



20 March 2024 – Universität Bielefeld

## Funder 22,357 Dataset 28,612 7,524,645 11.657 25,263 Organization 3,872,906 Publication 14.043,135 3.847,926 Person 8,718,993

# Pro & Contra für PID von FIS-Diensten in Registraturen

http://hdl.handle.net/11366/2522

#### Pablo de Castro

euroCRIS Secretary

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Figure: PID graph as described by FREYA in Aug 2020 - with a strong focus on research outputs

Sponsors

https://cris2024.eurocris.org/



Sponsors

Contact

https://cris2024.eurocris.org/

## Piloting the use of RAiD in research.fi

Tommi Suominen<sup>1</sup>, Laura Himanen<sup>1</sup>, Walter Rydman<sup>1</sup>, Sonja Sipponen<sup>1</sup> and Clifford Tatum<sup>2</sup>

<sup>1</sup>CSC - IT Center for Science, Espoo, Finland <sup>2</sup> SURF, Utrecht, The Netherlands



## International collaboration

ORCID myths and misconceptions, and the search for truth in the context of current research information systems (CRIS)

Francisco Alsina and Christian Gumpenberger

## Piloting the use of PIDGRAPH data in research.fi

Tommi Suominen<sup>1</sup>, Laura Himanen<sup>1</sup>, Lauri Hellsten<sup>1</sup> and Mike Bennett<sup>2</sup>

<sup>1</sup>CSC - IT Center for Science, Espoo, Finland

<sup>2</sup> DataCite, Hannover, Germany





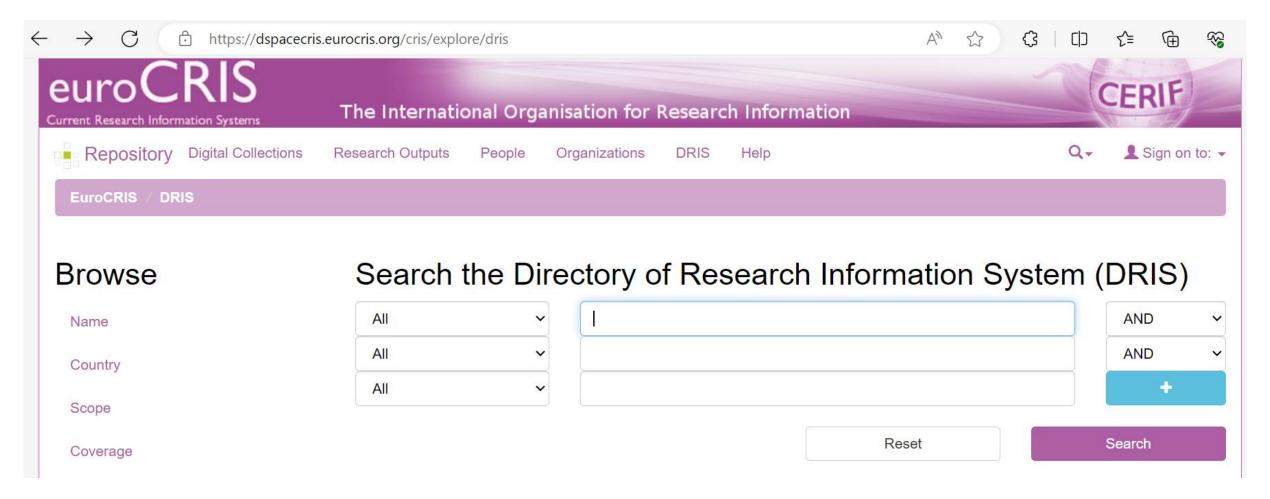
# PID Network Germany

community building and national roadmap development across ten PID use cases

Andreas Czerniak 0000-0003-3883-4169 Jochen Schirrwagen 0000-0002-0458-1004

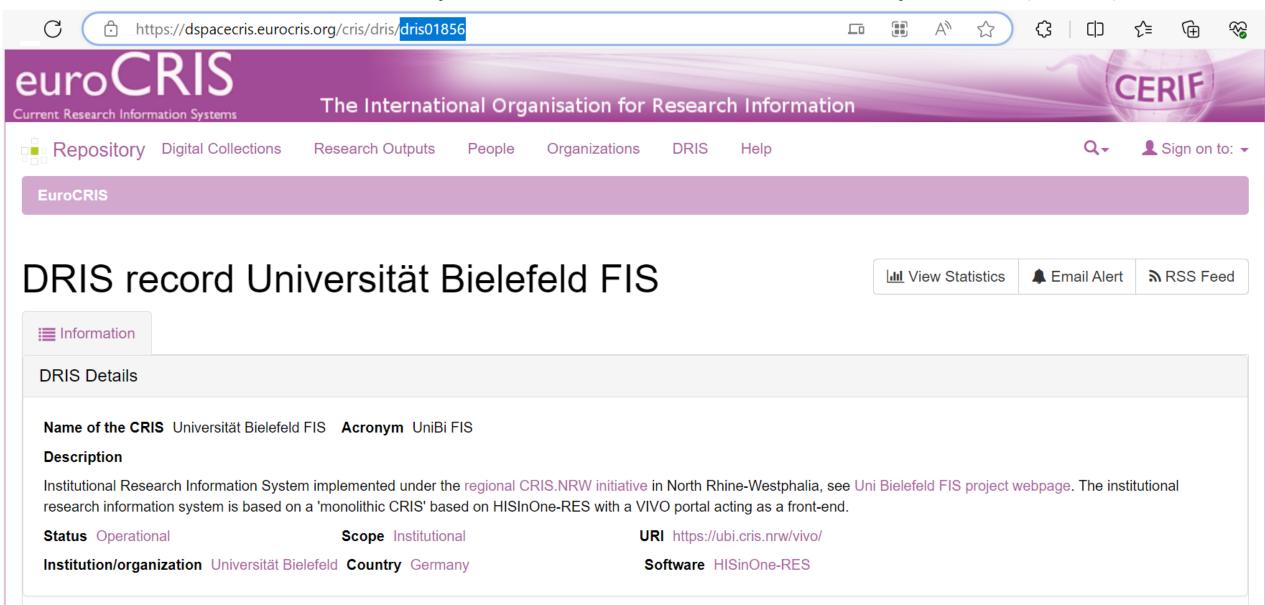
euroCRIS Spring Membership Meeting 2023, May 30 - June 1 2023, Brussels, Belgium

## The euroCRIS Directory of Research Information Systems (DRIS)

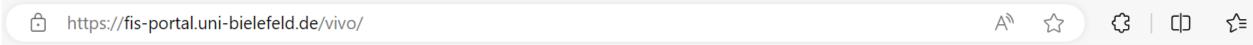


- > 1,400 entries as of today
- Metadata for system description provided by organisation hosting the CRIS

## The euroCRIS Directory of Research Information Systems (DRIS)



## The euroCRIS Directory of Research Information Systems (DRIS)





#### On our own behalf

The research portal is currently under construction. At the moment, it only depicts a section of the research activities carried out at Bielefeld University.

Status OperationalScope InstitutionalURI https://ubi.cris.nrw/vivo/Institution/organization Universität Bielefeld Country GermanySoftware HISinOne-RES

## One step back: The "Building the Plane" KE report – and associated case studies



- "... to identify, through investigation, analysis and recommendations, the best possible strategic and operational paths to achieve a well-functioning PID infra for KE member states and beyond"
- "... to identify the main risks when pursuing a well-functioning PID infrastructure for research, and to better understand the most important elements of trust in creating said infrastructure"

## The "Building the Plane" report – and associated case studies

## Report:

Building the plane as we fly it: the promise of Persistent Identifiers, <a href="https://zenodo.org/record/7258286">https://zenodo.org/record/7258286</a>

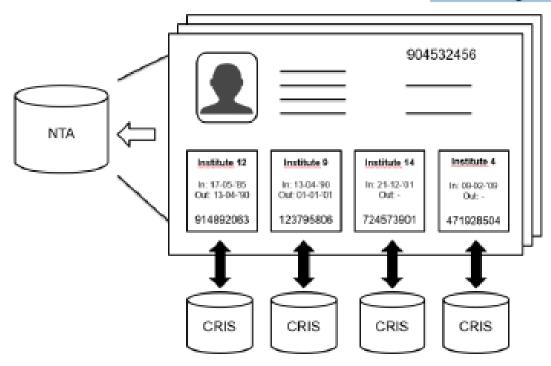
### **Case studies:**

- Adoption of the DAI in the Netherlands and subsequent superseding by ORCID/ISNI, <a href="https://zenodo.org/record/7327505">https://zenodo.org/record/7327505</a>
- The gradual implementation of organisational identifiers (OrgIDs), <a href="https://zenodo.org/record/7327535">https://zenodo.org/record/7327535</a>
- PIDs for research instruments and facilities: an emerging PID domain in need of coordination, <a href="https://zenodo.org/record/7330372">https://zenodo.org/record/7330372</a>
- IGSN building and expanding a community-driven PID system, <a href="https://zenodo.org/record/7330498">https://zenodo.org/record/7330498</a>
- RePEc Author Service: An established community-driven PID, <a href="https://zenodo.org/record/7330516">https://zenodo.org/record/7330516</a>
- Failed PIDs and unreliable PID implementations, <a href="https://zenodo.org/record/7330527">https://zenodo.org/record/7330527</a>
- The role of research funders in the consolidation of the PID landscape, <a href="https://zenodo.org/record/7258210">https://zenodo.org/record/7258210</a>

# CRIS – and specifically national/regional CRIS – uniquely placed to adopt/implement PIDs at a national level

• 'Historical' case study: Digital Author Identifier (DAI) in the Netherlands

De Digital Author Identifier (DAI) is het unieke nummer voor Nederlandse wetenschappelijke auteurs. Dit nummer is in 2005 als onderdeel van het SURF DARE programma ontwikkeld en sindsdien in gebruik bij alle Nederlandse universiteiten en een aantal onderzoeksinstituten.



Figuur 1: Visualisatie van NTA record met onderzoeksblokken van verschillende instellingen.

This potential trust-related issue was successfully addressed via the direct involvement of institutions – mainly via their CRIS administrators – in the process for issuing author identifiers of one sort or another. The original workflow for minting DAIs involved the coupling between the institutional METIS CRIS and the Dutch Thesaurus NTA as shown in the figure on the next page. This was a manual process carried out by each METIS CRIS administrator. Multiple or successive researcher's affiliations with various Dutch institutions could thus overlap into a single DAI that would receive input from different CRIS systems.

"Nota toekomst Nederlandse infrastructuur voor auteurs identifiers", https://docplayer.nl/8892670-Nota-toekomst-nederlandse-infrastructuur-voor-auteursidentifiers.html

## CRIS – and specifically national/regional CRIS – uniquely placed to adopt/implement PIDs at a national level

OrgIDs being centrally implemented by the NVA CRIS in Norway (formerly CRIStin) by merging a number of authority data sources (incl ROR)

The Brønnøysund Register Centre

Language (11)

Search Q

The content is not available in English.

Forsiden

<u>Produkter og tjenester</u> | **Nøkkelopplysninger fra Enhetsregisteret** 

## Nøkkelopplysninger fra Enhetsregisteret

Organisasjonsnummer: 919 303 808

Navn/foretaksnavn: SINTEF AS

Aksjeselskap Organisasjonsform:

Forretningsadresse: Strindvegen 4

7034 TRONDHEIM

Kommune: TRONDHEIM

Postadresse: Postboks 4760 Torgarden

7465 TRONDHEIM

# CRIS – and specifically national/regional CRIS – uniquely placed to adopt/implement PIDs at a national level

 Funding registry within PT-CRIS (will eventually lead to grantIDs)



Procedia Computer Science

Volume 211, 2022, Pages 74-82



Part of special issue

15th International Conference on Current Research Information Systems

Edited by Miguel-Angel Sicilia, Pablo De-Castro, Sadia Vancauwenbergh, Ed Simons, Orel Ognjen

# Developing a national science & technology funding registry in Portugal

Cátia Laranjeira 3 🖂 , Joana Nabais 3, Daniel Gomes 4, Pedro Lopes 4, João Mendes Moreira 4

#### **Abstract**

Funding information is one of the pillars of the research information ecosystem. Despite this, it is still very challenging to associate scientific outputs to all the entities that financially support a project and all the stakeholders involved. To tackle such limitation, PTCRIS-a national integrated research information management ecosystem-developed a new infrastructure to support the management of funding attributed to the scientific triad in the Portuguese scientific ecosystem: organizations, people and projects. The SciPROJ database is the new national database that aggregates funding records (national and international) that support science and technology activities carried out in Portugal.

# CRIS – and specifically national/regional CRIS – uniquely placed to adopt/implement PIDs at a national level

FRIS already collecting info on research instruments and facilities in Flanders

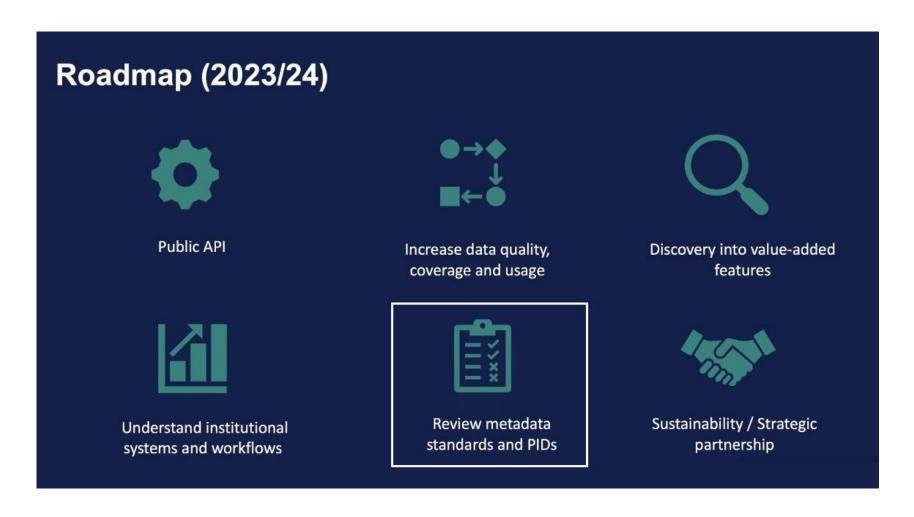
# FRIS: Metadata model for research infrastructure

- Characteristics
  - → 25 metadata fields
- 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

# A two-stage PID implementation process\*?

- 1. Data collection based on internal IDs (these will often be persistent but not always resolvable)
- 2. Adoption of 'international' PIDs once the standard is mature



<sup>\*</sup> Not necessarily via CRIS, it may be any database

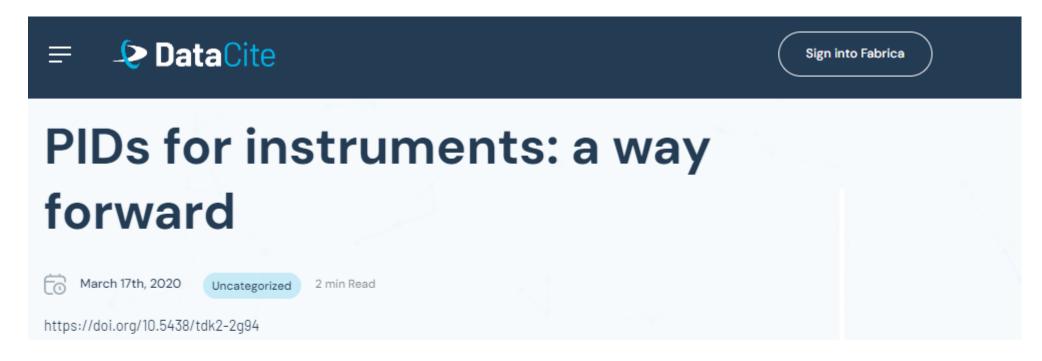
https://equipment.data.ac.uk/

## Good – but how long does it take for a 'new' PID to consolidate?

- 1. Data collection based on internal IDs (these will often be persistent but not always resolvable)
- 2. Adoption of 'international' PIDs once the standard is mature

	Mapping current PID-related activities in the EOSC context ☆ ☜ ⊘ File Edit View Insert Format Data Tools Extensions Help				
1	Short name	Long name	Official page	Maturity	
30	ORCID	Open Researcher and Contributor ID	https://orcid.org/	High	
31	PIC	(EC) partner identity code	https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/faq/1055		
32	PIDINST	Identifier for instruments	https://rda-pidinst.readthedocs.io/en/latest/	Low	
33	PMID	PubMed ID	https://www.ncbi.nlm.nih.gov/pmc/pmctopmid/		
34	PURL	Persistent Uniform Resource Locator	https://archive.org/services/purl/	High	
35	QID	Wikidata identifier	https://www.wikidata.org/wiki/Wikidata:Identifiers		
36	RAID	Persistent IDentifier for research projects	https://www.raid.org.au/		
37	Ringgold	Unique numerical identifier applied to organization	https://www.ringgold.com/		
38	ROR	Research Organization Registry	https://ror.org/	High	
39	RRID	Research Resource Identifier	https://scicrunch.org/resources		
40	ScopusAuthorID	Scopus Author ID	https://service.elsevier.com/app/answers/detail/a_id/11212/supporthub/scopus/	?	
41	SWHID	SoftWare Heritage persistent IDentifiers	https://docs.softwareheritage.org/devel/swh-model/persistent-identifiers.html		

## Good – but how long does it take for a 'new' PID to consolidate?



As a community-driven organization, we continue to focus and explore use cases with our members. The persistent identification and citation of scientific instruments is a particular use case that continues to gain momentum across community stakeholders. The capacity to uniquely identify an instrument is critical for the community to gather contextual information and interpret the related data accordingly. As such, we are interested in continuing the conversation on how we can better serve this use case.

We have been working to understand specific use cases in more detail and ensure that our services are aligned to support these. The RDA Persistent Identification for Instruments WG reached the consensus that an initial DOI for each instrument would work well. If, however, the instrument should receive a new identifier every time it is overhauled or calibrated or deployed, then a second more flexible system (using the initial DOI of the instrument as a connecting identifier) would be useful. The group released the current draft for the data accordingly. As such, we are interested in continuing the conversation on how we can better serve this use case.



**Matt Buys** 

# The (Currently) Fragmented PID Landscape

## **Competing Technical Solutions**

 OrgIDs: ROR vs Ringgold, record maintenance and the issue of multiple-level Org IDs



Acquisition Reflects CCC's Ongoing Commitment to Promoting Interoperability, Addressing Market Friction, and Collaborating with Stakeholders



### Use the registry

The Research Organization Registry (ROR) includes IDs and metadata for more than 102,000 organizations and counting.

Registry data is CC0 and openly available via a search interface, REST API, and data dump. Registry updates are curated through a community process and released on a rolling basis.



# The (Currently) Fragmented PID Landscape

## identifikátory.cz

Persistent Identifiers

Persistent Identifiers V Services V About us News

Home / ORCID / ORCID will no longer support the RINGGOLD ID

## ORCID will no longer support the RINGGOLD ID

ORCID / By Hana Janečková / 26. June 2023

Starting from 1 August 2023, the ORCID registry will no longer receive updates related to the unique RINGGOLD ID organization identifiers.

RINGGOLD IDs created after 1 August 2023 will no longer be processed by ORCID. The list of RINGGOLD ID identifiers already used by the ORCID registry will be maintained for the foreseeable future. However, as it will no longer be updated, the data will slowly become outdated.

Organisations using ORCID services are advised to:

- · use the ROR organisation identifier
- convert existing organisation metadata into ROR where possible



# The (Currently) Fragmented PID Landscape

## 'Community': an ambiguous concept

- PIDs and services associated with them need to be perceived as valuable and be in turn promoted by "the community"
  - 2. Crossref grant IDs minted by research funders

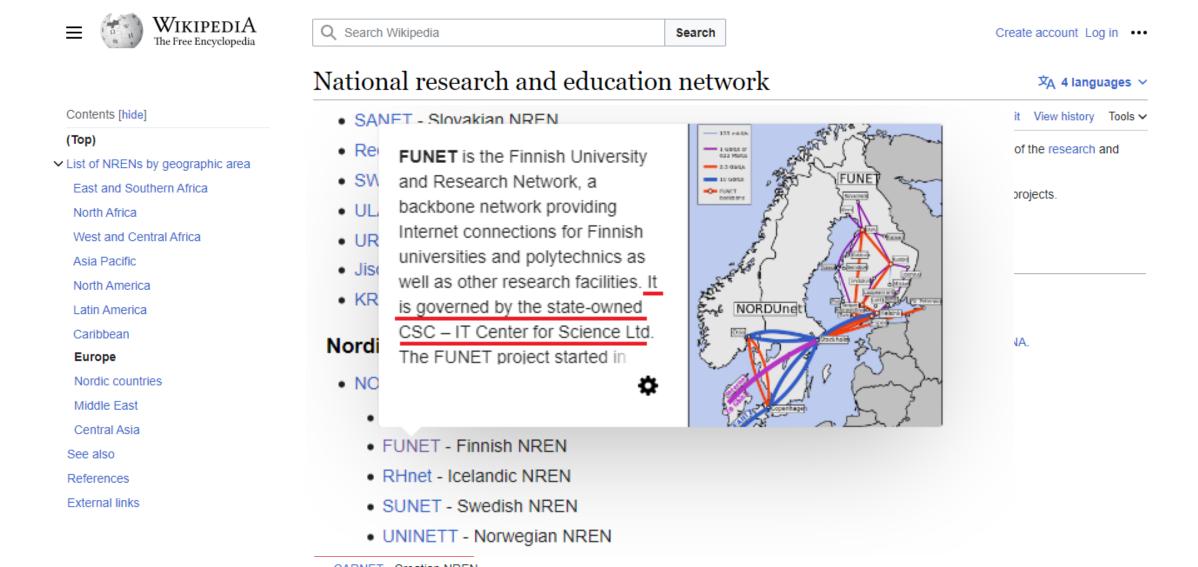
Stakeholder	Role	
Crossref	PID service provider: Crossref assigns a stack of DOIs (via a funder ID praefix) to research funders and guarantees PID persistence and the correct resolving*	
Research funder	PID manager: funders join the Crossref funder advisory group and gather the expertise to start minting grant IDs for their funded projects**	
HEI	PID user: institutions store the grant IDs in the metadata set for funded projects they keep in their CRIS systems*** Grant IDs are included as a part of the RAiDs HEIs mint***	
Researchers	PID user: prompted by their funders and HEIs, researchers include the grant IDs in the acknowledgements section of their manuscripts***	
Publisher	PID user: publishers allow these grant IDs to be provided on the manuscript submission systems and include them in the metadata set exported to Crossref – allowing the references to be picked in for instance individual ORCID profiles***	

### PID community stakeholders

- Governing bodies
- PID Service Providers
- (Possible) PID Federation
- RDA Working Groups
- PID-related projects and initiatives
- International coordination bodies
- Publishers
- National offices
- National research and education network (NRENs)
- Research funders
- HEIs/research centres/institutes
- Researchers
- Start-ups

## So where do CRIS fit into this diverse group of stakeholders?

Strong variations across countries. One clear best practice case study: Finland



## So where do CRIS fit into this diverse group of stakeholders?



**O&A Members** 

Active Organisational & Affiliate

**RDA Groups** 

WG & IGs: 107

Discover what RDA Working and Interest Groups and all other Groups are up to and find out how to join them. Explore Groups

ABOUT RDA ▼ GET INVOLVED \*

GROUPS ▼

members

RECOMMENDATIONS RDA FOR DISCIPLINES \*

PLENARIES & EVENTS \*

NEWS & MEDIA ▼

& OUTPUTS ▼

## **RDA National PID Strategies Guide and Checklist**

Attachment	Size
GUIDE and CHECKLIST Pathways to National PID Strategies (RDA WG Output) .pdf	190.44 KB
AUSTRALIA Case Study - National PID Strategies.pdf	108.6 KB
CANADA Case Study - National PID Strategies.pdf	87.38 KB
d CZECH REPUBLIC Case Study - National PID Strategies.pdf	108.51 KB
FINLAND Case Study - National PID Strategies.pdf	89.72 KB
KOREA Case Study - National PID Strategies.docx.pdf	67.42 KB
■ NETHERLANDS Case Study - National PID Strategies.pdf	83.56 KB
d GERMANY Case Study - National PID Strategies.docx.pdf	95.54 KB
■ NEW ZEALAND Case Study - National PID Strategies.docx.pdf	86.69 KB
d UNITED KINGDOM Case Study - National PID Strategies.pdf	151.76 KB
GUIDE and CHECKLIST_ Pathways to National PID Strategies (RDA WG Output) FINAL.pdf	195.74 KB
☑ National-PID-Strategies-Checklist Visual.pdf	5.71 MB

#### **National PID Strategies WG**

Status: Recognised & Endorsed

Chair(s): Christopher Brown, Natasha Simons,

Daniel Bangert, Shawna Sadler

Secretariat Liaison: Bridget Walker

TAB Liaison: Mingfang Wu

https://rd-alliance.org/group/national-pid-strategieswg/outcomes/rda-national-pid-strategies-guide-and-checklist

## So where do CRIS fit into this diverse group of stakeholders?

Home / EOSC Components /

## **EOSC PID Meta Resolver (PIDMR)**



coec FAIRCORE4EOSC

Enabling a FAIR EOSC ecosystem



## Expected impact of the PID Meta Resolver:





Facilitated compilation and analysis of data collections



More support for researchers' work with PIDs

#### **Related Case Studies:**



**Mathematics** 



Social Sciences & Humanities

### Overview

The increasing use of PIDs to reference all types of research results is a major step forward in meeting future requirements for the FAIRness of (research) data. Although this trend is very welcome, new challenges arise in processing these PIDs and integrating them into different research processes. The biggest difficulty is the multitude of systems used to create and maintain PIDs. The challenge is to know which system is responsible for the resolution process, the process that provides the referenced (meta-)data for a PID. A

#### Partners:



GRNET



Gesellschaft für wissenschaftliche Datenverarbeitung Göttingen



**OpenAIRE** 

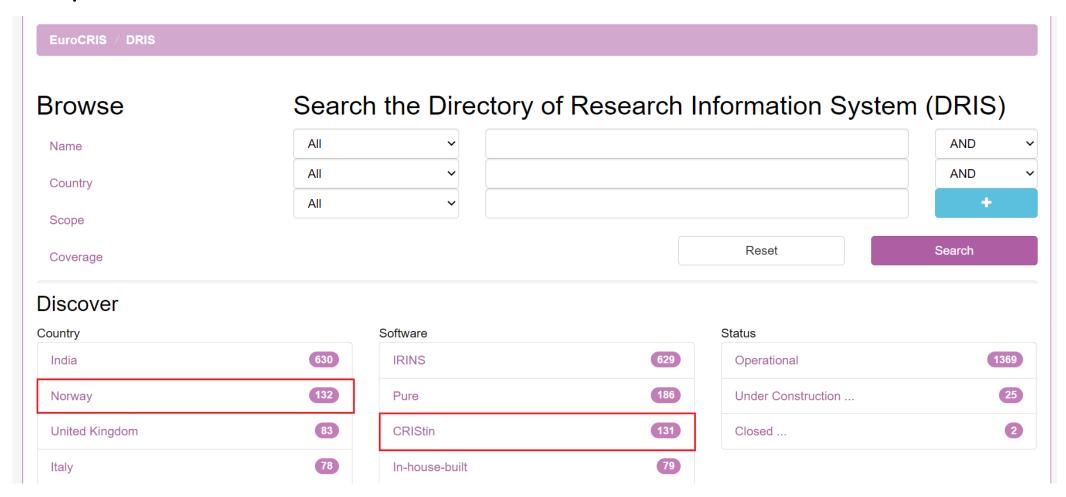
https://faircore4eosc.eu/eosc-corecomponents/eosc-pid-meta-resolver-pidmr



University of Helsinki

## Pros and Cons of PIDs for CRIS registries (euroCRIS DRIS)

Not quite the same sense of 'community' as there is for (largely open source)
repositories





Søk etter prosjekter, resultater og personer





#### **VELG FILTRE FOR Å BEDRE TREFFET:**

✓ INSTITUSJON

X Universitetet i Oslo (9 959) Oslo universitetssykehus HF (752)

UiT Norges arktiske universitet (176)

Vis flere

#### Maria Stavrinou

**FYSIKER** 

ved Klinikk for radiologi og nukleærmedisin ved Oslo universitetssykehus HF



#### **Mads Andenæs**



#### **PROFESSOR**

ved Institutt for privatrett ved Universitetet i Oslo

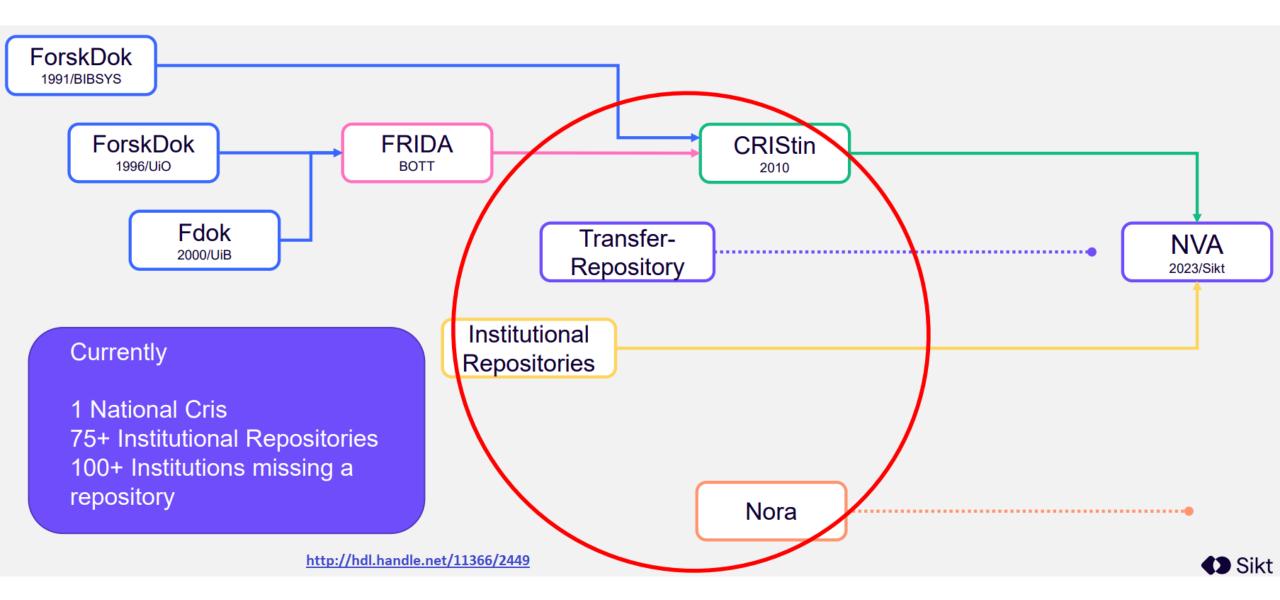


#### **PROFESSOR II**

ved Høgskolen i Innlandet

✓ SEKTOR

## Pros and Cons of PIDs for CRIS registries (euroCRIS DRIS)



# Identifiers







- Persistent IDs is used where possible
- Every person can connect their ORCID
- All organizations have a ROR ID
- DOIs used wherever relevant
- Connection between research data, research results, projects, grants etc.
- Biobanks will be connected
- Investigating RAiD for Projects
- Pilot on DOI for Grants
- Connect Approvals originating from Ethical assessments as well as Privacy assessments relating to Research projects sikt

## Pros and Cons of PIDs for CRIS registries (euroCRIS DRIS)

- Not quite the same sense of 'community'
  We have (free) DSpace-based handle IDs anyway



## **EuroCRIS** / Support processes / DRIS

Please use this identifier to cite or link to this item: <a href="http://hdl.handle.net/11366/2519">http://hdl.handle.net/11366/2519</a>

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eurocris.dris.status	Operational DataCite Consor		onsortium?

 $\times$ 







## Thanks!

## Any questions, comments?



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<a href="mailto:@pcastromartin">@pcastromartin</a>