FAIRCORE4EOSC
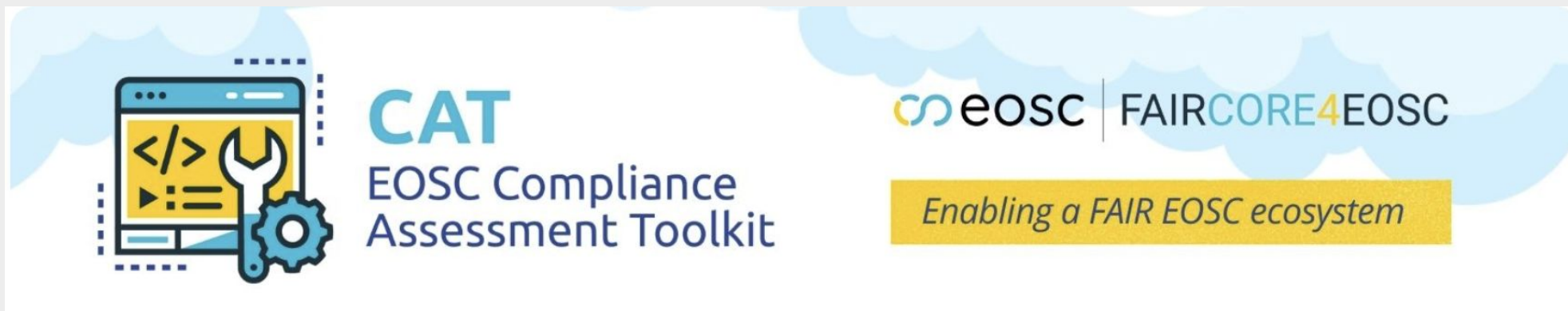
Developing EOSC-Core components
to enable a FAIR EOSC ecosystem

14 | 05 | 2024 by Wim Hugo, DANS, Themis Zamani, GRNET

Details on PID Policy

Expectations

Current Collaboration Blueprint

Three threads …

The **PID Policy and Implementation Task Force** (PID TF) is dedicated to identify the gaps in the PID ecosystem that has been mentioned in the current SRIA version, especially to highlight mature and recognised PID infrastructures for emerging resource types, to standardise the PID graph, to integrate PIDs into FAIR data management, and to address PIDs and sensitive data (among others). It will provide different kinds of recommendations on PIDs management and **will set up criteria and certification of PIDs**
.

The **Compliance Assessment Toolkit** will support the EOSC PID policy with services to encode, record, and query compliance with the policy. It delivers a **conceptual model** for assessment together with **vocabularies**, **API services**, and **user interfaces** whereby actors can assess compliance with PID policy applicable to their context.

- Setting up a **coordination mechanism** for EOSC PID service providers
- **Ensuring end user needs are met** when the EOSC PID landscape and solutions are developed
- Ensuring **alignment with EOSC policies** and architecture of the PID infrastructures
- Delivering **support instruments for facilitating uptake** (best practices, assessment toolkit, user documentation).

Process
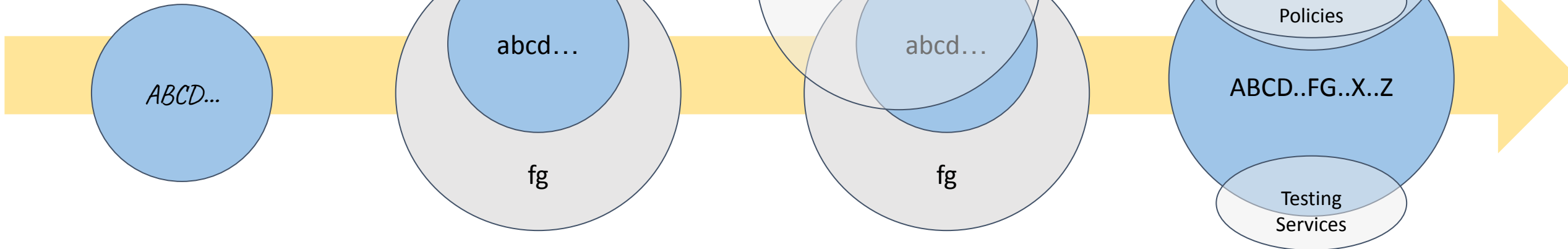
European Commission, Directorate-General for Research and Innovation, Hellström, M., Heughebaert, A., Kotarski, R., et al., **A Persistent Identifier (PID) policy for the European Open Science Cloud (EOSC),** Publications Office, 2020, https://data.europa.eu/doi/10.2777/926037

Hugo, W., Steinhoff, W., Turner, D., Buys, M., & Zamani, T. (2023). D2.1 **Compliance Assessment Specification**. Zenodo. https://doi.org/10.5281/zenodo.10067253

Work in Progress: FAIR-IMPACT WP3

Community Expectations
Use Cases
Workflows
PID Policies
Best Practices

Work in Progress: FAIR-IMPACT WP3, FC4E WP2

PID Knowledge Base integrated with CAT
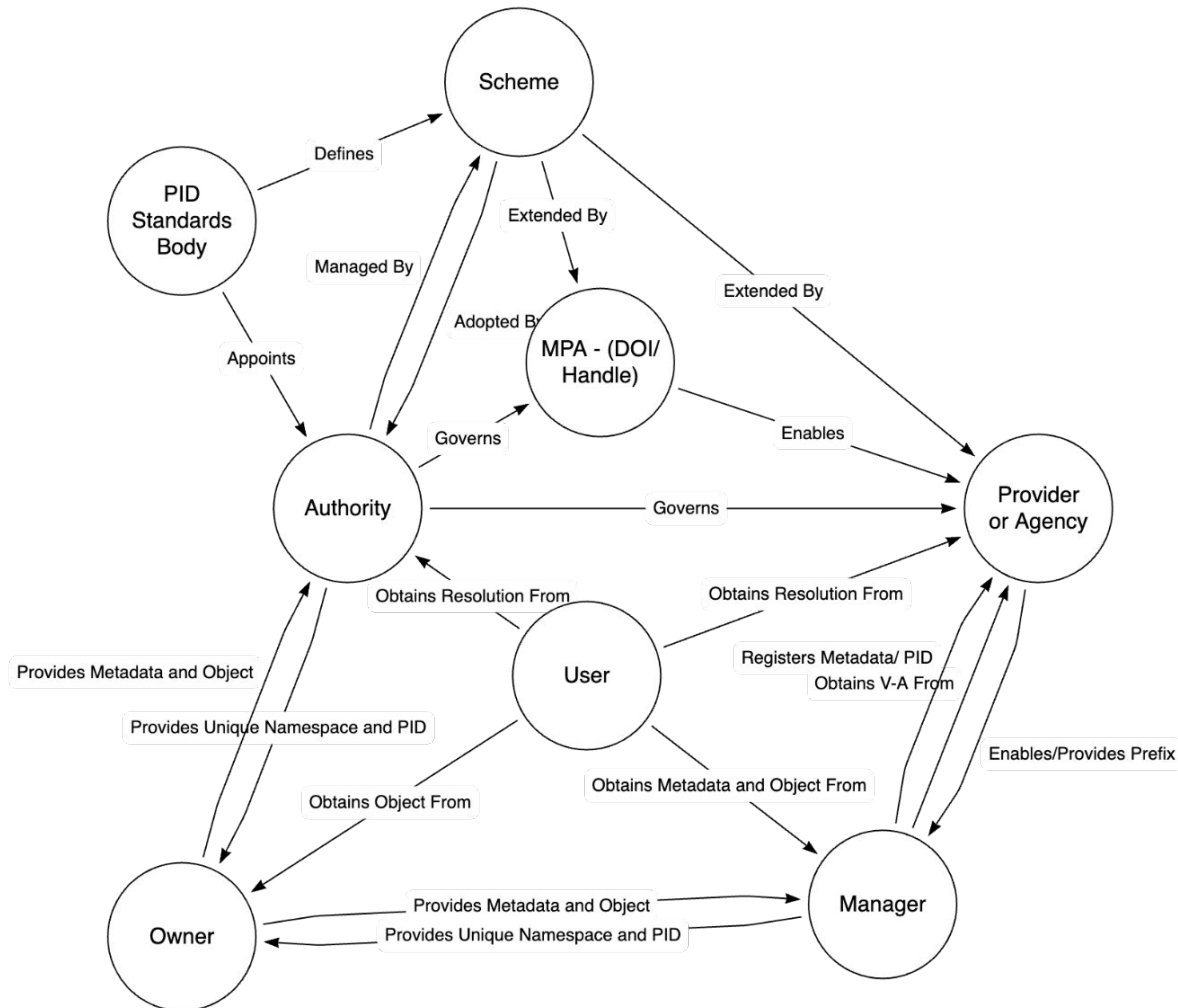
Compliance Assessment Toolkit

EOSC PID Policy compliance for all actors in the ecosystem.

Conceptual Model
EOSC PID Policy Mapping to the Model
Knowledge Base Development

Entities (Actors and Roles)

The actors in the PID ecosystem are related in specific ways, and this is already partly captured by the EOSC PID Policy. FC4E has made some specific recommendations for amendments and extension of the actor definitions, and this is being refined in F-I WP3.

Introduce the concept of a 'PID Stack':

Scheme	Standards Body	Authority	MPA	Provider	Manager
Handle	IETF	DONA	DOI Foundation	DataCite	Zenodo
Handle	IETF	DONA	DOI Foundation	DataCite	DANS
Handle	IETF	DONA	DOI Foundation	IGSN	e.g GeoScience Aus
Handle	IETF	CNRI	DOI Foundation	CrossRef	…
URN	IETF	URN:NBN	N/A	URN:NBN-NL	KB

Full Story

Implementations (Metrics, Benchmarks, Assessment)

Entities —Own→ Objects/Services —Subjected to→ Tests —Has Type→ Test Typology

Objects/Services ←Applies to— Assessments

Tests —Are Evaluated Using→

Contribute To : Algorithm

Are Compared To

Policies and Regulations

Motivations Typology

Assessments —Are compiled for→ Metrics

Standards/Benchmarks ←Contextualise— Maturity Levels

Rules of Engagment —Contribute To→ Motivations

Contribute To / Can be Grouped As

Assessments —Are combined in : Mechanism→ Metrics

Metrics ←Define Compliance— Standards/Benchmarks

Motivations —Are Expressed As→ Principles/Objectives

Is of Type

grouped By

Community Expectations —Contribute To→ Motivations

Systems-Related —Contribute To→ Motivations

Have

Apply To

Principles/Objectives —Aggregated In→

Metrics ←Are Evaluated Based On—

Are Elaborated As→ Criteria

Criteria ←Are Examples Of— Best Practices —Contribute To→ Guidance

Best Practices —Define→ Maturity Levels

Best Practices —Informs→

Best Practices —Contribute To→ Recommendations

Maturity Levels —Define→ Guidance

Recommendations —Contribute To→ Guidance

Criteria —Are verified by→ Tools

Criteria —Are Examples Of← Recommendations

Criteria —Has Type→

Tools

Apply To

Apply To / Maintained By

Are of Type

Criteria Typology ←Has Type— Recommendations

Endorse or Develop

Domain ←Characteristic Of— Roles/Cases

Certification Authorities

Motivations
(Principles, Objectives)

Realisation
(Criteria)

Elaboration (Best Practice, Guidelines, …)

Principles, Criteria, Metrics, and Benchmarks

Criteria

#	Principle or Objective	Suggested Criterion	Description	Metric	Benchmark
C1	Preferred Unambiguous Interoperability	Minimum Operations	Service providers **SHOULD** provide a common Application Programming Interface to interact with PIDs, supporting a minimum set of operations (create, resolve and modify PID and PID Kernel Information)	$\Sigma\,T_{1,\,n}$	$=0 \rightarrow 0$ $>1 \rightarrow 1$
C2	Secure Viable, Trusted	Sensitive Metadata	Sensitive kernel metadata **MAY** require access control and/or encryption of the Kernel Information.	$\Sigma\,T_{2,\,n}$	$<5 \rightarrow 0$ $=5 \rightarrow 1$

Criteria and Actors

Applicability of Criteria to Actors

#	Criterion	Imperative	Scheme	Authority	Service	Manager	Owner
C1	Minimum Operations	SHOULD			✓		
C2	Sensitive Metadata	MAY		✓	✓		
C3	Ownership	MUST		✓	✓		
C4	Maintenance	SHOULD					✓
C5	Update Functionality	MUST			✓	✓	
		SHOULD				✓	

Tests

Tests

#	Test	Description	Type	Method	Guidance
$T_{1,1}$	CREATE	Create a PID and provide kernel information: API exists and evidence (URL) is available	Binary	Yes = 1 No = 0	G1
$T_{1,2}$	UPDATE	Update kernel information for existing PID: API exists and evidence (URL) is available	Binary	Yes = 1 No = 0	G1
$T_{1,3}$	Resolution Service	Resolution API (URL) or URI Pattern exists, evidence is provided	Binary	Yes = 1 No = 0	G1
$T_{2,1}$	Secure - Encrypted	API services are encrypted (HTTPS)	Binary	Yes = 1 No = 0	G2

Guidance

#	Guidance
G1	One may extend the tests to recognise typical and popular standards for API implementation, such as REST, SmartAPI, and the like.
G2	A series of 5 tests are proposed, all of which need to be satisfied to enable encryption and access control for sensitive metadata. Some of these tests may not apply to all use cases - a topic for future refinement.
G3	In practice, this may require multiple tests, since in some cases, the ownership is encoded in metadata at the Manager (entity metadata), and in some cases with the Provider or the Authority. In addition, it will require definition of the path or retrieval mechanism for the information, which may be different for each scheme, authority, service, or manager. It could also be different depending on the Kernel Information Profile. Suggestion: store the retrieval instruction
G4	In practice, evaluation is very difficult, due to two factors:

Detailed guidance for Managers being developed by FAIR-IMPACT Task 3.3, available end May 2024

Compliance Assessment Toolkit

EOSC PID Policy compliance for all actors in the ecosystem.

Workflows, Use Cases, Best Practices, Entities, ...

(René van Horik, Wim Hugo, DANS)

Use Cases, PID Stacks, and Desirable Features

Analysis of the landscape to generate a structured body of knowledge
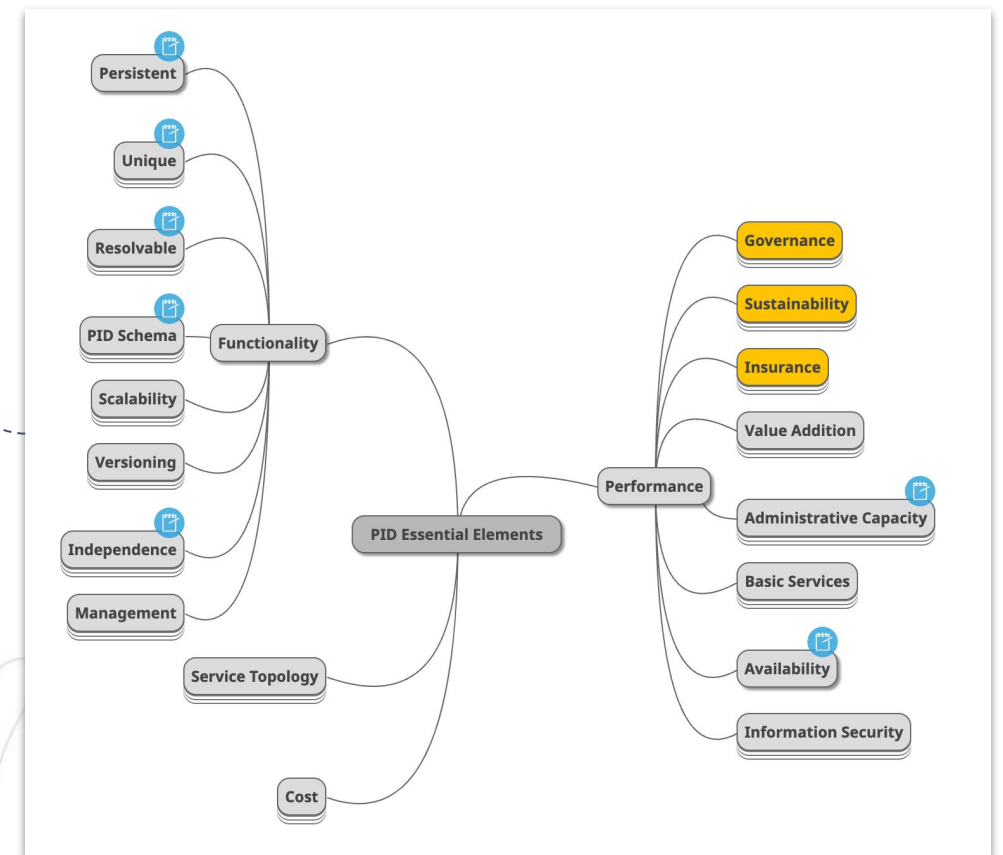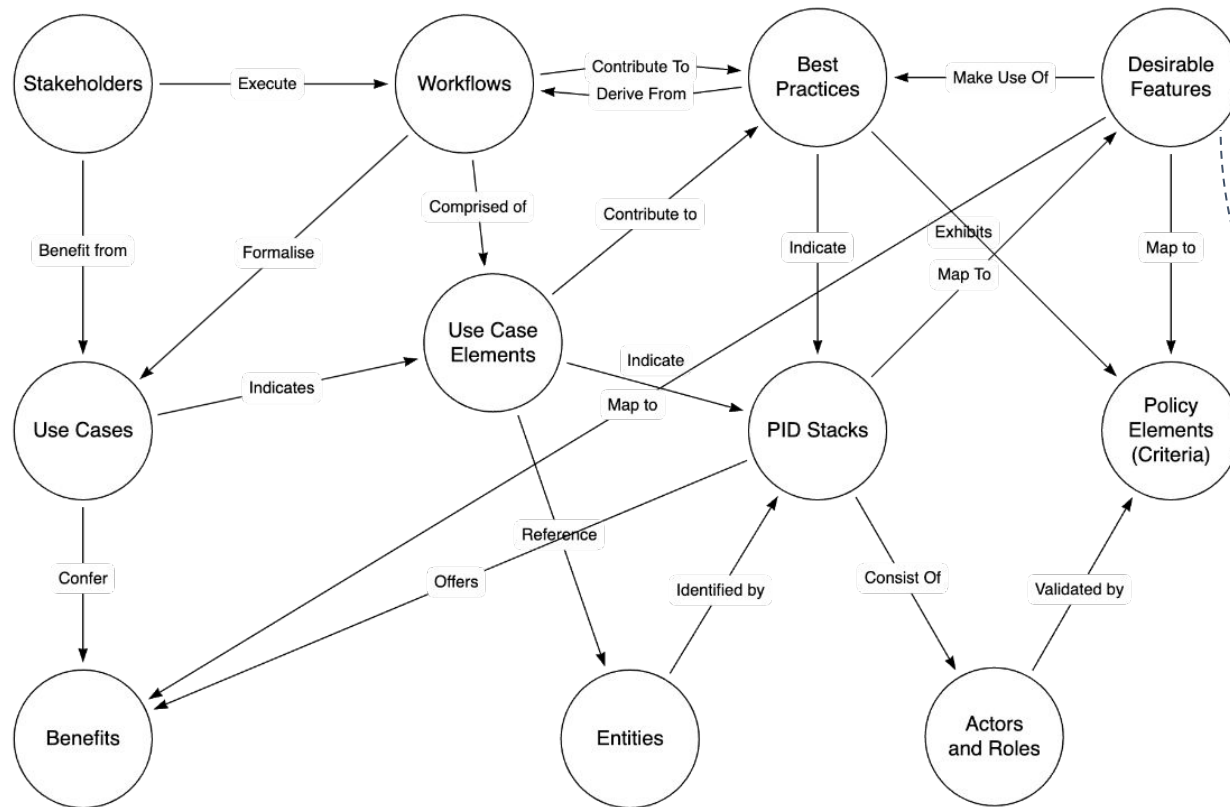
Use Cases, Elements, and Workflows

Case study	Function/ Entities	PID	Use Case Elements	Comments	Resolvable	Reference
Finland	Researchers, persons	ORCID	0	ORCID cannot be created posthumously		[48]
Finland	Researchers, persons	ISNI	0			[48]
Finland	Organisations	VAT Number	6		Not Yet	[48]
Finland	Organisations	RoR	6			[48]
Finland	Organisations	ISNI	6			[48]
Finland	Organisations	PIC	6		Not Yet	[48]
Finland						[48]
Finland						[48]
Finland						[48]

#	Country	Use Case Element	PID Stack	Status	Annotation Lir	Reference
1	Netherlands	Identification of researcher(s) for funding and reporting	ORCID	Recommended	https://hyp.is/dr5	[44]
2	Netherlands	Identification of research output for reporting	DOI	Recommended	https://hyp.is/dr5	[44]
3	Netherlands	Identification of research output for reporting	URN	Recommended	https://hyp.is/dr5	[44]
4	Netherlands	Identification of research output for reporting	ISSN	Recommended	https://hyp.is/dr5	[44]
5	Netherlands	Identification of research output for reporting	Handle	Recommended	https://hyp.is/dr5	[44]

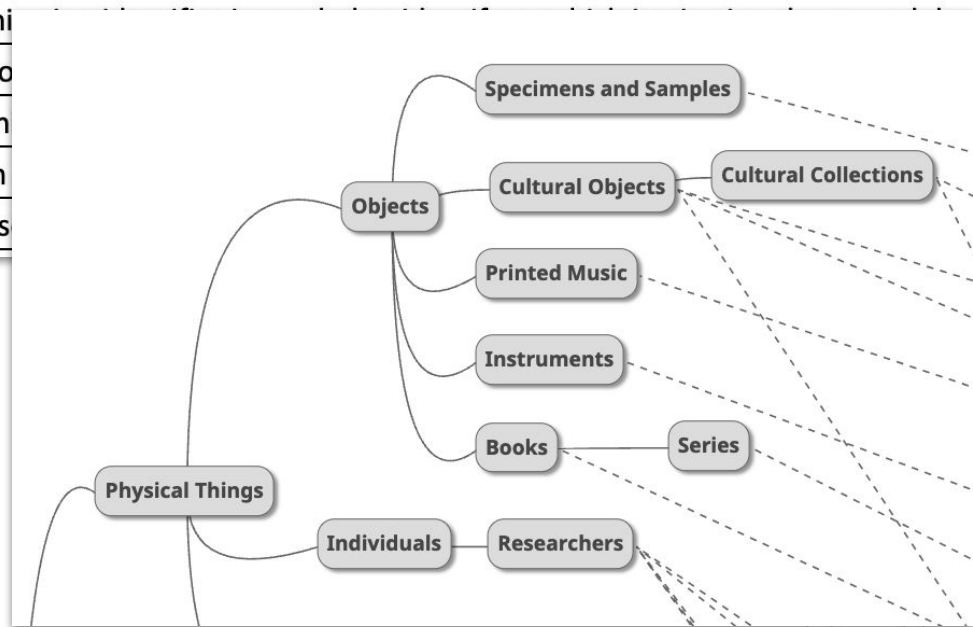| #	Use Case or Workflow	Description	DOI	Benefits	Reference	Annotation Link
1	Grant application processes				[47]	https://hyp.is/jsNzLIIV
1	Grant application processes	Researchers and institutions pass PIDs for previous grants, outputs, organisations, people, and projects to grant application systems	DOI ORCID ROR RAiD	1) Less manual data entry 2) More accurate data 3) More time for including contextual information	[52]	https://hyp.is/1enHZF
1	Grant application processes				[44]	https://hyp.is/TtWjdF
2	Content submission processes				[47]	https://hyp.is/jsNzLIIV
2	Content submission processes	Researchers share their ORCID iD when submitting new outputs and connect to ROR IDs for institutional affiliations and grant DOIs for funding	DOI ORCID ROR	1) More accurate data about co-authors, affiliations, and funding 2) Time/effort savings in review and metadata creation 3) Easier sign-in 4) Easier APC management 5) Easier reviewer selection and recognition	[52]	https://hyp.is/1enHZF

Research Life Cycle Activities

Research Management Processes

Reporting, Monitoring, and Evaluation Processes

Contextualisation and Compliance Processes

Grant Application Processes

Research Execution Processes

Domain Workflows and Protocols

Curation, Publication, and Preservation Processes

Value Addition and Reuse

Citation and Attribution

Record of Research Activity

Search and Discovery Processes

Entities

Currently being integrated with [FABIO](#)

#	Entity	Motivation	Reference
1	Datasets	Data set Identifier for data set is needed to locate and identify the source of the (reused) data.	[56]
1	Datasets	PIDs for research data	[59]
2	Person	A person identifier is needed to identify to whom the (reused) data belongs to, and possibly how to a	[56]
2	Person	PIDs for researchers and contributors	[59]
2	Person	A core principle of Linked data is to use URIs to identify important entities such as people. The followi	[63]
2	Person	A RO-Crate SHOULD have contact information, using a contextual entity of type ContactPoint.	[63]
3	Organisation	An organi...identif...which...belongs to, and ho	[56]
3	Organisation	PIDs for o	[59]
3	Organisation	An Organ...holarlyArticle or af	[63]
4	Software	Research...analysis pipelines a	[56]
4	Software	PIDs for s	[59]

15

Stakeholders

#	Category	Entity	Reference	Annotation Link
	Institutions	Public research performing organisations (RPO)	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Higher Education Institutions	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Research organisations	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Research funding organizations (RFOs)	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Policymakers	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Libraries	[47]	https://hyp.is/WwdROFITEe6
	Institutions	(Science) Publishers	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Service providers	[47]	https://hyp.is/WwdROFITEe6
	Institutions	Research Infrastructures	[47]	https://hyp.is/WwdROFITEe6
	Groups	Researchers	[47]	https://hyp.is/WwdROFITEe6
	Groups	Librarians	[47]	https://hyp.is/WwdROFITEe6
	Groups	Open Science/Open Access managers/coordinators	[47]	https://hyp.is/WwdROFITEe6
	Groups	CRIS system managers	[47]	https://hyp.is/WwdROFITEe6
	Groups	Repository managers	[47]	https://hyp.is/WwdROFITEe6
	Groups	Data stewards	[47]	https://hyp.is/WwdROFITEe6
	Groups	Data curators	[47]	https://hyp.is/WwdROFITEe6
	Groups	Researchers	[61]	https://hyp.is/kKYQnF4UEe6
	Institutions	Research organisations	[61]	https://hyp.is/7qA6Vl4UEe6y
	Institutions	Research funding organizations (RFOs)	[61]	https://hyp.is/7qA6Vl4UEe6y

Compliance Assessment Toolkit

Best Practices for Managers

Sources of Best Practice

- EOSC PID Policy

- FAIR-IMPACT
  - Review of Data and PID Policies (National, Institutional)
  - RDA Outputs and recommendations
  - Review of PID Stack documentation (recommended practices from providers, …)
  - Published use of PIDs in workflows and specific use cases

Sources of Best Practice

- EOSC PID Policy

- FAIR-IMPACT
  - Review of Data and PID Policies (N
  - RD
    re
  - Re
    do
    pr
  - Pu
    workflows and specific use cases

Focus on mainstream, object-referencing identifiers. Many use cases require PIDs that have different characteristics and features

eosc PID policy

eosc FAIR-IMPACT
Expanding FAIR solutions across EOSC

Elements, Characteristics, and Attributes of PID Stacks

Workflows, Use Cases, and Benefits of PIDs

Best Practices: Authorities

Best Practices: Providers and Agencies

Best Practices: Managers

Best Practices: Owners

Institutional and National Policy Advice
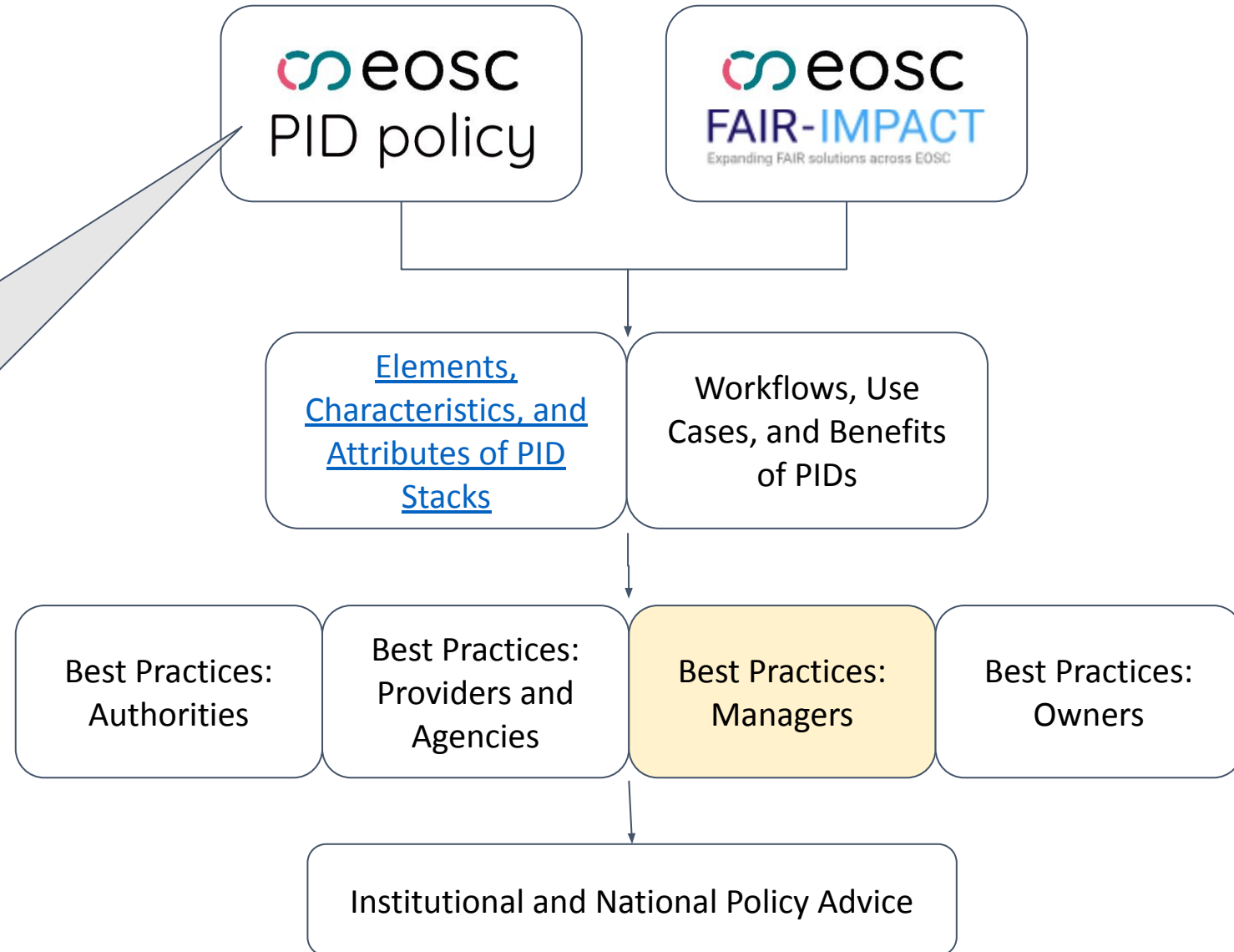
Elements, Characteristics and Attributes of PID Stacks
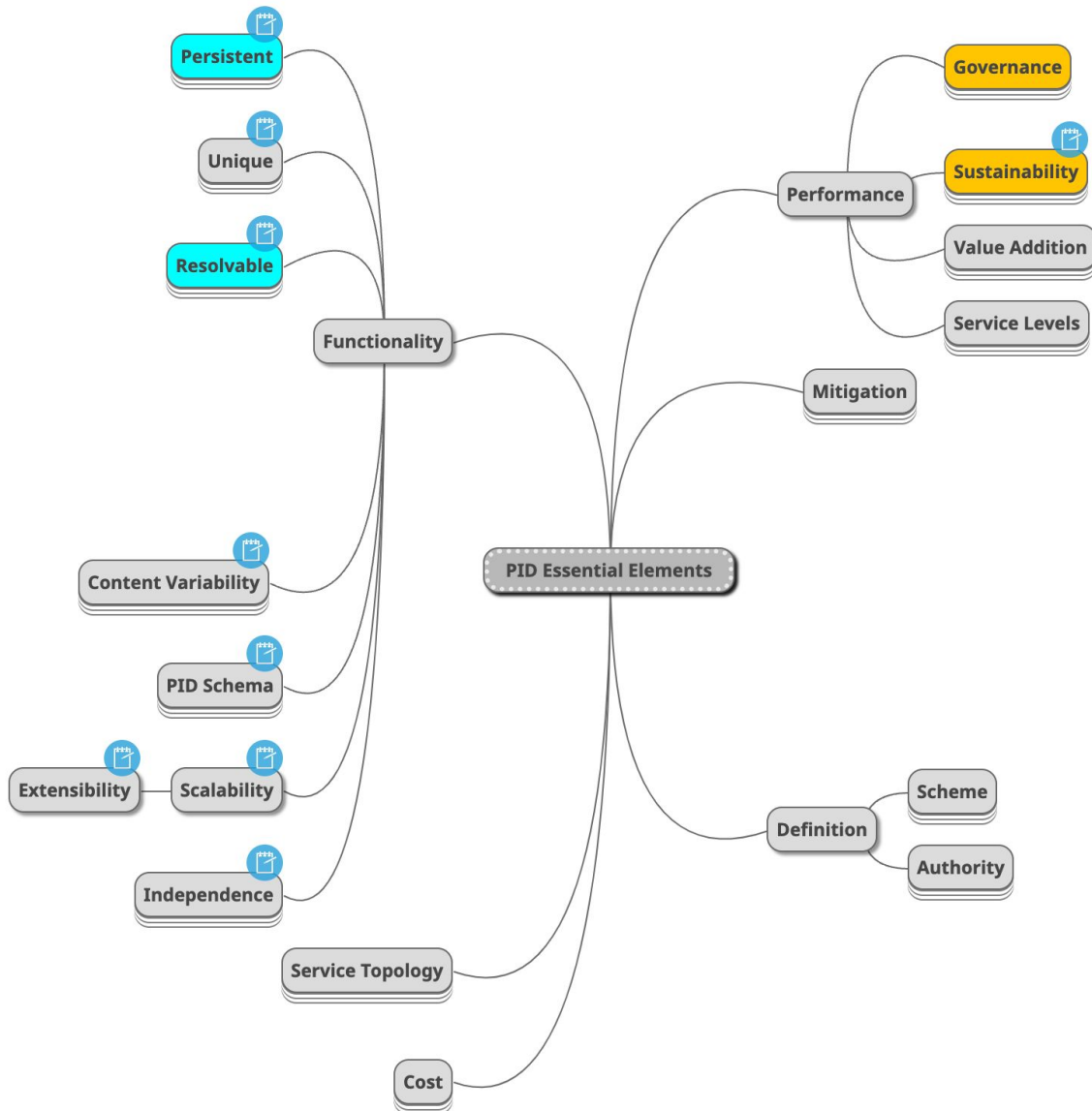
This inventory and classification is in development by the FAIR-IMPACT project. It consolidates the expectations of the community, assertions and features advertised by PID Stacks, and the content of the EOSC PID Policy into a multi-level hierarchy.

Live version

Compliance Assessment Toolkit

Design

Main Components and Services
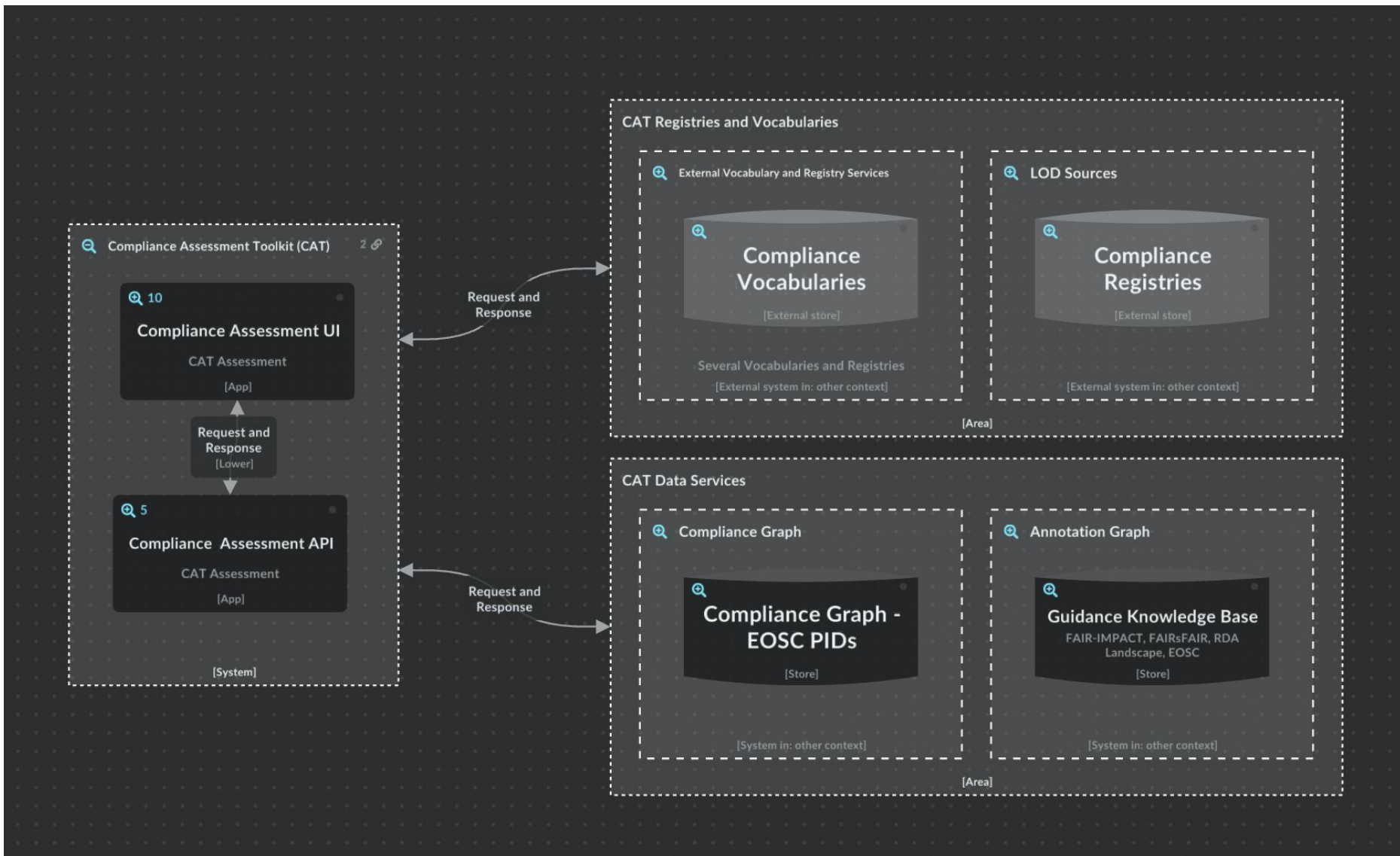
Compliance Assessment Toolkit

Demonstration

FAIRCORE4EOSC Compliance Assessment Toolkit

An easy to use Toolkit to measure compliance (ex. with PID Policy - 1st version) based on the results of Conceptual Model (definitions, relationships)

set of definitions for the concepts involved and the relationships between them
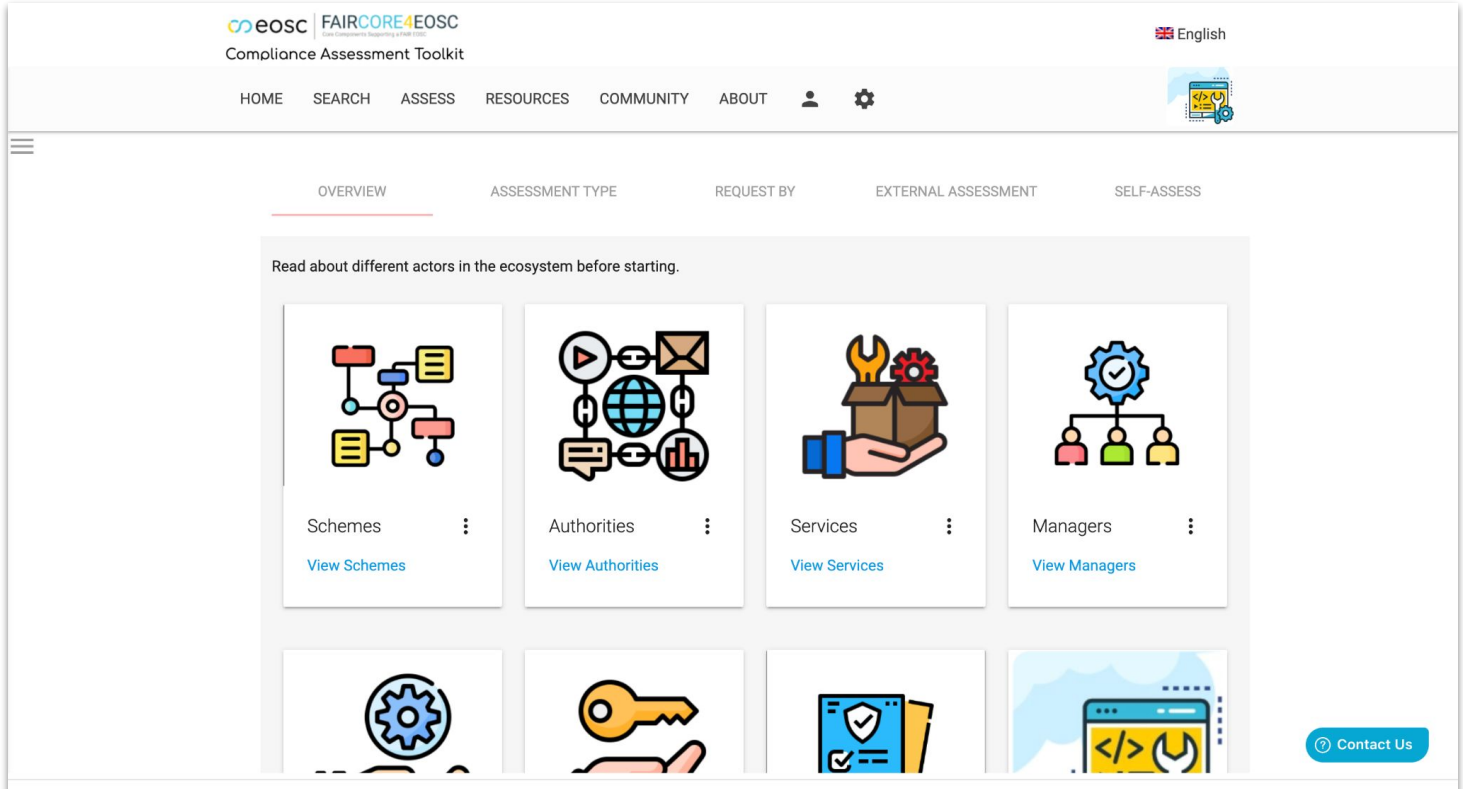
landscape of compliance assessment

CAT at a glance

The **Compliance Assessment Toolkit** will support the EOSC PID policy by providing:

- Vocabulary Services
- API Services
- User Interfaces

Compliance Assessment Toolkit for EOSC: a set of concepts, accessible via APIs, and supported by user interfaces via the APIs.

The Compliance Assessment Toolkit will support the EOSC PID policy with services to encode, record, and query compliance with the policy. To do so, a wide range of compliance requirements (TRUST, FAIR, PID Policy, Reproducibility, GDPR, Licences) have been evaluated as use cases for definition of a conceptual model.

The Fundamentals

Users: The user that is using the Service

Roles: The different types of Roles the user can have in the Service (Identified, Validated)

Actors: Different actors that perform specific actions on behalf of the Organization they belong to.

Validations: Request to be a specific type of actor on behalf of your Organization

Template of assessment: A way to create different types of assessments based on specific policies (using principles, criteria, tests) , on specific actors and on compinatioon.

Assessment : Assess and document the current state of compliance of your object based on rules extracted from the policy you want (ex. the PID Policy)

Subject : The subject that the User wants to access (service, infrastructure , url etc)

The Connections

Users: The user that is using the Service

Roles: The different types of Roles the user can have in the Service (Identified, Validated)

Actors: Different actors that perform specific actions on behalf of the Organization they belong to.

Validations: Request to be a specific type of actor on behalf of your Organization

Template of assessment: A way to create different types of assessments based on specific policies (using principles, criteria, tests) , on specific actors and on compination.

Assessment : Assess and document the current state of compliance of your object based on rules extracted from the policy you want (ex. the PID Policy)

Subject : The subject that the User wants to access (service, infrastructure , url etc)

Actors

- ● Different types of actors based on PID Policy
- ● A user can request different types actors

Requirement for a validation

Validations

- ● Everyone can log in (identified)
- ● Multiple validation requests
  - ○ different actors
  - ○ different organizations

Requirement for an assessment

Assessments

- ● Follows the assessment methodology (principles, criteria, tests)
- ● Json schema to support the relationships of the principles, criteria, tests
- ● Library of different types of tests
  - ○ binary, value
  - ○ working on automated tests (fetching results from external sources)
- ● Benchmarks, metrics supporting the calculation of required results.

The User Experience

A user logins via AAI

The User Experience

A user logins via AAI

automatically
gets the role

Identified

The User Experience

A user logins via AAI

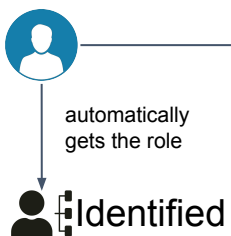automatically gets the role

Identified

Profile

id: c0f15711b0f26749734 003ca3c….194f5819@einf ra.grnet.gr
Type: Identified
Registered on: 2023-07-02T14:48:28.000 +03:00

The User Experience

A user logins via AAI

requests a validation

automatically gets the role

Identified

Profile

id: c0f15711b0f26749734003ca3c….194f5819@einfra.grnet.gr
Type: Identified
Registered on: 2023-07-02T14:48:28.000+03:00

The User Experience

A user logins via AAI

requests a validation

automatically gets the role

Identified

on behalf of an Organization

as a specific type of Actor

Profile

id: c0f15711b0f26749734
003ca3c….194f5819@einf
ra.grnet.gr
Type: Identified
Registered on:
2023-07-02T14:48:28.000
+03:00

The User Experience

A user logins via AAI

requests a validation

automatically gets the role

Identified

on behalf of an Organization

as a specific type of Actor

Profile

id:c0f15711b0f26749734
003ca3c….194f5819@einf
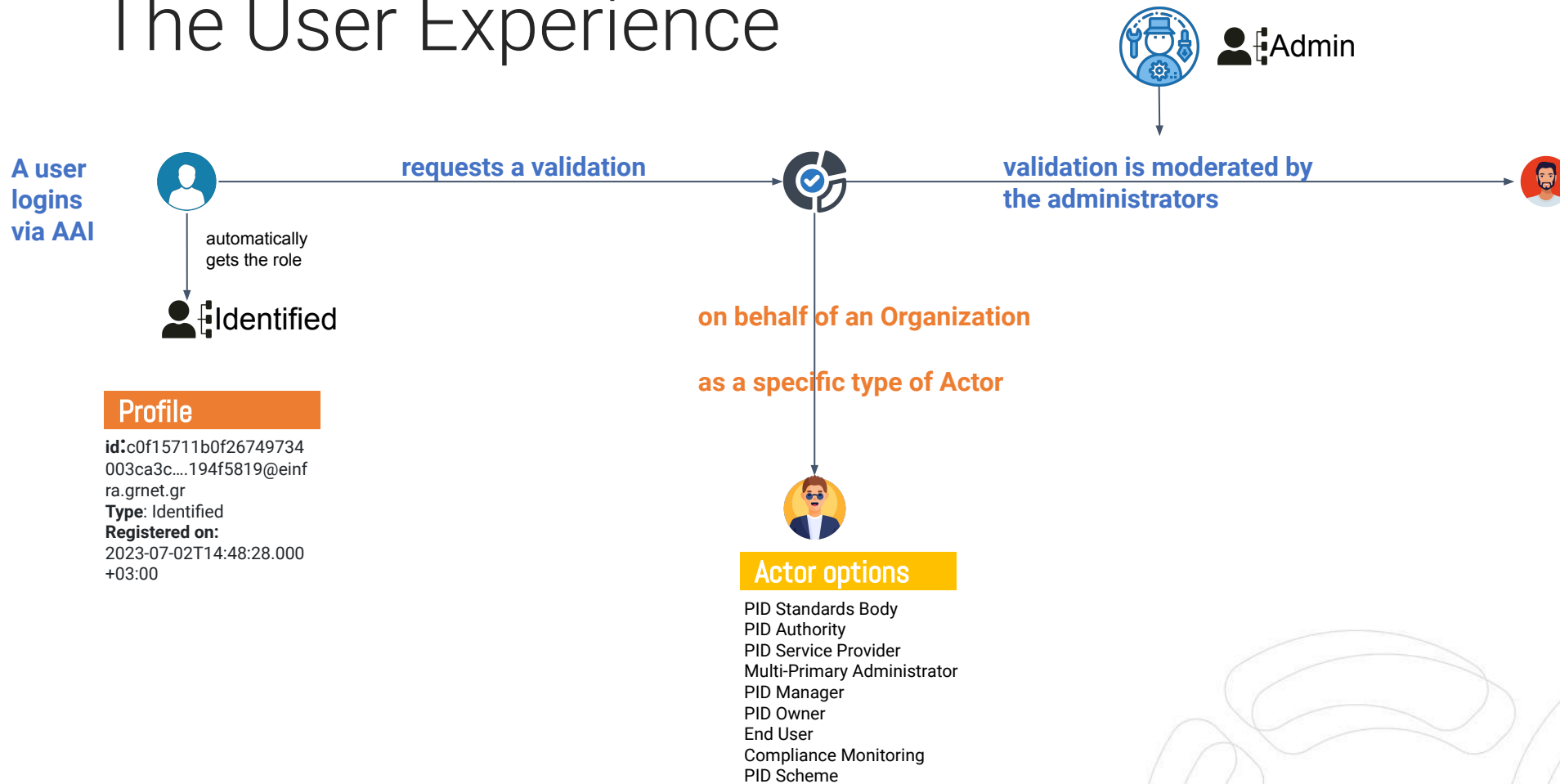ra.grnet.gr
Type: Identified
Registered on:
2023-07-02T14:48:28.000
+03:00

Actor options

PID Standards Body
PID Authority
PID Service Provider
Multi-Primary Administrator
PID Manager
PID Owner
End User
Compliance Monitoring
PID Scheme

The User Experience

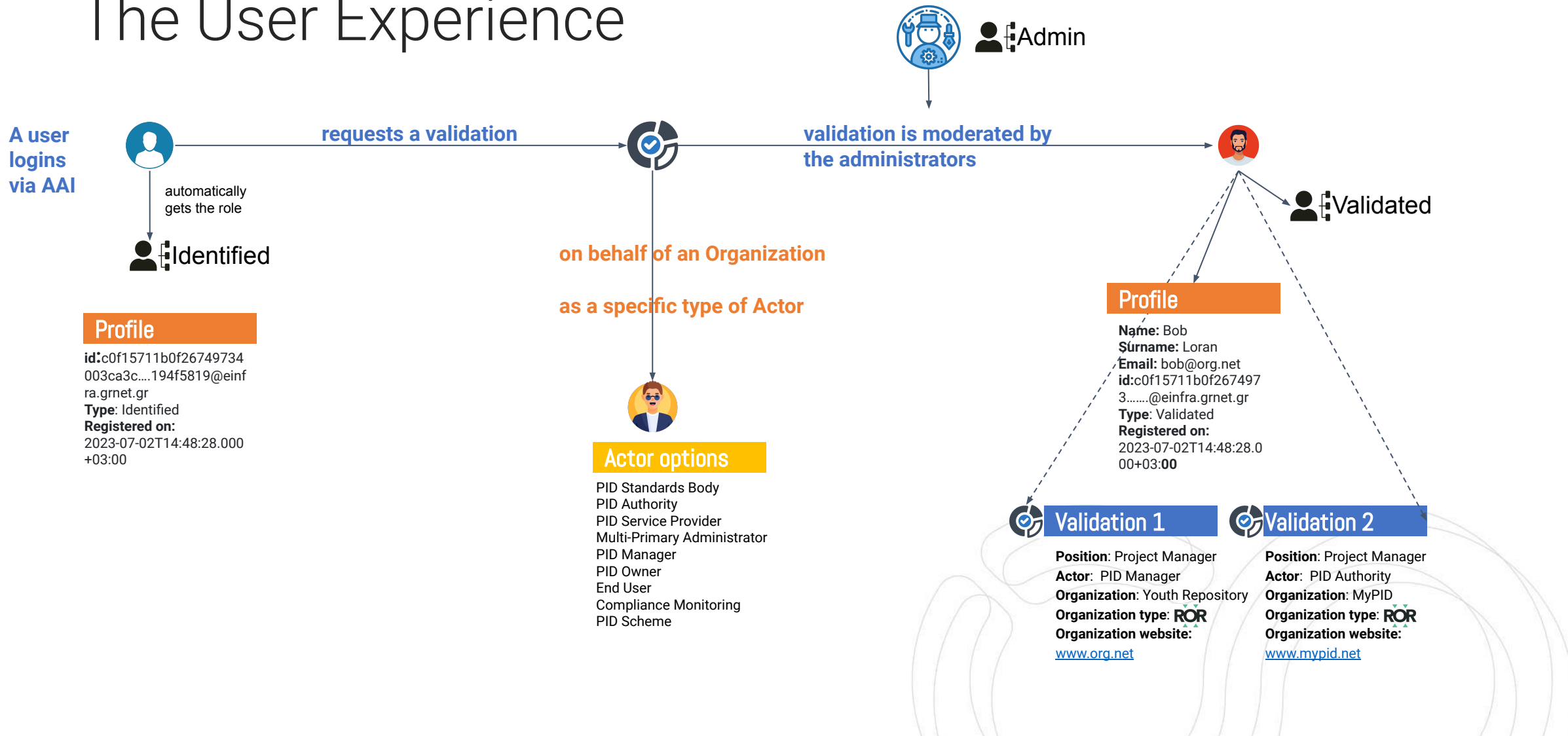**A user logins via AAI**

requests a validation

validation is moderated by the administrators

automatically gets the role

Identified

Profile

id: c0f15711b0f26749734 003ca3c....194f5819@einf ra.grnet.gr
Type: Identified
Registered on:
2023-07-02T14:48:28.000 +03:00

on behalf of an Organization

as a specific type of Actor

Actor options

PID Standards Body
PID Authority
PID Service Provider
Multi-Primary Administrator
PID Manager
PID Owner
End User
Compliance Monitoring
PID Scheme

34

The User Experience

Admin

A user logins via AAI

requests a validation

validation is moderated by the administrators

automatically gets the role

Identified

Validated

Profile

id:c0f15711b0f26749734 003ca3c....194f5819@einf ra.grnet.gr
Type: Identified
Registered on:
2023-07-02T14:48:28.000 +03:00

on behalf of an Organization

as a specific type of Actor

Profile

Name: Bob
Surname: Loran
Email: bob@org.net
id:c0f15711b0f267497 3.......@einfra.grnet.gr
Type: Validated
Registered on:
2023-07-02T14:48:28.0 00+03:**00**

Actor options

PID Standards Body
PID Authority
PID Service Provider
Multi-Primary Administrator
PID Manager
PID Owner
End User
Compliance Monitoring
PID Scheme

Validation 1

Position: Project Manager
Actor: PID Manager
Organization: Youth Repository
Organization type: ROR
Organization website:

www.org.net

Validation 2

Position: Project Manager
Actor: PID Authority
Organization: MyPID
Organization type: ROR
Organization website:

www.mypid.net

The User Experience / In Action

A user logins via AAI — automatically gets the role — **requests a validation** — **Admin**

Identified

validation is moderated by the administrators

profile

Account	id: c0f15711b0f26749734003ca3cbc30fbd1f6baffb8f3c315a771ee57194f5819@einfra.grnet.gr
	type: Identified
	registered on: 2024-01-23T13:44:08.000+02:00

Personal Details	**Name:**
	Surname:
	Email:
	Update Details

| Validation Requests | ⚠ You should update your personal details in order to be able to create validation requests |

Assesments

Subjects

create new validation request

ⓘ Organization Name (*)
Select...

ⓘ Organization Source (*)
ROR

ⓘ Organization Website (*)

ⓘ Organization Role (*)

ⓘ Actor (*)
Select Actor

User Details (*)

| Name: | Themis | Surname: | Zamani | Email: | themis@admin.grnet.gr |

Submit   Cancel

Personal Details

Name: Themis
Surname: Zamani
Email: themis@admin.grnet.gr

Update Details

START DEMO

The Assessment Experience

A user logins via AAI

Validated

Profile

Name: Bob
Surname: Loran
Email: bob@org.net
id:c0f15711b0f2674973.......@einfra.grnet.gr
Type: Validated
Registered on:
2023-07-02T14:48:28.000+03:**00**

Validation 1

Position: Project Manager
Actor: PID Manager
Organization: Youth Repository
Organization type: ROR
Organization website:
www.org.net

Validation 2

Position: Project Manager
Actor: PID Authority
Organization: MyPID
Organization type: ROR
Organization website:
www.mypid.net

The Assessment Experience

A user logins via AAI

manages his subjects

Validated

Profile

Name: Bob
Surname: Loran
Email: bob@org.net
id:c0f15711b0f267497
3.......@einfra.grnet.gr
Type: Validated
Registered on:
2023-07-02T14:48:28.0
00+03:**00**

Validation 1

Position: Project Manager
Actor: PID Manager
Organization: Youth Repository
Organization type: ROR
Organization website:
www.org.net

Validation 2

Position: Project Manager
Actor: PID Authority
Organization: MyPID
Organization type: ROR
Organization website:
www.mypid.net

The Assessment Experience

private public

A user logins via AAI

manages his subjects

creates an assessment

Validated

Profile

Name: Bob
Surname: Loran
Email: bob@org.net
id:c0f15711b0f267497 3.......@einfra.grnet.gr
Type: Validated
Registered on: 2023-07-02T14:48:28.0 00+03:**00**

Validation 1

Position: Project Manager
Actor: PID Manager
Organization: Youth Repository
Organization type: ROR
Organization website:
www.org.net

Validation 2

Position: Project Manager
Actor: PID Authority
Organization: MyPID
Organization type: ROR
Organization website:
www.mypid.net

The Assessment Experience

private
public

A user logins via AAI

manages his subjects

creates an assessment

Validated

As a specific actor (validations)

for a specific subject

Profile

Name: Bob
Surname: Loran
Email: bob@org.net
id:c0f15711b0f267497
3.......@einfra.grnet.gr
Type: Validated
Registered on:
2023-07-02T14:48:28.0
00+03:**00**

Validation 1

Position: Project Manager
Actor: PID Manager
Organization: Youth Repository
Organization type: ROR
Organization website:
www.org.net

Validation 2

Position: Project Manager
Actor: PID Authority
Organization: MyPID
Organization type: ROR
Organization website:
www.mypid.net

The Assessment Experience

A user logins via AAI

manages his subjects

creates an assessment

get the results

private
public

As a specific actor (validations)

for a specific subject

Validated

Profile

Name: Bob
Surname: Loran
Email: bob@org.net
id:c0f15711b0f267497
3........@einfra.grnet.gr
Type: Validated
Registered on:
2023-07-02T14:48:28.0
00+03:**00**

Validation 1

Position: Project Manager
Actor: PID Manager
Organization: Youth Repository
Organization type: ROR
Organization website:
www.org.net

Validation 2

Position: Project Manager
Actor: PID Authority
Organization: MyPID
Organization type: ROR
Organization website:
www.mypid.net

The Assessment Experience / In Action

A user logins via AAI

automatically gets the role

manages his subjects

creates an assessment

private public

As a specific actor (validations)

for a specific subject

Validation Request id: 1

+ Create New

Requestor	User id: c0f1571fb0f26749734003ca3cbc30fbd1f6baffb8f3c315a771ee57194f5819@einfra.grnet.gr User name: Themis User surname: Zamani User email: themis@admin.grnet.gr
Organisation	Id: ror.org/05tcasm11 Name: National Infrastructures for Research and Technology - GRNET S.A Website: https://www.grnet.gr
Roles	User role in organisation: Project Manager User requests as Actor with: PID Service Provider
Status	Created on: 2024-01-25T13:34:25.000+02:00 ✓ APPROVED Approved on: 2024-01-25T13:37:17.000+02:00 Approved by: 59b1a319b554e8be7f998089cc6863db635c81a09d4d7645a4ece50f2e9012f3@einfra.grnet.gr

⊕ **Create new subject**   ✕

ⓘ Subject ID (*)   A unique identifier for the current subject

ⓘ Subject Name (*)   The name of the subject of the assessment as identified above

ⓘ Subject Type (*)   The type of object for which the assessment will be completed

Cancel   Create

The Assessment Experience / In Action

schema validated

based on templates

principles

criteria

metrics

tests

- binary
- value
- automated tests
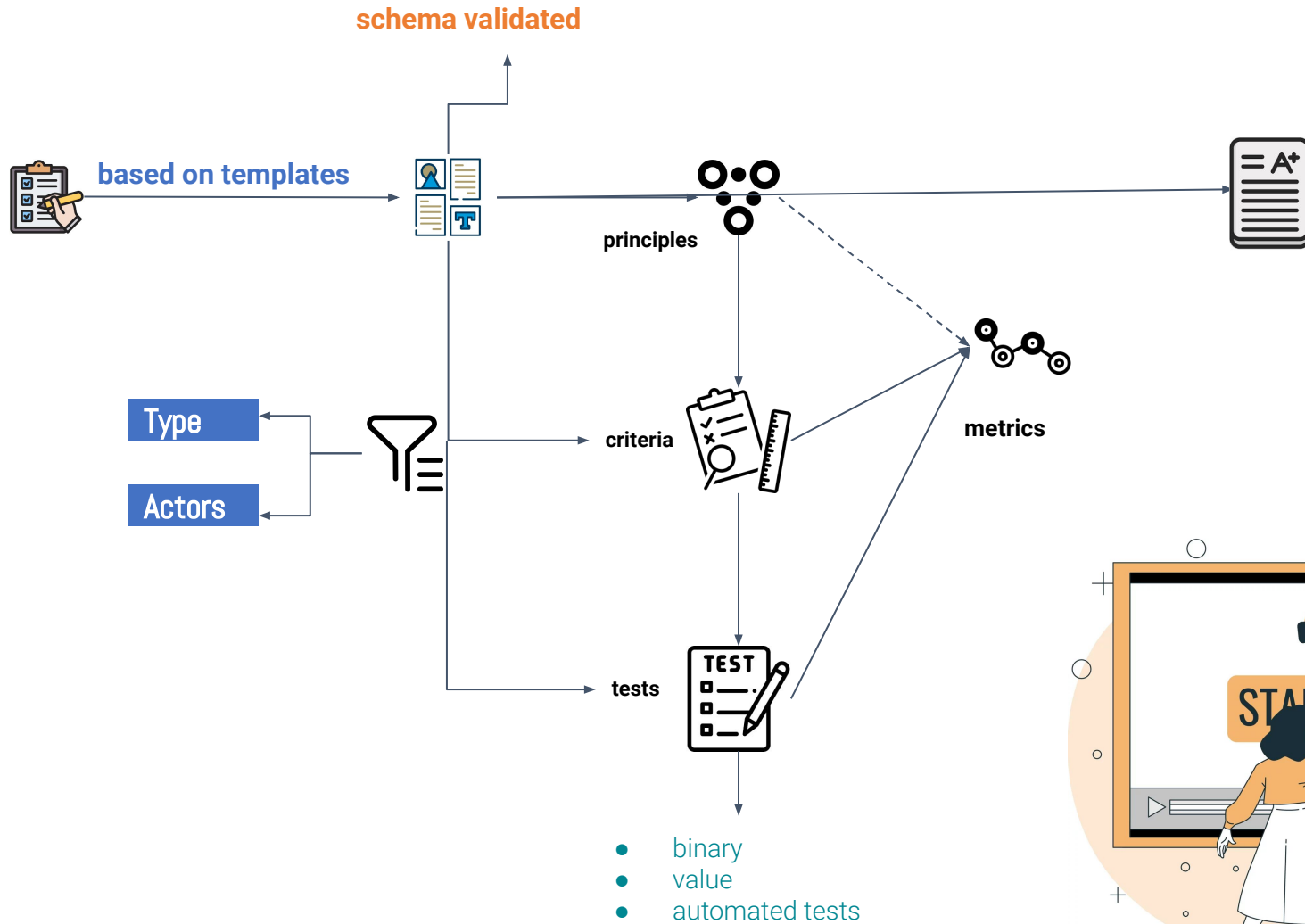
Type — PID Policy

Actors — PID Owner

EXAMPLE

P1 - Application:
C4 - Measurement

Principle P1: Application
PID application depends on unambiguous ownership, proper maintenance, and unambiguous identification of the entity being referenced.

Criterion C4: Measurement Should   Metric: UNKNOWN
The PID owner SHOULD maintain PID attributes.

Test T4: Maintenance

Question: Do you regularly maintain the metadata for your object?

Answer: ○ Yes ○ No

Evidence:
Please enter a list of URLs providing evidence of your claim:

se answer the question above

Create   Cancel

START DEMO

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The Assessment Experience / In Action

create assessment

Here you will see the list of validated actors
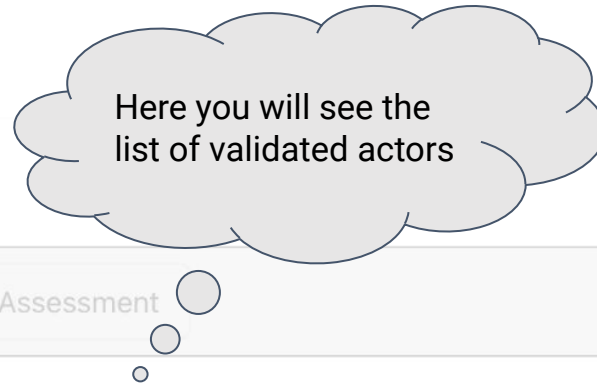
| Step 1. Actor | Step 2. Submission | Step 3. Assessment |

As a first step you need to select one of your validated actor roles in the following organisations:

○ PID Service Provider at National Infrastructures for Research and Technology – GRNET S.A

← Prev   Next →   Create   Close

The Assessment Experience / In Action

The Assessment Experience / In Action

The Assessment Experience / In Action

The Core: Assessment In Action / Guidance

edit assessment   id: 79bad374-7dc3-485c-a81b-3dd0a66cf9a2

Step 1. Actor   Step 2. Submission   **Step 3. Assessment**

Compliance: UNKNOWN   Ranking: Mandatory: 0 / 5   Optional: 0 / 7

C5 - Update Functionality
The PID manager MUST provide the functionality required to maintain PID attributes.

C6 - Ownership Transfer *required*
The PID manager SHOULD provide policies and contractual arrangements for transfer of ownership should the owner no longer be able to assume responsibilities in compliance with the policy.

C7 - Resolution Integrity
The PID Manager MUST maintain the integrity of the relationship between entities and their PIDs, in conformance to a PID Scheme defined by a PID Authority.

C11 - Versioning *required*
PID services and PID Managers SHOULD have clear versioning policies.

C14 - Resolution Authenticity or Efficiency
PID Manager MUST ensure that the entity remains linked to the PID. In case that the entity being identified is deleted or ceases to exist, tombstone information needs to be included in the PID attribute set.

C34 - Persistence Mean *required*

C6: Ownership Transfer   Required
The PID manager SHOULD provide policies and contractual arrangements for transfer of ownership should the owner no longer be able to assume responsibilities in compliance with the policy.

part of principle P1: Application

● Progress

T6   Ownership Transfer ?

Are the specifics of the ownership transfer provisions publicly available through a contract or procedure?

○ Yes   ○ No

Evidence:
URL: Please enter and add a valid url to support your claim   Add

PID application depends on unambiguous ownership, proper maintenance, and unambiguous identification of the entity being referenced.

...es offered, encrypted using https?

Guidance G6   ✕

Public evidence is available of contractual or procedural provisions for ownership transfer. This will be a self-assessment for the foreseeable future.

The Core: Assessment In Action

Technologies Used

UI

Request

Response

API

AUTH
SERVER

React JS

QUARKUS

KEYCLOAK

FC4E CAT

Learn how FC4E CAT Tookit works

Read the docs   Explore the API

https://fc4e-cat.github.io/fc4e-cat-doc/

https://cat.argo.grnet.gr/

https://api.cat.argo.grnet.gr/

Test and send us your feedback

Test the service

Send Feedback

https://cat.argo.grnet.gr

https://forms.gle/gmCr1xhv7VbK4GAF9

New Features / Ideas - Next Steps

Next Steps

- Give the ability to users to create their own Policy and associated templates
  - Support templates of policies
  - Either copy an existing one
  - Create a new one based on a library of principles, metrics, tests
- More Guidance
  - General Guidance
  - Help topics menu
- Use of a Vocabulary service
- Support a Providers Registry
- Monitor the PID ecosystem → coming next :)

Compliance Assessment Toolkit

Automated Monitoring of the PID Ecosystem

Automated Monitoring: Link Rot Checker Specification

Term / Abbreviation	Description
Reference rot	A reference that is experiencing either link rot or content drift.
Link rot	A resource identified by a URI that has ceased to exist and hence a URI reference to that resource will no longer provide access to referenced content.
Content drift	A resource identified by a URI of which the content has changed to such an extent that it ceases to be representative of the content that was originally referenced.

Eve, M. P., (2024) "Digital Scholarly Journals Are Poorly Preserved: A Study of 7 Million Articles", Journal of Librarianship and Scholarly Communication 12(1). doi: https://doi.org/10.31274/jlsc.16288

Klein M, Van de Sompel H, Sanderson R, Shankar H, Balakireva L, Zhou K, et al. (2014) Scholarly Context Not Found: One in Five Articles Suffers from Reference Rot. PLoS ONE 9(12): e115253. https://doi.org/10.1371/journal.pone.0115253

FAIRCORE4EOSC
Core Components Supporting a FAIR EOSC

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