Persistent Identifiers Supported by Service Providers: A Case Study of CRIS Systems – the Polish Platform of Medical Research

December 8 @ **10:00 am** – **11:30 am** UTC+1

Risks and Trust in pursuit of a well-functioning PID infrastructure for research

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Overview

1. Background for the study

2. Study's design and some (early) results

1 Background for the study

The study

Commissioned by: Knowledge Exchange (KE)

https://www.knowledge-exchange.info/

- Six European partner organisations tasked with developing infrastructure and services to enable the use of digital technologies to improve higher education and research: **CSC** in Finland, **CNRS** in France, **DeiC** in Denmark, **DFG** in Germany, **Jisc** in the UK and **SURF** in the Netherlands.

- Focus: Support the development of digital infrastructures to enable open science.

The study

Focus

https://www.knowledge-exchange.info/news/articles/24-06-2021

- An investigation on how to better understand what is needed to build and exploit a well-functioning PID infrastructure for research.
- To identify what could be the best possible strategic and operational paths to achieve a well-functioning PID infrastructure by …
- … considering well-known and consolidated sorts of PIDS (for publications, data, software, persons, organisations, archived objects) but also gradually emerging e-infrastructure (e.g.research equipment, facilities, conferences, medical or environmental science samples).

The consultants

- **Pablo de Castro**: Open Access Advocacy Librarian at the University of Strathclyde in Glasgow since Jan 2017. Technical Secretary of the Dutch non-profit association euroCRIS since Jan 2018. Former OpenAIRE project officer. Member of the EOSC Association Task Force for PID Policy and Implementation.
- **Dr. Ulrich Herb** (project lead): Open Access advocate and head of the Publication and Research Support Department at Saarland University, independent consultant.
- **Laura Rothfritz**: Research assistant and PhD candidate at the Berlin School of Library and Information Science at Humboldt University Berlin.
- **Dr. Joachim Schöpfel:** Professor for Information Science at the University of Lille and independent consultant.

2 Study’s design and some (early) results

Study outline

1. Data collection
   1.1. Literature study on Risk & Trust on technical infrastructures, especially PIDs
   1.2. Interviews with experts in the domain
2. Analysis and summary use cases
3. Formulation of recommendations
4. Summary report

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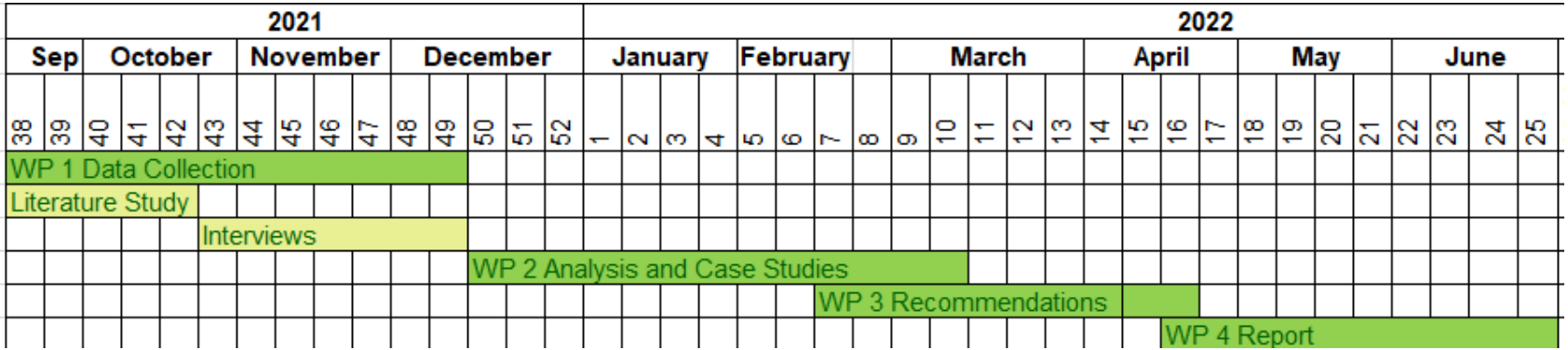
- Study outline

Project timeline



Study outline

Literature Study: Some results

A PID infrastructure consists of

- Service providers
- Repositories/CRISs
- Curation systems
- Aggregators
- Indexes
- Metadata
- Standards
- …and PEOPLE

A PID is only as good as the **services** built around it, and PID services are only as good as the **social adoption** and **sustainability** they can achieve → **technical AND social infrastructure**

Cousjin et al., 2021

Trustworthy PID Systems

- Maintained by **dedicated and reliable team**
- Based on a **transparent and sustainable business model**
- Provided by a **non-profit organization**
- Subject of **regular quality assessments** by external parties
- Governed by **international boards**
- Based upon **open standards**
- Based on a **redundant and secure architecture**
- Support a **huge address space**
- Support and **openly documented API** optimally supporting accepted data models

RDA, Data Fabric IG, 2018

Trustworthy PID Service providers

- PID registration and resolution has **no costs** to end users
- PID Services should have **Technology Readiness Level 8 (system complete and qualified) or 9 (actual system proven in operational environment)**
- **24/7 availability** is ensured, **responsibilities for service maintenance** are documented clearly
- There is a clear **sustainability and succession plan with an exit strategy** in place
- PID Service providers and Authorities are **regularly certified based on agreed standards**
- **An accessible API** is in place for the development of a a generic, global resolution system across all systems and providers

EOSC PID policy, 2020

Connection to [Knowledge Exchange] Open Scholarship Framework (OSF)

Arena	Possible event
Political	PID owners stop maintaining metadata, loss of organizational government
Economic	Financial sustainability is no longer given, financial support is lacking
Social	Key players in the PID system change or end their involvement, lack of community uptake
Technological	Technology the PID relies on is changed for whatever reason

Expert Interviews

- Selection of experts based on **6 generic user roles for PIDs**
  - PID Authority (e.g. DOI Foundation)
  - PID Service Provider (e.g. DataCite, CrossRef)
  - PID Manager (e.g. stakeholders operating repositories & CRIS systems, publishers/database providers)
  - PID Owner (e.g. Repository/CRIS managers)
  - PID Users (e.g. researcher, funders, (reference management) software)

… and by considering the KE partner countries' representation in the sample.

Study outline

Interviews with experts in the domain

- Planned: 15 interviews (roughly 1-hr long)
- Two phases: 45-min semi-structured interview + 15-min open discussion.
- Three interviews already conducted, five additional ones in the pipeline (as of Dec 8th, 2021)

Research infrastructures: metadata model & data capturing in FRIS

euroCRIS webinar, Nov 24th, 2021

FRIS Research portal

DEPARTMENT OF ECONOMY SCIENCE & INNOVATION

ecoom

UHASSELT
KNOWLEDGE IN ACTION

FRIS: Metadata model for research infrastructure

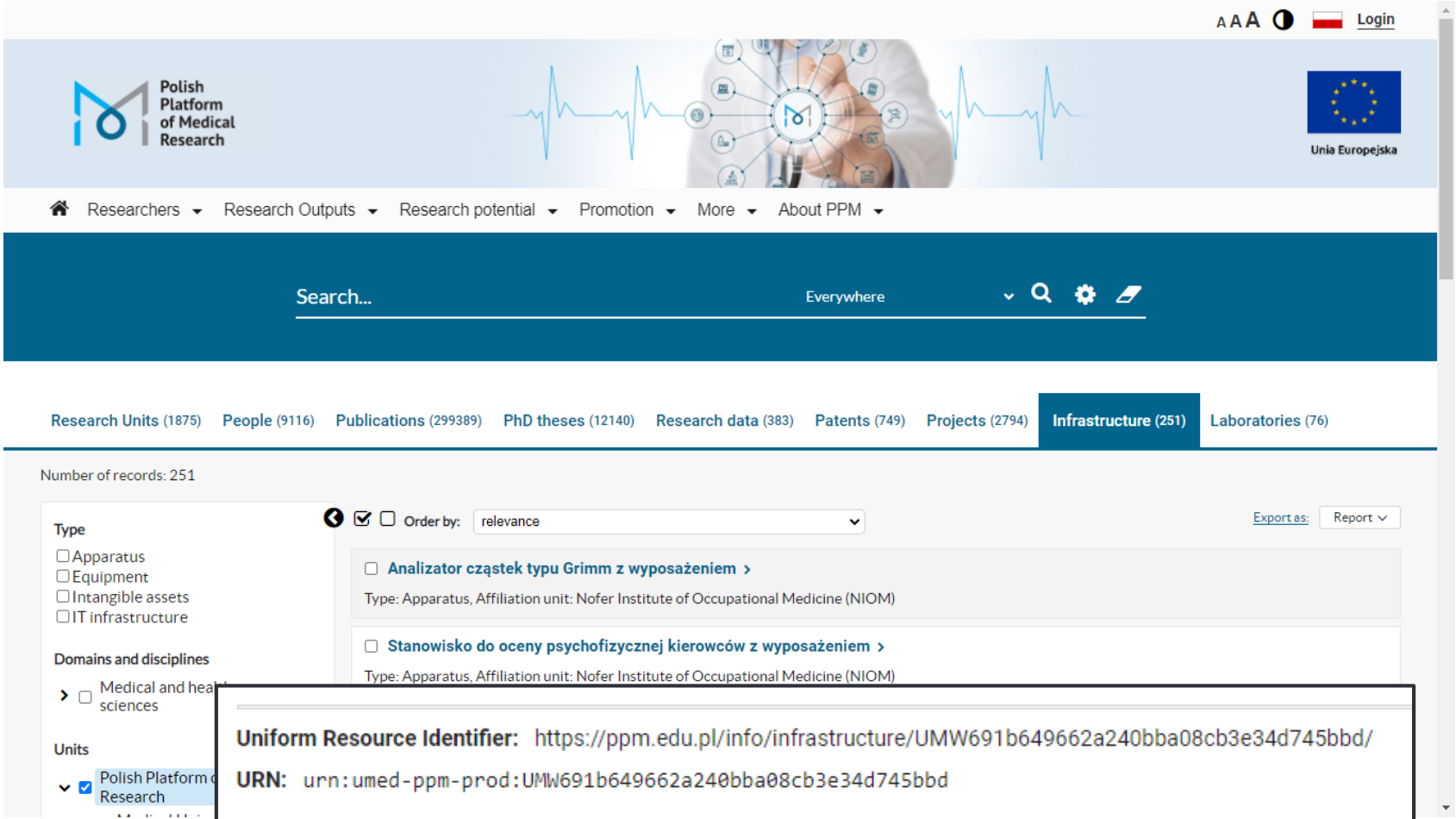
- **Characteristics**
  → 25 metadata fields

Links to other research objects

- Identifier
- Federated identifier
- Name
- Acronym
- Description
- Keywords
- Type
- Location type
- Accessibility
- User modalities
- Starting date
- End date
- Location(s)
- Contact
- Website

- Technology classification (Fraunhofer-35)
- Research disciplines (FRDS)
- Data provider is consortium coordinator?
- Consortium coordinator
- Organisation(s) of consortium partners of infrastructure project
- Affiliations of consortium partners of the infrastructure project that provide data to FRIS
- **Link to funding project(s)**
- **Link to projects utilizing infrastructure**
- **Link to publications utilizing infrastructure**
- **Link to other infrastructure**

http://hdl.handle.net/11366/1867



https://ppm.edu.pl/globalResultList.seam?r=infrastructure&tab=INFRASTRUCTURE&lang=en

Thanks for your attention

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