

DataCite

Assigning DOIs for FAIR research outputs

Helena Cousijn, PhD
June 7, 2021

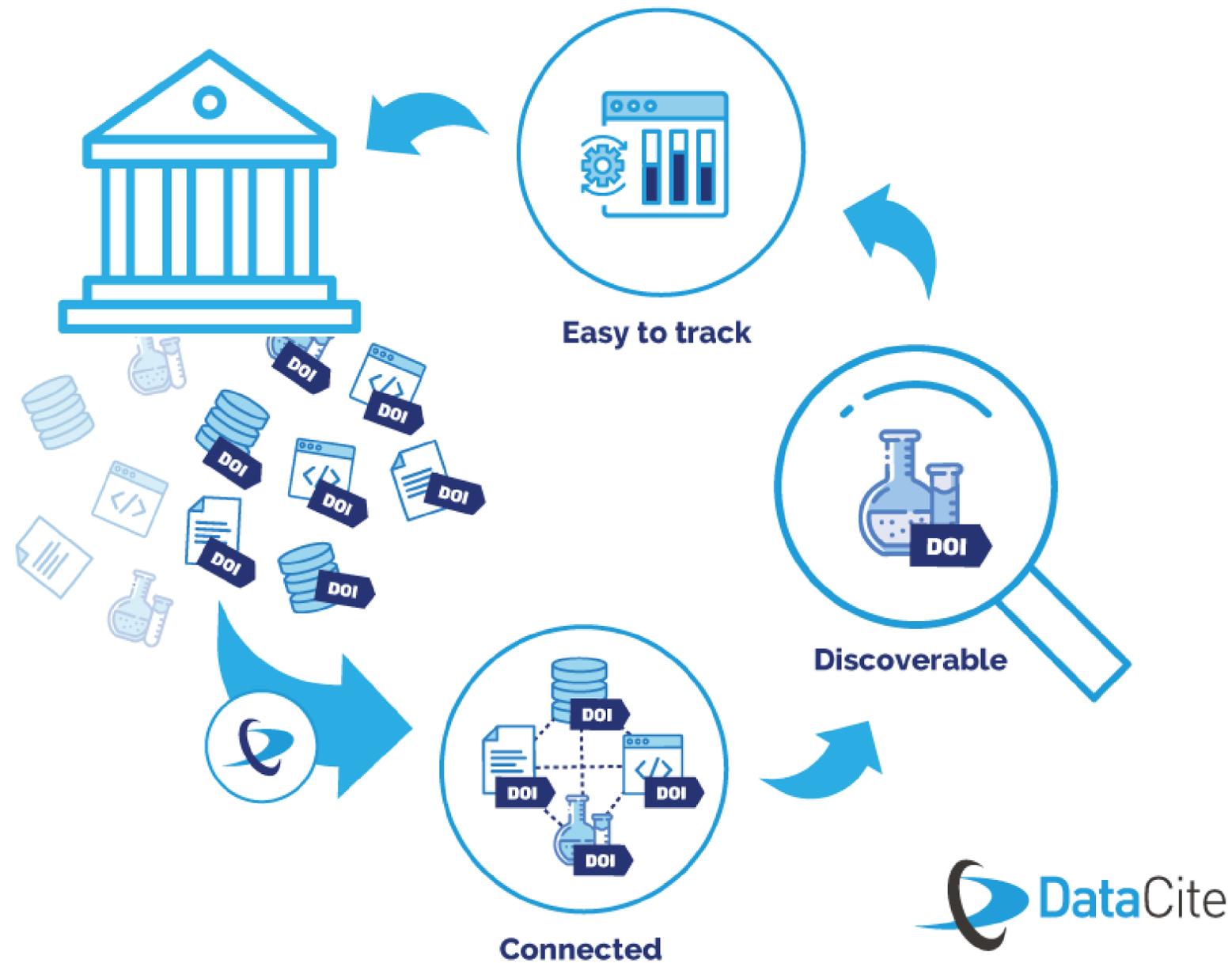
About DataCite

Global non-profit membership organization working with 2100+ repositories in the world to provide DOIs for data and other research outputs.

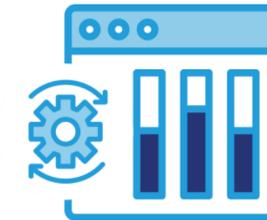
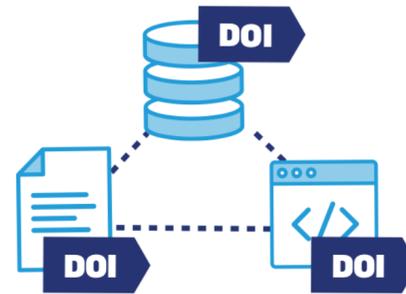
<https://datacite.org/>

Connecting research,
identifying knowledge

What we do



Our value



Registering DataCite DOIs makes your research outputs discoverable.

DataCite services make it easy to follow best practices.

DataCite services help you track and report on your research.

- A DOI makes your research outputs uniquely identifiable.
- Metadata that you register with DataCite is in a central location, harvestable by anyone.
- Metadata for our Members' research outputs appear in other search engines.

- We make research data management easy: you register your first DOI in less than 1 minute.
- DataCite DOIs and metadata help you make your research FAIR.
- We connect you to the DataCite Member community, which is full of passionate people who share experience and continue to support best practice.
- Our metadata schema is extensive and has been adopted by other PID service providers globally.

- A DOI enables easy tracking of your research outputs through simple user interfaces.
- DataCite services make institutional reporting simple.
- DataCite services support data citation and usage analytics

PIDs make data FAIR



Data should be Findable	<p>F1. (meta)data are assigned a globally unique and persistent identifier (DOI)</p> <p>F2. data are described with rich metadata</p> <p>F3. metadata clearly and explicitly include the identifier of the data it describes</p> <p>F4. (meta)data are registered or indexed in a searchable resource</p>
Data should be Accessible	<p>A1. (meta)data are retrievable by their identifier using a standardized communications protocol</p> <p>A1.1 the protocol is open, free, and universally implementable</p> <p>A1.2 the protocol allows for an authentication and authorization procedure, where necessary</p> <p>A2. metadata are accessible, even when the data are no longer available</p>
Data should be Interoperable	<p>I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.</p> <p>I2. (meta)data use vocabularies that follow FAIR principles</p> <p>I3. (meta)data include qualified references to other (meta)data</p>
Data should be Reusable	<p>R1. meta(data) are richly described with a plurality of accurate and relevant attributes</p> <p>R1.1. (meta)data are released with a clear and accessible data usage license</p> <p>R1.2. (meta)data are associated with detailed provenance</p> <p>R1.3. (meta)data meet domain-relevant community standards</p>

DataCite
Community

Our community



2200+

Repositories

245

Members

46

Countries

25m+

DOIs

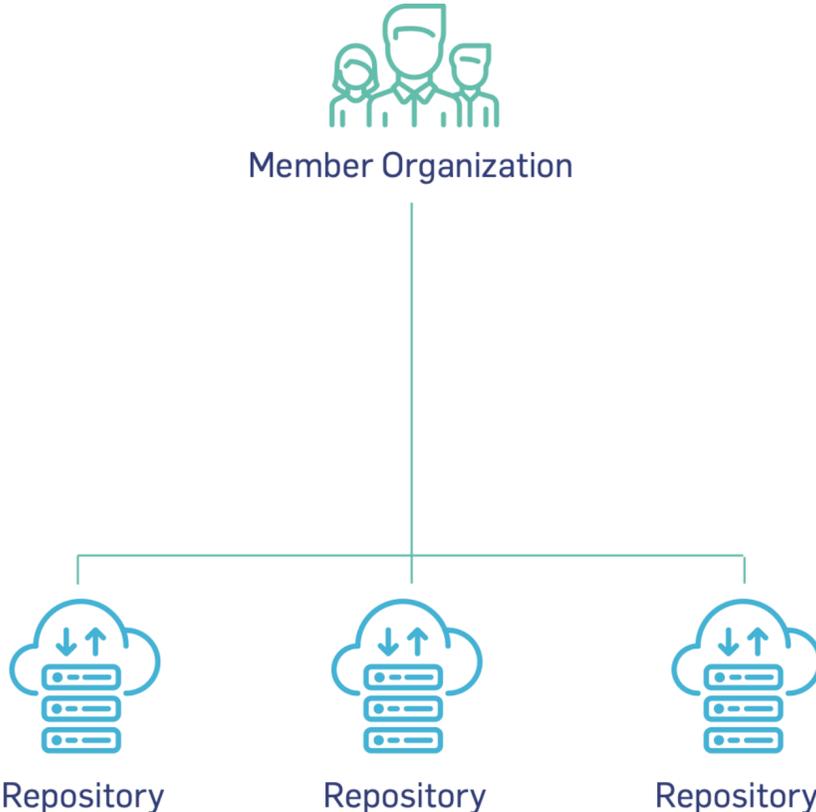
900+

Organizations

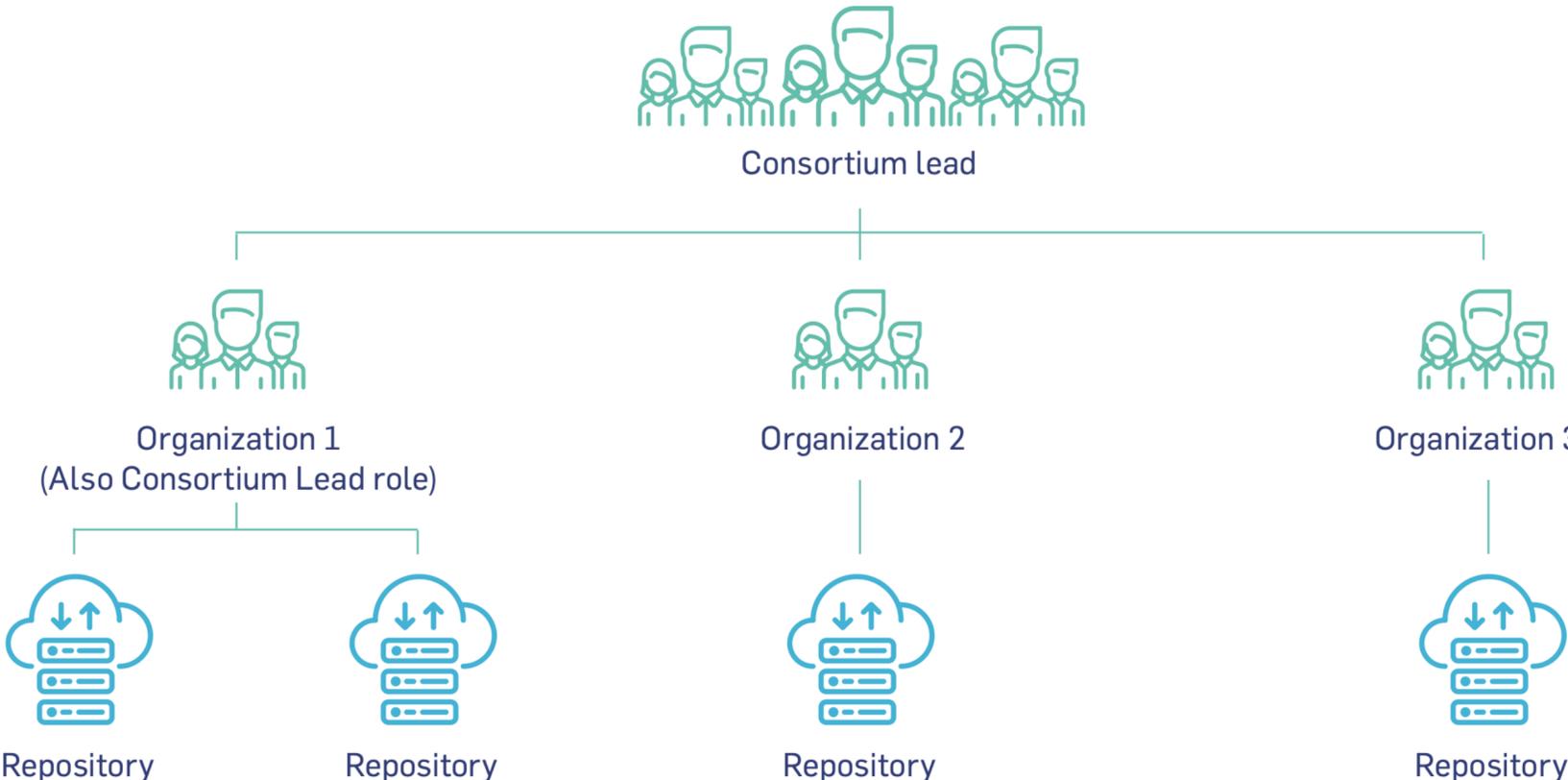
DataCite Membership



Direct Membership



Consortium Membership



In Africa



DataCite @datacite · May 28

We'd like to welcome @UbuntuNet as @datacite's latest consortium lead.



We're looking forward to building Africa's first DataCite consortium with you, spreading the word of #DOIs, #PIDs, #OpenScience and #metadata !!!

DataCite
DOI registration

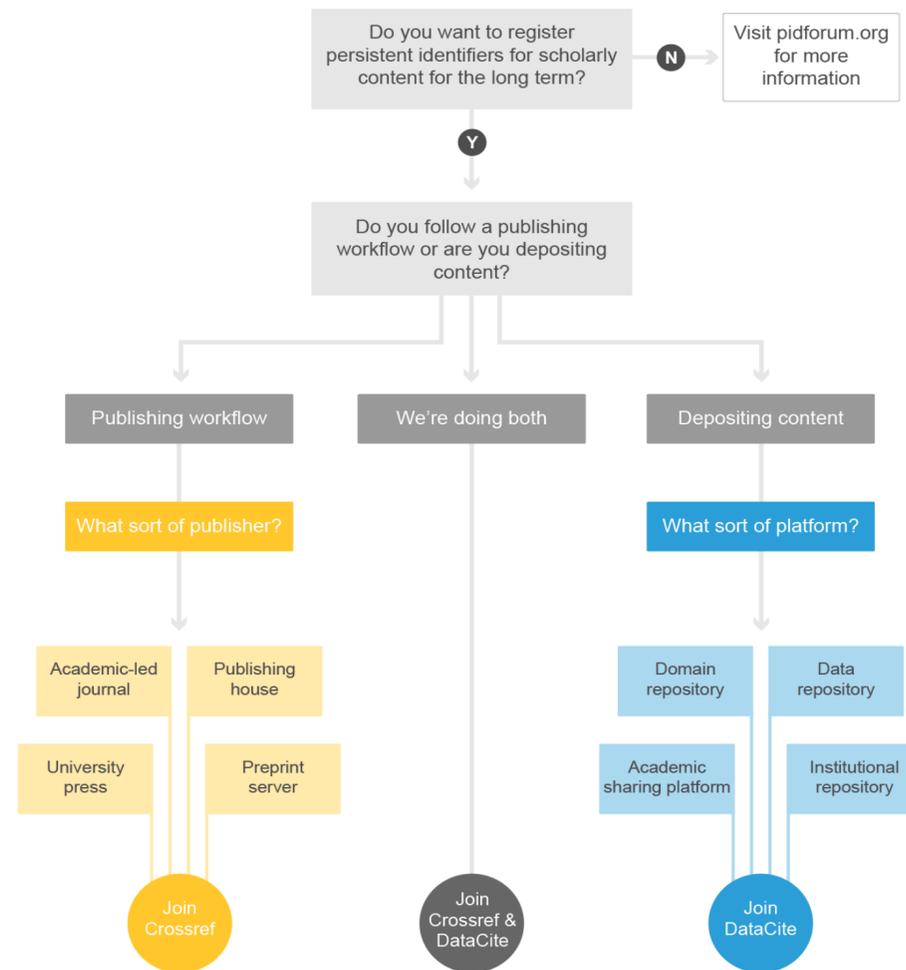
Types of research outputs



.....
DATACITE DOIs ARE SUITABLE FOR A WIDE
RANGE OF RESEARCH OUTPUTS

1. Research datasets and collections, associated workflows, software, images, and models
2. Grey literature such as theses, dissertations, reports, unpublished conference papers, newsletters, preprint journal articles, technical standards, and specifications for which the institutional repository is the primary publication point.

Crossref or DataCite



Crossref is a membership organisation for scholarly publishers providing services to help the scholarly community find, cite, link, assess and re-use published content.



DataCite is a membership organisation working with the repository community to register DOIs for a range of content and provides services to create, find, cite, connect, and use research.

Create and Manage DOIs



DataCite membership allows you to create and manage DOIs for all of your repositories. You can do this through:

- Our primary REST API that supports JSON and enables automated DOI registration
- Our manual interface that enables you to register DOIs in less than a minute.
- Registered DataCite Service providers that provide a platform where you can register DOIs.



DOI web interface

ONE-STOP SERVICE TO CREATE
AND MANAGE DOIs FOR YOUR ORGANIZATION

1. Tools to create, manage, and find DOIs and metadata
2. Statistics on DOI activities
3. Link checker information
4. Maintain organization information



The screenshot shows the DataCite Fabrica web interface. At the top right, there are links for "Support" and "Sign in". The main header area has a dark blue background with a network diagram and the text "DataCite Fabrica" and "Register and manage DOIs and metadata." Below this, a paragraph explains that Fabrica is a one-stop service for creating, finding, connecting, and tracking DOIs, and lists supported APIs (REST, MDS, EZ, OAI-PMH, GraphQL). Three main service areas are highlighted with icons: "Repositories" (tree icon), "Prefixes" (tag icon), and "DOIs" (document icon). The footer contains four columns of links: "About DataCite" (What we do, Governance, Members, Steering groups, Staff, Job opportunities), "Services" (Assign DOIs, Metadata search, Event data, Profiles, re3data, Citation formatter), "Resources" (Metadata schema, Support, Fee Model), and "Community" (Members). A "Contact us" section includes social media icons and links for Imprint, Terms and conditions, and Privacy policy.

DataCite
Discover and connect

Relations in the metadata



Organizations that register DOIs submit metadata following a metadata schema

<i>Mandatory</i>	<i>Recommended</i>	<i>Optional</i>
Identifier	Subject	Language
Creator (with ORCID)	Contributor	Alternate ID
Title	Date	Size
Publisher	Related identifier	Format
Publication year	Description	Version
Resource Type	GeoLocation	Rights

<https://schema.datacite.org>

Current version 4.4

Metadata discoverability



All metadata submitted to DataCite are available under a CC0 license and can be harvested in different ways. This means that outputs with a DataCite DOI are made available on different platforms such as:

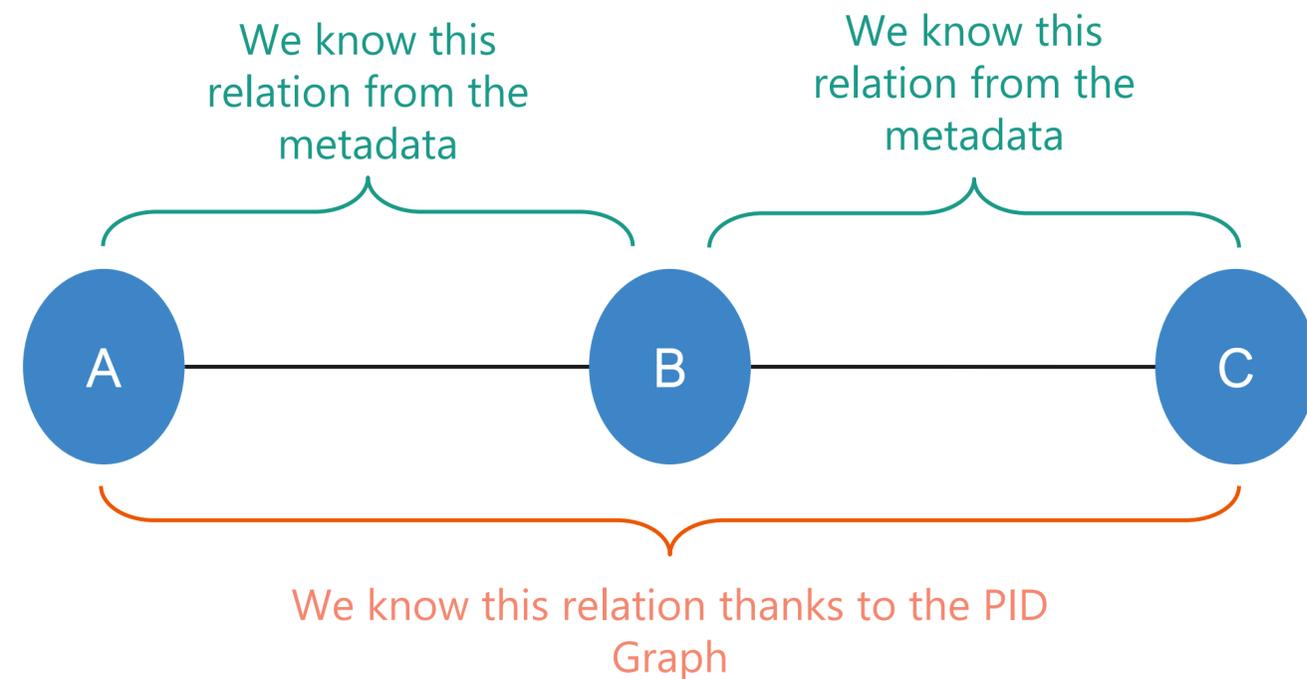
- DataCite Commons
- OpenAIRE
- Google Dataset Search (for resource type 'dataset')
- Clarivate's Data Citation Index

We are currently working on a new service for metadata harvesting.

PID Graph

The PID Graph is a concept from one of our partner projects, FREYA (<https://www.project-freya.eu>).

The basic idea is to link PIDs for different entities together via relations in their metadata to enable the discovery of connections at least two steps away.



Find and Connect Research



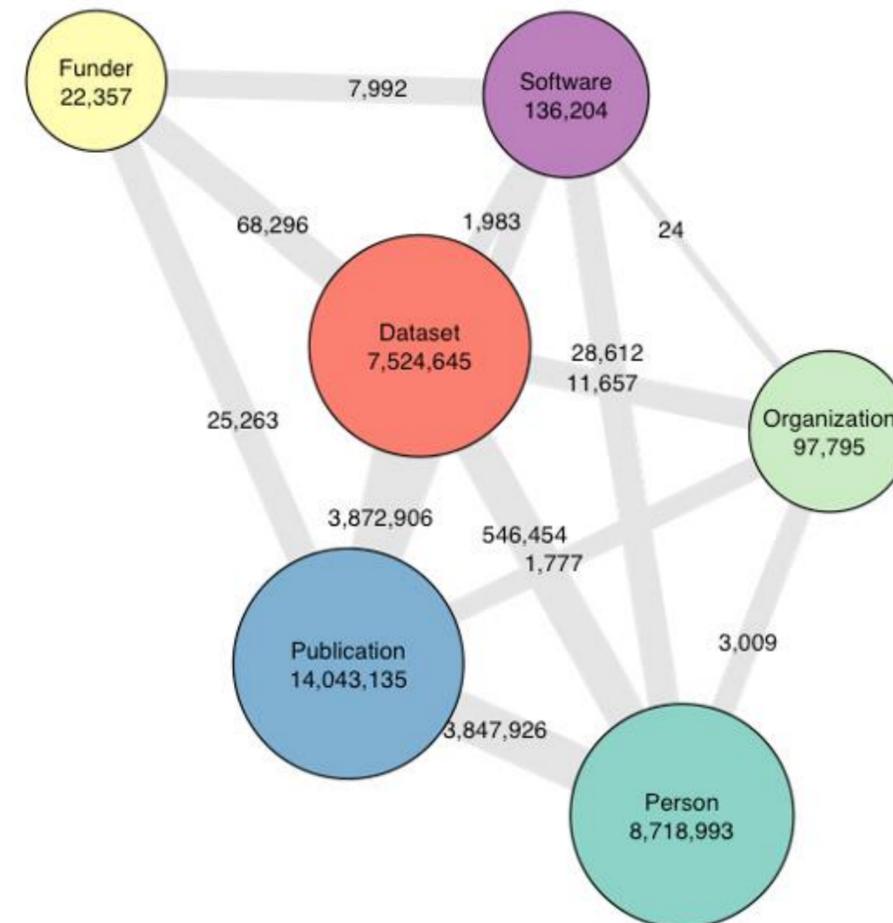
Find Research
with DataCite Commons



commons.datacite.org

PID Graph

Number of nodes and connections (08 MAI 2020)





Get in touch!



Email us:
info@datacite.org



Follow us:
[@datacite](https://twitter.com/datacite)



Talk to us:
pidforum.org



Read about us:
datacite.org



Get support:
support.datacite.org
support@datacite.org