Services Roadshow by

Persistent Identifiers

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Why PIDs matter

The Potential of PIDs

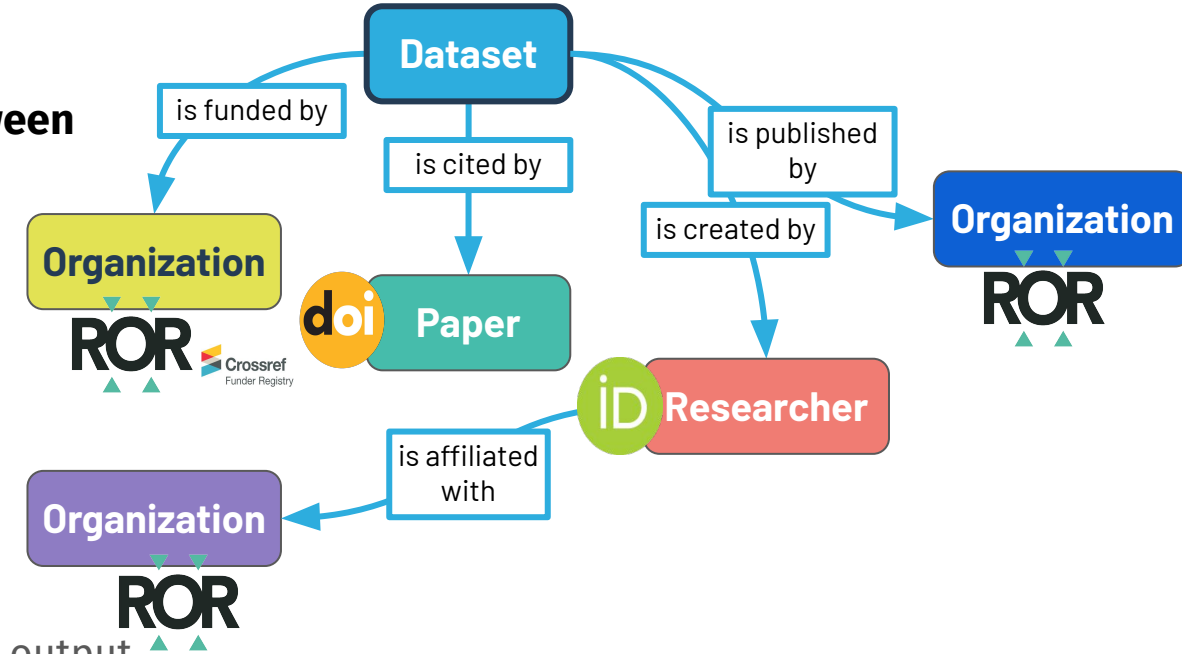
- persistent, globally unique and resolvable **identifier** attached to digital resources (e.g., publication, dataset)
- key for FAIR RDM: **identifies & link** research assets
  - enhances data findability, accessibility, citability
- accompanying metadata
  - standardized, interoperable
  - rich and sustainable descriptions
  - incorporation of other PIDs for resource connections
  - reduces admin work & errors through automated processes and validation
- useful for the whole research lifecycle

What is connection metadata?

Metadata that represents relationships—connections—between entities

Examples:

- A paper cites a dataset
- A person authors a paper
- A person is affiliated with an institution
- An institution funds a research output
- A dataset is compiled/created by software



No PID? Not FAIR!

To be Findable:

- **F1. (meta)data are assigned a globally unique and eternally persistent identifier.**
- **F2. data are described with rich metadata.**
- **F3. (meta)data are registered or indexed in a searchable resource.**
- **F4. metadata specify the data identifier.**

To be Accessible:

- **A1 (meta)data are retrievable by their identifier using a standardized communications protocol.**
- A1.1 the protocol is open, free, and universally implementable.
- A1.2 the protocol allows for an authentication and authorization procedure, where necessary.
- **A2 metadata are accessible, even when the data are no longer available.**

To be Interoperable:

- **I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.**
- I2. (meta)data use vocabularies that follow FAIR principles.
- **I3. (meta)data include qualified references to other (meta)data.**

To be Re-usable:

- **R1. meta(data) have a plurality of accurate and relevant attributes.**
- **R1.1. (meta)data are released with a clear and accessible data usage license.**
- **R1.2. (meta)data are associated with their provenance.**
- **R1.3. (meta)data meet domain-relevant community standards.**

FORCE 11: FAIR Principles

Explain the service

Service and technical concept

Objective: *evolve PID service landscape within NFDI at all levels (technical, organisational, methodological, and in communication)*

- integrate existing PID infrastructures
- improve metadata quality and mapping
- training & outreach
- support PID integration in consortia
- align with national PID strategy (PID Network)

Initialisation | Integration | Ramp-Up

The PID Coordination Hub

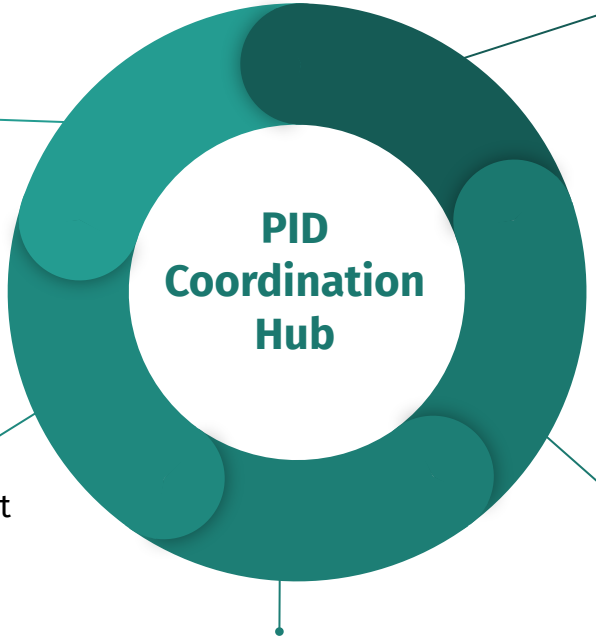
Vision: PID Coordination Hub

Governance

- Decision matrix for PID (provider) selection
- NFDI-wide PID policy
- Compliance testing with PID policies (EOSC)

Use cases

- Instruments
- Physical Objects
- High-granular/ warm data
- Projects & grants (explorative)



Metadata & Interoperability

- Support for metadata quality assessment
- Guidelines for metadata harmonization
- Data Type Registry / PID Metaresolver

→ Create foundation for NFDI PID Graph

Focus Groups
(ELN / DMP)

Target group-specific community engagement:

- Repository managers
- Researchers
- Organizations
- Decision makers

Support & Information

- Linking existing PID resources
- Display best practices
- Helpdesk / Training

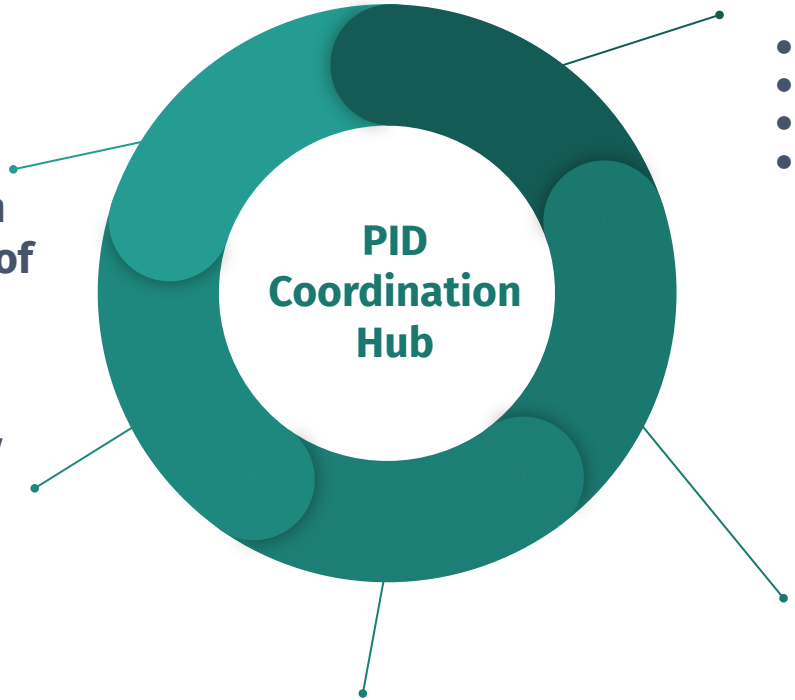
https://pid.services.base4nfdi.de

PID4NFDI

Service vision

Transparent information on governance & cost models of PID providers

Metadata & Interoperability Support
based on high TRL services



Use Cases
special focus on:

- Instruments
- Physical Objects
- High-granular/ warm data
- Projects & grants (explorative)

Focus Groups

ELNs &
DMPs

Community Engagement with Target Groups

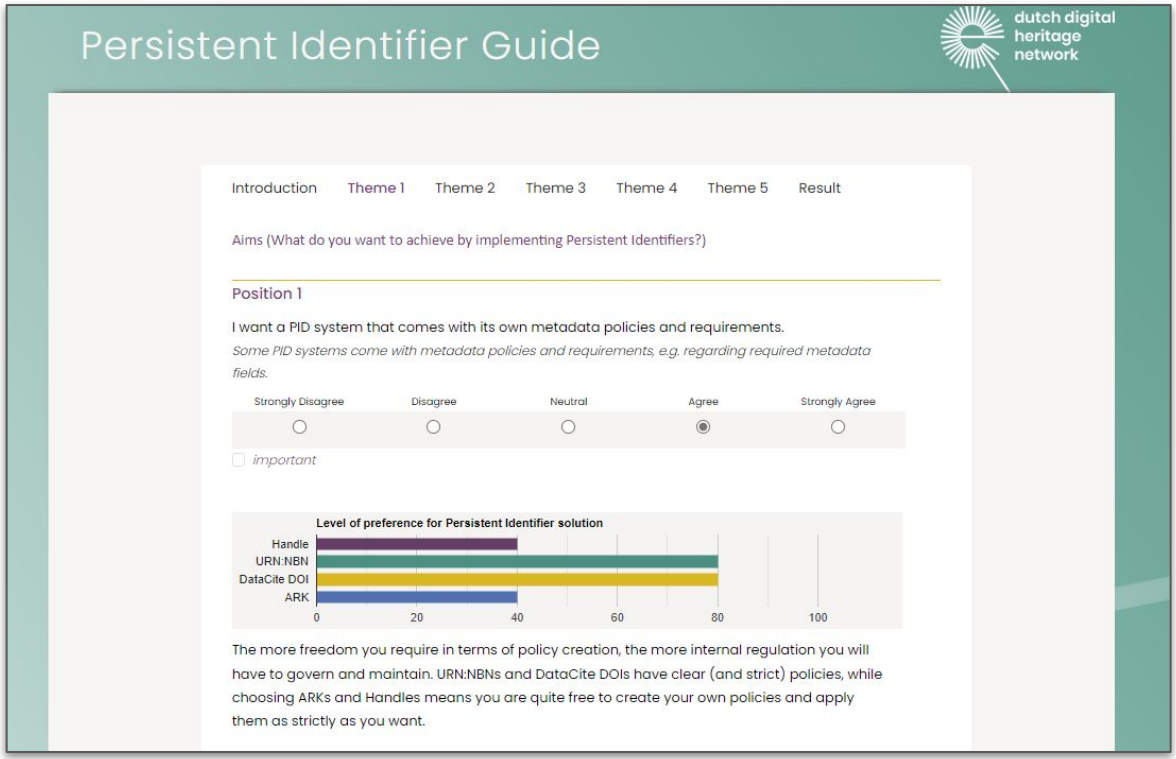
Support & Information on PIDs
including training and helpdesk

base4nfdi Basic Services for NFDI

pid.services.base4nfdi.de

PID Provider Selection Guide

- Overview of PID providers for NFDI use cases
- Support for selection of PIDs and PID providers (considering POSI principles)
- Transparency of selection criteria (e.g. metadata policies)

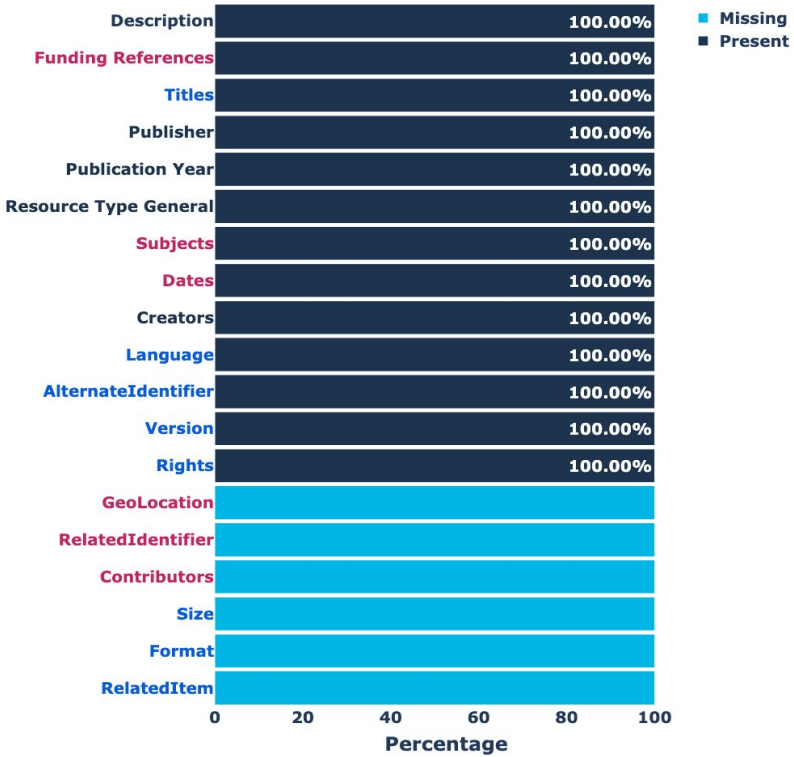


https://www.pidwijzer.nl/en/pid_results/new

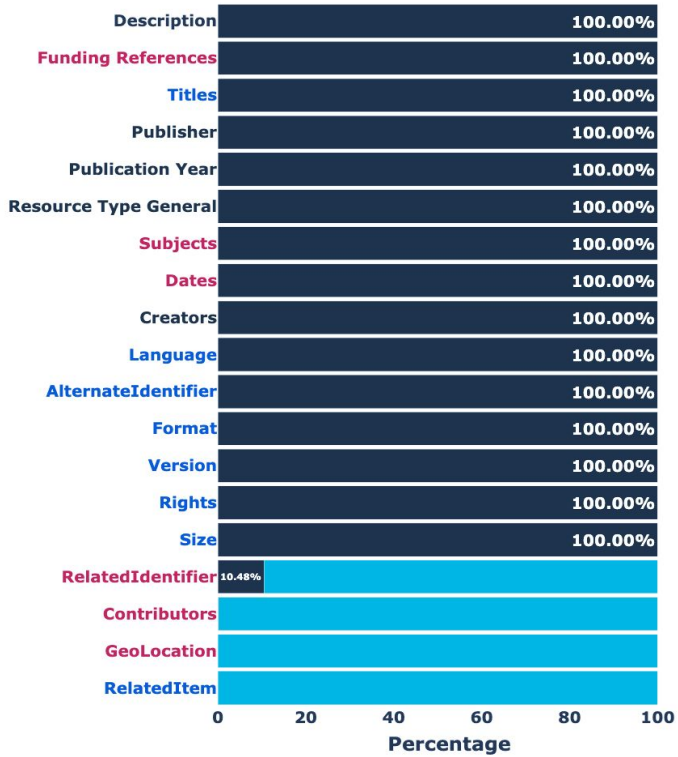
StrainInfo Use-Case

Metadata Comparative Analysis

Preliminary analysis



Secondary analysis



mandatory

recommended

optional

Analysis: Sara El-Gebali – DataCite

Training Concept

Modular approach for practical guidance

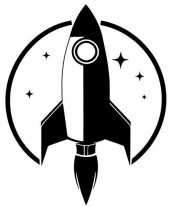
Target groups: infrastructure managers, data managers/curators, researchers, trainers/intermediaries, decision makers

Level 1 – Fundamental

- Explaining benefits & providing overview

Level 2 – Advanced

- targeted training materials, integration of multiple PIDs, best practices



Level 3 – Expert

- covering research (data) lifecycle with connected PIDs, customized support

ORCID - Open Researcher and Contributor iD

What is ORCID?

The ORCID (Open Researcher and Contributor ID) is an ID for researchers that offers numerous advantages to you and your research institutions:

It simplifies tasks for researchers, such as maintaining their publication lists. Anyone contributing to the scientific research process can use their ORCID iD to uniquely link their publications, research data, and other outputs of the research process (e.g., research software). This ensures that these outputs are visible and reliably connected to their creators.

In addition, the ORCID iD enables researchers to connect with funding bodies, universities, research communities, publishers, and repositories. Automated personal identification helps your institution gather information on researchers' scientific output from external sources, aggregate research information (e.g., in a research information system), and manage publications internally more efficiently.

ORCID for Researchers and other Contributors

How can I get an ORCID iD?

Find instructions on how to set up your ORCID record and get an ORCID iD in the ORCID documentation on Vimeo.

How do I find out if I already have an ORCID iD?

You remember vaguely that you have once registered for an ORCID iD while submitting a paper? Search with your name for your ORCID profile (record) in the ORCID registry.

Which PID can be used for Organisations?

UR) DOI

RE) ORCID

PP) ROR

base4nfdi Basic Services for NFDI

Funded by **DFG** as part of **NFDI**.

Grant Numbers: 521453681, 521460392, 521462155, 521463400, 521466146, 521471126, 521473512, 521474032, 521475185, 521476232

Thank you!
Questions?

PID4nfdi

Please get in touch via:

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https://pid.services.base4nfdi.de

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