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FAIRCORE4EOSC

EOSC PID Policy and FAIRCORE4EOSC: Measuring Compliance

Wednesday 16 November 2022
16:30-18:00
Room:
Main organiser: FAIRCORE4EOSC
Session Owners: Wim Hugo, DANS
EOSC Future Support: Maria Giuffrida, Trust-IT

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Programme

Time	Wednesday 16 November 2022
16h30-16h40	Welcome and Introductions (Wim Hugo)
16h40-16h50	The EOSC PID Policy and the Task Force (Tibor Kalman/ Themis Zamani)
16h50-17h00	The FAIRCORE4EOSC and FAIR-IMPACT Projects, objectives of relevant work packages in the projects, and explaining the breakouts (W Hugo, Jessica Parland-von Essen)
17h00-17h40	Breakout 1: Scope of EOSC PID policy - How the requirements in the policy map to different stakeholders in the PID landscape (moderator - J Parland-von Essen) Breakout 2: Ways to measure compliance with the policy: qualitative and quantitative measures (moderator - Wim Hugo)
17h40-18h00	Feedback on Breakout 1 (Themis Zamani, 5 mins) Feedback on Breakout 2 (Wim Hugo, 5 mins) Next steps and closure (Wim Hugo, 5 mins)

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EOSC PID Policy Task Force

Themis Zamani

- Lorem Ipsum …

PID Policy & Implementation Task Force

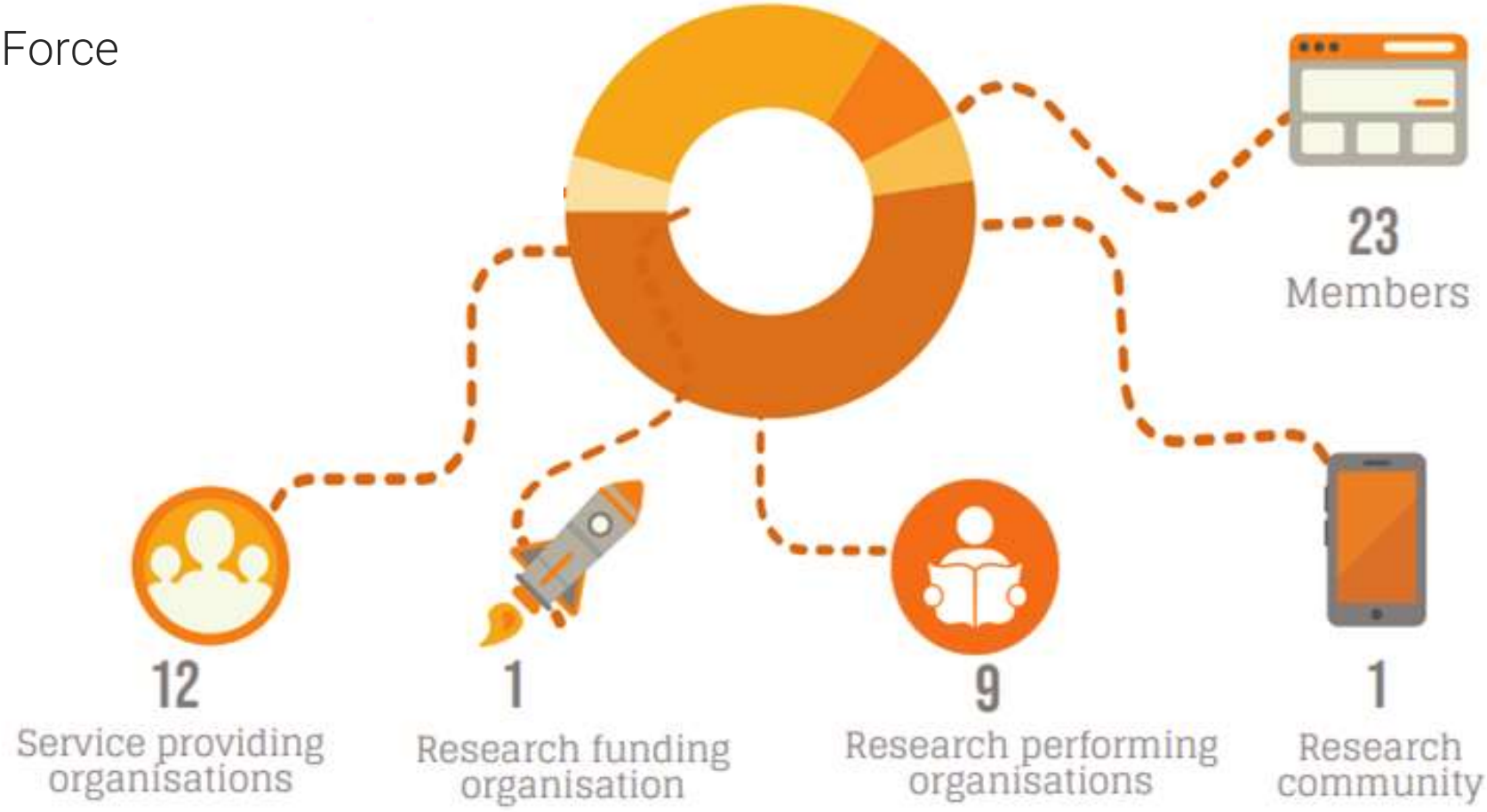
Let introduce our Task Force

EOSC PID Policy document

EOSC PID Architecture document

TF Charter

SRIA



Zan

- A balanced group of PID users , PID experts (including technology and domain experts), and PID Providers.

Task Force Goals

Goals & Core Activities

1. Provide input to the EOSC Board starting from the gaps identified in the PID ecosystem mentioned in the SRIA,
2. Ensure EOSC objectives are attained
3. Implement and refine the EOSC PID policy and architecture by aligning with the principles of Open Scholarly Infra and by building consensus within the community.

The **“core activities”** that should be carried out during the lifetime of the task force:

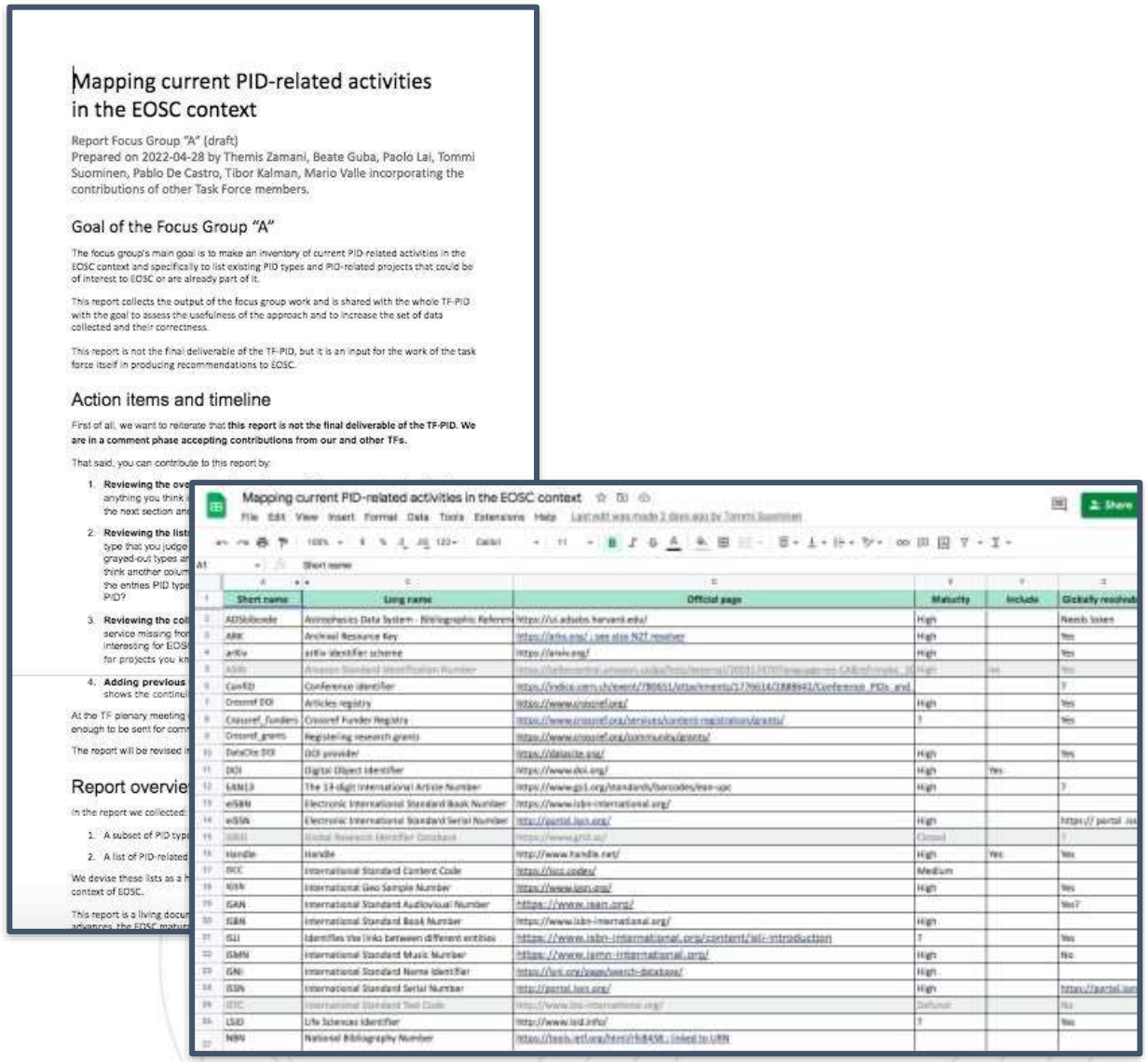
1. Identify and describe both emerging and standardized identifiers for resource types not yet been mentioned in the PID policy;
2. Investigate use cases and make recommendations about global PID resolution services, including ‘meta resolvers’, that can deal with any type of relevant identifier;
3. Review efforts to develop definitions for the most common EOSC data formats or building blocks;
4. Make an inventory of efforts to implement an EOSC PID knowledge graph;
5. Set up the criteria against which PID services will be certified to join the EOSC Marketplace, and provide specifications for tools that support the certification of PID infrastructure against the EOSC PID Policy;
6. Collect best practice PID use cases that exemplify FAIR data management and share them with the EOSC community.

PID TF: Work done until

Goals & Core Activiities

1. Group A: Mapping current PID-related activities in the EOSC context
    a. A subset of PID types that could be the primary focus for EOSC
    b. A list of PID-related projects and providers.

1. Group B: Collecting community-specific use cases and perspectives on the EOSC PID architecture and the EOSC PID policy
    b. A Survey run
    c. In the process of creating - validating the results



Mapping current PID-related activities in the EOSC context

Report Focus Group "A" (draft)
Prepared on 2022-04-28 by Themis Zamani, Beate Guba, Paolo Lai, Tommi Suominen, Pablo De Castro, Tibor Kalman, Mario Valle incorporating the contributions of other Task Force members.

Goal of the Focus Group "A"

The focus group's main goal is to make an inventory of current PID-related activities in the EOSC context and specifically to list existing PID types and PID-related projects that could be of interest to EOSC or are already part of it.

This report collects the output of the focus group work and is shared with the whole TF-PID with the goal to assess the usefulness of the approach and to increase the set of data collected and their correctness.

This report is not the final deliverable of the TF-PID, but it is an input for the work of the task force itself in producing recommendations to EOSC.

Action items and timeline

First of all, we want to reiterate that **this report is not the final deliverable of the TF-PID. We are in a comment phase accepting contributions from our and other TFs.**

That said, you can contribute to this report by:

1. **Reviewing the ove**
2. **Reviewing the list**
3. **Reviewing the col**
4. **Adding previous**

Report overvie

Mapping current PID-related activities in the EOSC context

Short name	Long name	Official page	Maturity	Include	Globally resolvab
ADSbibcode	Astrophysics Data System - Bibliographic Referen	https://ui.adsabs.harvard.edu/	High		Needs listen
ARK	Archival Resource Key	https://arks.org/ ; see also N2T resolver	High		Yes
arXiv	arXiv identifier scheme	https://arxiv.org/	High		Yes
ASIN	Amazon Standard Identification Number	https://en.wikipedia.org/wiki/Amazon_Standard_Identification_Number	High		Yes
CamID	Conference identifier	https://indico.cern.ch/event/780651/attachments/1779614/2888941/Conference_PIDs_and_			?
Crossref DOI	Articles registry	https://www.crossref.org/			Yes
Crossref_funders	Crossref Funder Registry	https://www.crossref.org/services/content-registration/grants/	?		Yes
Crossref_grants	Registering research grants	https://www.crossref.org/community/grants/			
DataCite DOI	DOI provider	https://datacite.org/	High		Yes
DOI	Digital Object Identifier	https://www.doi.org/	High	Yes	
EAN13	The 13-digit International Article Number	https://www.gs1.org/standards/barcodes/ean-upc	High		?
eISBN	Electronic International Standard Book Number	https://www.isbn-international.org/			
eISSN	Electronic International Standard Serial Number	http://portal.issn.org/	High		https://portal.iss
GRID	Global Research Identifier Database	https://www.grid.ac/	Closed		?
Handle	Handle	http://www.handle.net/	High	Yes	Yes
IMT	International Standard Content Code	https://isan.codes/	Medium		
ISNI	International Geo Sample Number	https://www.isni.org/	High		Yes
ISAN	International Standard Audiovisual Number	https://www.isan.org/			Yes?
ISBN	International Standard Book Number	https://www.isbn-international.org/	High		
ISLI	Identifies the links between different entities	https://www.isbn-international.org/content/isli-introduction	?		Yes
ISMN	International Standard Music Number	https://www.ismn-international.org/	High		No
ISNI	International Standard Name Identifier	https://isni.org/page/search-database/	High		
ISSN	International Standard Serial Number	http://portal.issn.org/	High		https://portal.iss
IMT	International Standard Text Code	http://www.iso-international.org/	Defunct		No
LSID	Life Sciences Identifier	http://www.lsid.info/	?		Yes
NBN	National Bibliography Number	https://tools.ietf.org/html/rfc8458 ; inked to URN			

PID TF: external collaboration

Goals & Core Activities

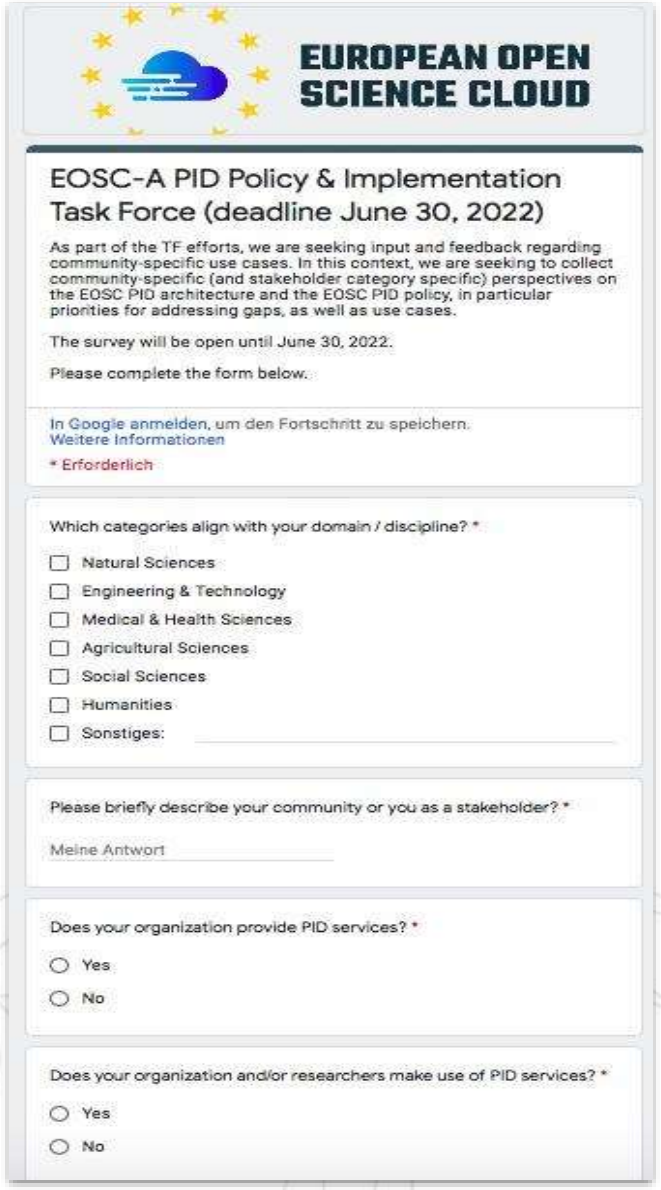
1. PID-related projects, communities and providers
    a. technology- and domain experts
2. other TFs

	Project name	# of TF members having a link
EOSC-01-01	Skills4EOSC	4
EOSC-01-02	EOSC Focus	2
EOSC-01-03	FairCore4EOSC	4
EOSC-01-04	EuroScienceGateway	
EOSC-01-04	FAIR-EASE	
EOSC-01-04	RAISE	
EOSC-01-05	FAIR-IMPACT	3
EOSC-01-06	EOSC4Cancer	1

Next Steps

Goals & Core Activities

1. Group A: Mapping current PID-related activities
    a. Review the report and include feedback received
2. Group B: Collecting community-specific use cases and perspectives on the EOSC PID architecture and the EOSC PID policy
    a. Draft recommendations report identifying gaps and potential groups to address these
3. New focus groups will be set up to support the “core activities” that should be carried out during the lifetime of the task force (eg “meta-resolver”, etc)
    a. Harmonization of PIDs
    b. Metaresolver


EUROPEAN OPEN SCIENCE CLOUD

EOSC-A PID Policy & Implementation Task Force (deadline June 30, 2022)

As part of the TF efforts, we are seeking input and feedback regarding community-specific use cases. In this context, we are seeking to collect community-specific (and stakeholder category specific) perspectives on the EOSC PID architecture and the EOSC PID policy, in particular priorities for addressing gaps, as well as use cases.

The survey will be open until June 30, 2022.

Please complete the form below.

In Google anmelden, um den Fortschritt zu speichern.
Weitere Informationen

* Erforderlich

Which categories align with your domain / discipline? *

- [ ] Natural Sciences
- [ ] Engineering & Technology
- [ ] Medical & Health Sciences
- [ ] Agricultural Sciences
- [ ] Social Sciences
- [ ] Humanities
- [ ] Sonstiges:

Please briefly describe your community or you as a stakeholder? *

Meine Antwort

Does your organization provide PID services? *

- ○ Yes
- ○ No

Does your organization and/or researchers make use of PID services? *

- ○ Yes
- ○ No

FAIRCORE4EOSC

Wim hugo

- Lorem Ipsum …

Context

Enhancing FAIRness in the EOSC ecosystem

The European Open Science Cloud (EOSC) is an ecosystem of research data and related services that will enable and enhance seamless access to and reliable re-use of FAIR research objects (including data, publications, software, etc.).

The Strategic Research and Innovation Agenda (SRIA) for EOSC was created in 2021, as a roadmap for future development. Priorities highlighted in the SRIA are the establishment of the Web of FAIR data and a Minimum Viable EOSC (MVE) by 2027, that is the core components and functions to enable EOSC to operate (the EOSC-Core).

2021

Minimum Viable eosc

Web of FAIR Data

Findable Accessible Interoperable Reusable

2027

Challenges addressed

Developing the EOSC-Core

The EOSC-Core development has been initiated in the Horizon 2020 calls, but some of the challenges that require to be addressed are:

- *Identifiers:* Introducing new resource types; machine-actionable persistent identifiers (PIDs); establishing a PID meta-resolver; standardising PID graphs; PID compliance framework to ensure compliance to the EOSC PID policy and to ensure quality of service for PIDs;
- *Metadata and Ontologies:* Provide or embrace/stimulate existing registries of metadata schemas, ontologies and crosswalks, develop services that build on metadata registries and can facilitate the creation and sharing of crosswalks;
- *Interoperability:* Enable discovery of data sources available in different formats, making search tools available; Provide tools for quality validation of metadata records and of digital objects; Implement EOSC PID Policy;
- *Research Software*: metadata description standards for research software, automated deposit of new releases into a scholarly repository and Software Heritage.

FAIRCORE4EOSC in a nutshell

The project

Call title: Deploying EOSC-Core components for FAIR Research and Innovation Action

Budget: 10 million EUR

Duration: June 2022 – May 2025

Consortium: 22 partners, coordinated by CSC – IT Center for Science

Website: faircore4eosc.eu

Key results: In response to the gaps identified in the SRIA, the project will develop nine new EOSC-Core components aimed to improve the discoverability and interoperability of an increased amount of research outputs.

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Amsterdam, Netherlands – Kick-off meeting, June 2022

The 9 FAIRCORE4EOSC components

EOSC Research Discovery Graph (RDGraph) to deliver advanced discovery tools across EOSC resources and communities.

EOSC PID Graph (PIDGraph) to improve the way of interlinking research entities across domains and data sources on the basis of PIDs.

EOSC Metadata Schema and Crosswalk Registry (MSCR) to support publishing, discovery and access of metadata schemas and provide functions to operationalise metadata conversions by combining crosswalks.

EOSC Data Type Registry (DTR) to provide user friendly APIs for metadata imports and access to different data types and metadata mappings.

EOSC PID Meta Resolver (PIDMR) to offer users a single PID resolving API in which any kind of PID can be resolved through a single, scalable PID resolving infrastructure.

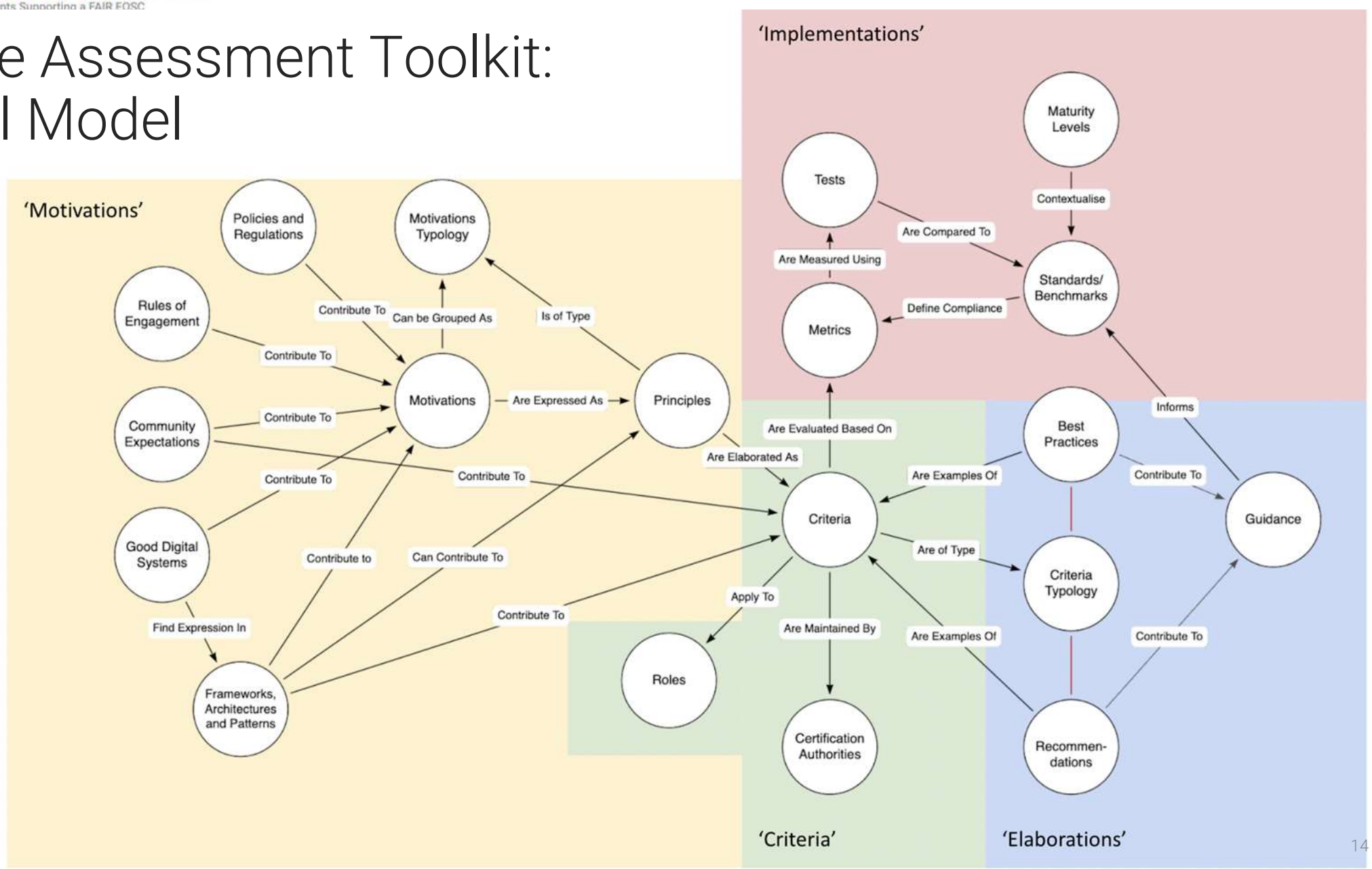
EOSC Compliance Assessment Toolkit (CAT) to support the EOSC PID policy compliance and implementation.

EOSC Research Activity Identifier Service (RAiD) to mint PIDs for research projects, allowing to manage and track project related activities.

EOSC Research Software APIs and Connectors (RSAC) to ensure the long-term preservation of research software in different disciplines.

EOSC Software Heritage Mirror (SWHM) to equip EOSC with a mirror of the Software Heritage universal source code archive.

Compliance Assessment Toolkit: Conceptual Model



FAIR-IMPACT

Jessica Parland-von Essen

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Expanding FAIR solutions across EOSC

Expanding FAIR Solutions across Europe

Call HORIZON-INFRA-2021-EOSC-01-05

Enabling discovery and interoperability of federated research objects across scientific communities

36 Month EU funded project started in June 2022

28 partners involved in the project

Coordination and Support Action

4 project management and governance bodies

3 coordination mechanisms

4 Support Tiers to enable adoption and implementation

FAIR-IMPACT overall objective

WHAT:
to realise a FAIR EOSC by supporting the implementation of FAIR-enabling practices across scientific communities and research outputs at a European, national, and institutional level;

HOW:

- identifying current and emerging components for enabling FAIR (practices, policies, tools & technical specifications);
- translating viable solutions, guidelines and frameworks that have been developed for one domain or research output and supporting their application in others;
- taking the next step in implementation by defining the support, governance, and coordination mechanisms required to ensure the continuous function of FAIR-enabling practices in the EOSC.

FAIR-IMPACT Core Partners

Data Archiving and Networked Services
DANS

CSC

DCC

INRAE

DeiC

Trust-IT Services
communicating to markets

The FAIR-IMPACT Consortium

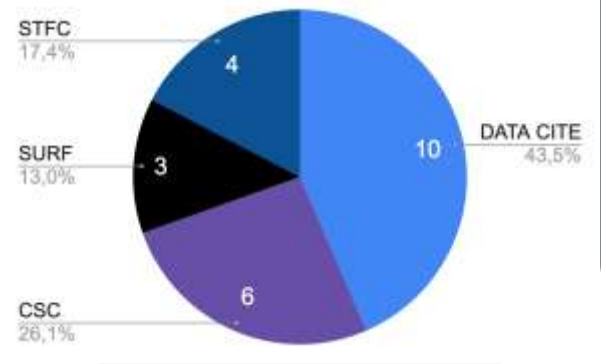
FAIR-IMPACT Work Packages

WP 3 PIDs

Task 3.1

DataCite

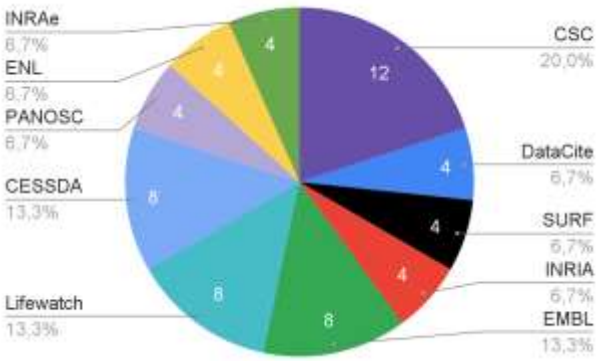
Setting up a coordination mechanism for EOSC PID service providers



Task 3.2

CSC

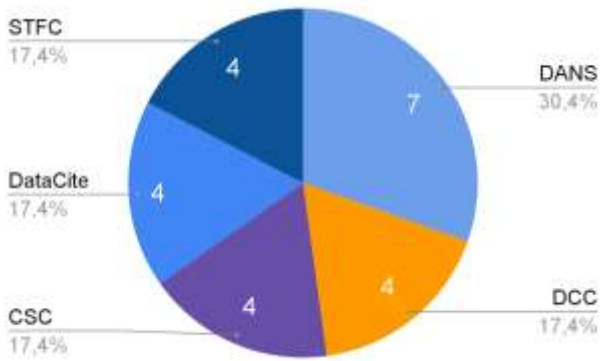
Integration of PID practices into FAIR data management



Task 3.3

DANS

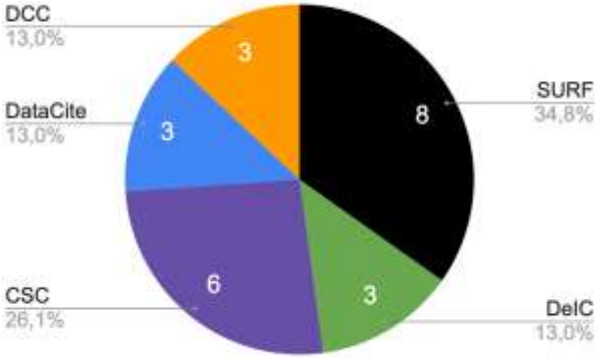
EOSC PID Policy alignment & support



Task 3.4

SURF

PID implementation programme



Task 3.3 EOSC PID Policy alignment & support

This task work involves identifying and analysing different EOSC actors and mapping PID policies available, **e.g., policies for repositories and RIs on the ESFRI roadmap.**

This work will produce **a blueprint supporting** communities i**n defining and writing machine actionable PID policies** aligned with the EOSC PID policy **including the PID assessment toolkit**. PID policies are vital for ensuring persistence and trustworthiness and alignment with EOSC core services.

Based on MS3.5 and MS3.6, this task will deliver D3.3. Guidelines for creating a user tailored EOSC compliant PID policy

The work will be interlaced and coordinated with T3.4. PID implementation programme

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Aligning compliance assessment with the broader compliance environment

Compliance Assessment Toolkit

Breakout 2

FAIR-IMPACT

Community expectations in respect of PID implementation and services, partly expressed in policy

Breakout 1

EOSC PID Policy TF

Implement and refine the EOSC PID policy and architecture by aligning with the principles of Open Scholarly Infra and by building consensus within the community.

EOSC PID Policy

Aligned with community expectations, measurable, and linked to other assessment of compliance and the broader PID/ Research Graph

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Breakout 1

Jessica Parland-von Essen

- Lorem Ipsum

Mapping the EOSC PID Policy requirements

PID policies are needed for

- organisations,
- infrastructures,
- research projects,
- data service providers
- national policies …

But what is important to consider in these different contexts?

To help with this we will need your help to understand which requirements concern which actors in the landscape. - We will be using a Menti!

We also hope to get your comments and reflections on the policy.

https://www.menti.com/aldfjiz5q9zu

PID Policy Roles

PID Authority. A controller responsible for maintaining the rules for defining the integrity of PIDs within a PID Scheme. These rules may include setting standards for lexical formats, algorithms and protocols to ensure global uniqueness, together with setting quality of service conditions to enforce compliance to the rules. PID Authorities may be organisations (e.g. DOI.org), which enforce control over a PID infrastructure. But there may also be Authorities which do not have a central control (for example Software Heritage persistent identifiers1 and W3C's Decentralized Identifiers2), but provide a community standardisation mechanism that specifies the conformance of PIDs to a PID Scheme.

PID Service Provider. An organisation which provides PID services in conformance to a PID Scheme, subject to its PID Authority. PID Service Providers have responsibility for the provision, integrity, reliability and scalability of PID Services, in particular the issuing and resolution of PIDs, but also lookup and search services, and interoperability with a generic resolution system.

PID Manager. PID Managers have responsibilities to maintain the integrity of the relationship between entities and their PIDs, in conformance to a PID Scheme defined by a PID Authority. A PID Manager will typically subscribe to PID services to offer functionality to PID Owners within the PID Manager's services. One example is a Service Provider which uses PID Services as part of its own service delivery. For example, PID Managers may include a provider of a data repository, a data catalogue, or a research workflow system.

PID Owner. An actor (an organisation or individual) who has the authority to create a PID, assign PID to an entity, provide and maintain accurate Kernel Information for the PID. A new PID Owner must be identified and these responsibilities transferred, if the current PID Owner is no longer able to carry them out.

End User. The end user of PID Services, for example researchers, or software, or services produced to support researchers.

Breakout 2

Wim Hugo

- Lorem Ipsum

EOSC PID Policy: Specifics

Assessing the current PID Policy Provisions

- Do we need to add any actors or stakeholder groups?
- Scope of provisions (Breakout 1)
- How does one measure and benchmark performance in respect of the policy provisions?

Pointers:

- Each policy provision or criterion can have
  - A **Measure**/ method (How we verify compliance)
  - A **Metric** (Returned by the method)
    - Classes of metrics: numeric, boolean, ranking, …
  - **Benchmark**/ context (how do we know if the metric is OK?)

Measurement Mechanisms and Methods

- Quantitative
  - Simple Review
  - Guided Review
  - Benchmarked Review
  - Subjective Ranking
- Quantitative
  - Binary
  - Measured Value
  - Extent (of Compliance)
  - Objective Ranking
- Hybrid
  - Classification

Measurement Options

Simple Review	Qualitative evaluation by an assessor without any benchmarking or guidelines
Guided Review	Explanations on how to approach assessment of compliance is available
Benchmarked Review	As for guided assessment, but it is possible to select a level of compliance by matching with described performance or examples
Subjective Ranking	Assessment by assigning a ranking to a compliance claim or description (subjectively)
Binary	True or false, for example by determining whether there is evidence supporting a compliance claim
Measured Value	Measuring objectively using an instrument and a method, result is a defined variable - for example 'number of employees'
Extent of Compliance	Aggregation of a collection/ hierarchy of weighted and normalised measures
Objective Ranking	Ranking against peers through quantitative methods, e.g. pairwise comparison
Classification	Supervised or unsupervised classification based on ML mechanisms or heuristics

Next Steps

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Workshop Report

- Align conceptual model with feedback
- Confirm vocabulary to describe measurement methods and assign to criteria
- Include FAIR-IMPACT feedback into conceptual model and vocabulary

Publish conceptual model and a **framework for compliance assessment** (services, methods, vocabularies) for community feedback (Spring 2023)

PID Policy TF

Amendments (if any) to policy based on community feedback from FAIRCORE4EOSC and FAIR-IMPACT

FAIR-IMPACT

Workshop Report

- Confirm scope and content of policy provisions/ criteria
- Confirm scope of actors and roles

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Youtube: FAIRCORE4EOSC

Enquiries: Anu Märkälä <anu.markala@csc.fi> (Programme Office)

Bridging the gap between technical development and user communities in EOSC
https://www.youtube.com/watch?v=c4_kpiR4naE

A FAIR collaboration explained by Ingrid Dillo (FAIR-IMPACT) & Tommi Suominen (FAIRCORE4EOSC)
https://www.youtube.com/watch?v=VUOeMA725Rw

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