DataCite

CONNECTING RESEARCH,
IDENTIFYING KNOWLEDGE

IGSN IDs
Getting Started

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Introduction to the IGSN ID

What is the International *Generic* Sample Number?

The IGSN ID is a globally unique and persistent identifier for material samples

It can be assigned to any sample from any discipline from anywhere in the universe

IGSN

What Can be Assigned an IGSN ID?

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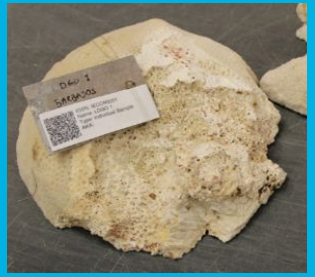

Individual material samples

Aggregations of material samples

Features-of-interest or collection sites

Destroyed, discarded, or ephemeral samples

What are IGSN ID Use Cases?

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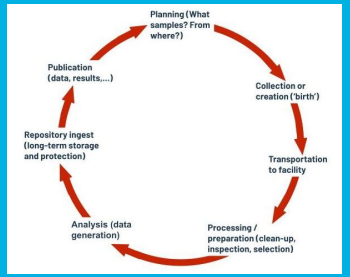
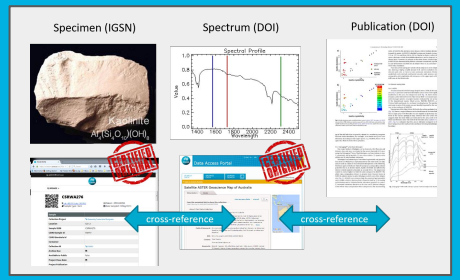
Link samples to the Web via metadata & landing pages

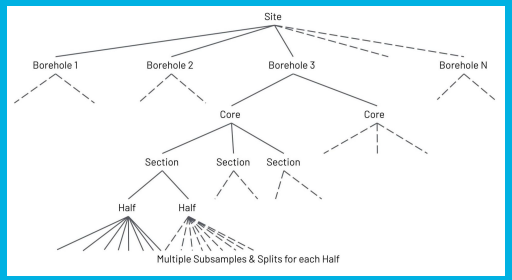
Locate samples via labelling for collection management



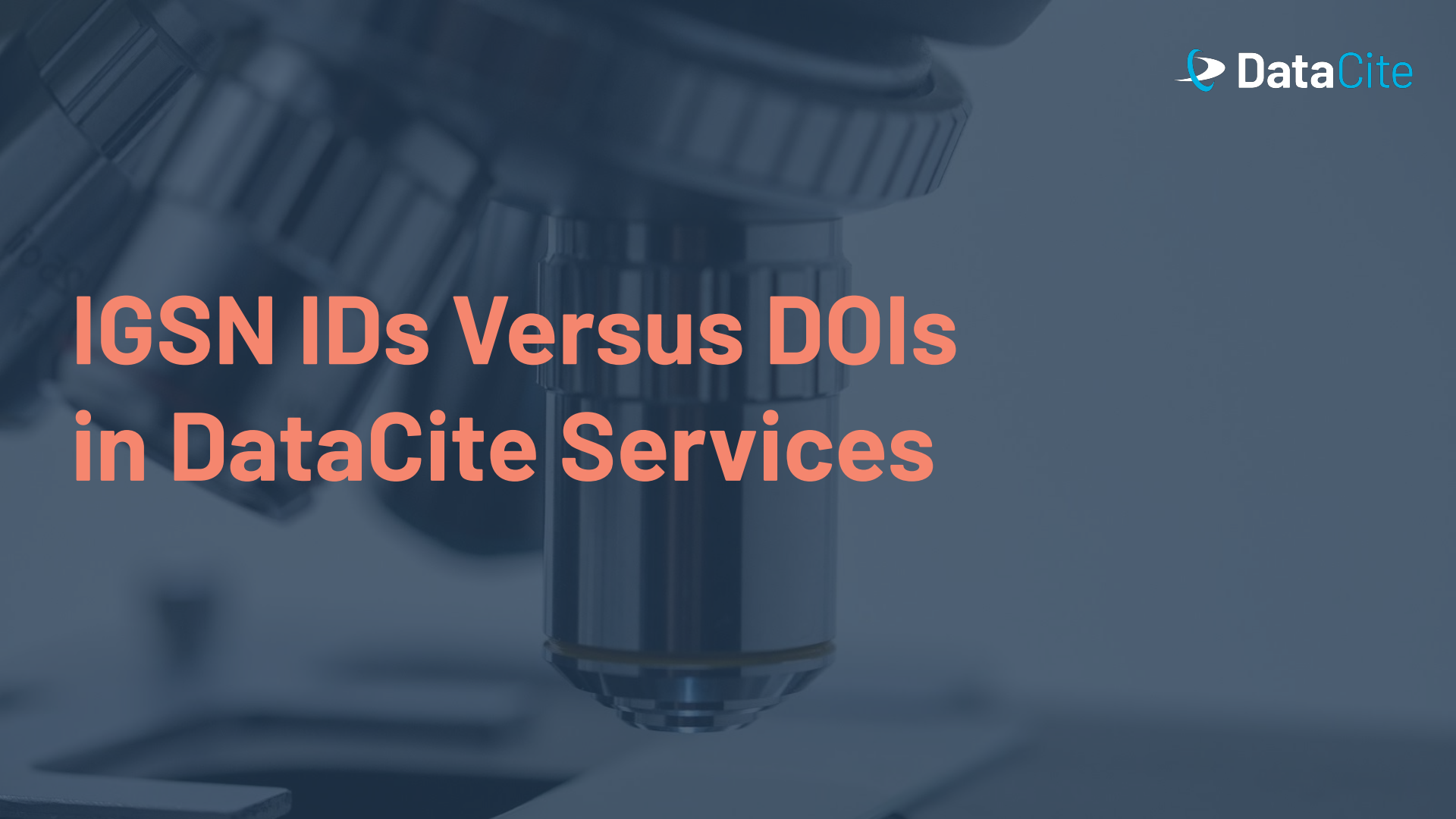
Track samples throughout their lifecycle



Link samples with datasets & articles for discovery and credit



Describe collection site, sample, & subsample relationships



IGSN IDs Versus DOIs in DataCite Services

What is the Same for IGSN IDs & DOIs?

IGSN IDs are functionally DOIs

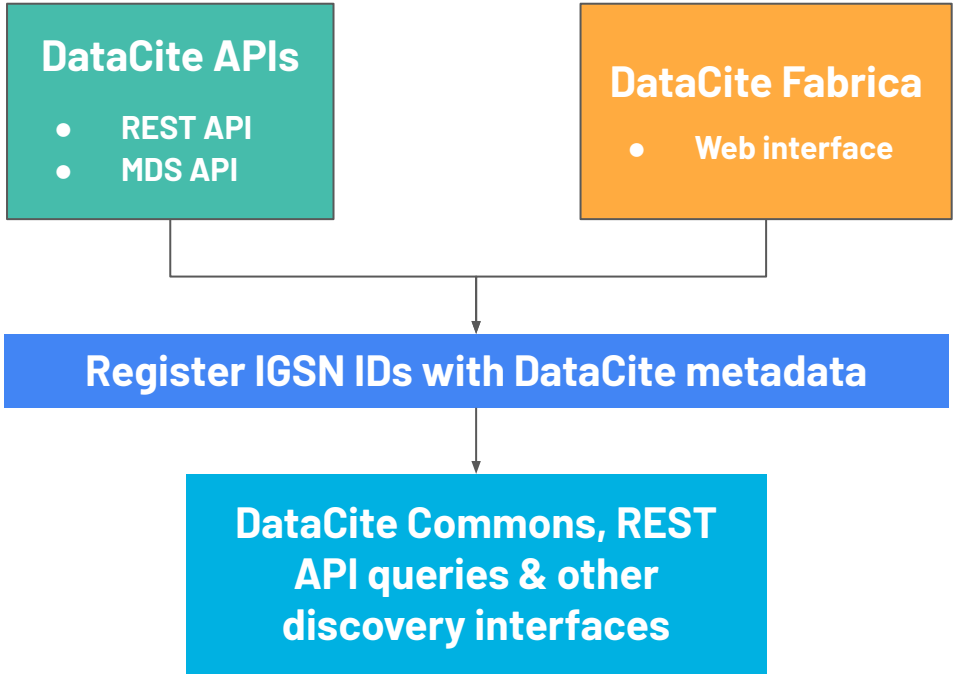
- IGSN IDs can be registered through
  1. Fabrica web interface either via the **DOI Form** or the **File Upload**
  2. DataCite APIs. New users should use the **REST API**
  3. Integrations from **DataCite Service Providers**

- IGSN IDs are registered with metadata encoded in the **DataCite Metadata Schema**

- IGSN IDs have a **prefix and a suffix**

What is the Same for IGSN IDs & DOIs?

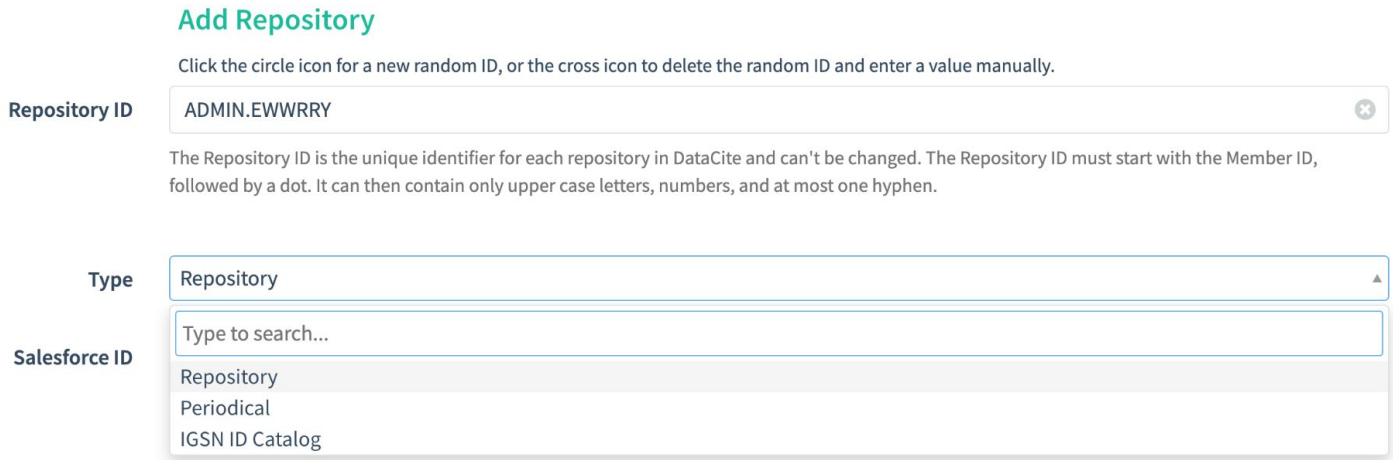
- IGSN IDs resolve to landing pages describing the material sample or feature-of-interest (collection site)
- Findable IGSN IDs appear in DataCite Commons, REST API queries, and other discovery services



How Do IGSN IDs Differ From DOIs?

IGSN IDs are differentiated from DOIs at the Repository level

- IGSN IDs must be registered in an **IGSN ID Catalog Repository**
  - Select 'IGSN ID Catalog' from the 'Type' options in '**Add Repository**'. This setting cannot be changed later
  - IGSN ID Catalog Repositories must be used exclusively to register IGSN IDs



What Should I Consider When Implementing IGSN IDs?

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Internal discussion points for implementing IGSN IDs may include

- Can our current system for DOI registration handle multiple Repository account credentials and prefixes?
- Should the department/service managing our DOI registration also control our IGSN ID Catalog Repository(ies)?
- What metadata sources are available to assist discovery and distinction of our samples?
- What information do domain experts need about the samples that must be displayed on landing pages?
- Is it possible to have common landing pages or do they need to be customized for different departments/disciplines?
- Should the department/service creating and hosting our DOI landing pages do the same for IGSN ID landing pages?

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IGSN ID Metadata

How Do I Complete IGSN ID Metadata?

- All IGSN IDs are registered with the `resourceTypeGeneral` DataCite Metadata Schema property set to `PhysicalObject`
- IGSN IDs have **specific metadata guidance** developed by the IGSN–DataCite Crosswalk and Metadata Management Working Group
- There are also some **best practices** for enriching IGSN ID metadata
- DataCite is continuing to work with the IGSN e.V. to expand and refine metadata best practices for IGSN IDs over time

What Sample Information is Needed for Mandatory Metadata Properties?

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1 `Identifier`

- Automatically populated with a DOI upon the creation of an IGSN ID

2 `Creator`

- Sample collector/creator, chief scientist, curator, or person who deposited the sample into a repository

3 `Title`

- Appropriate elements that help find and distinguish a sample; for example,
  - Basic form of the object
  - Material(s) that compose to the sample
  - Local sample identifiers

4 `Publisher`

- The organization registering the IGSN ID for the sample

5 `PublicationYear`

- The year the sample was first made available to the research community; likely when the sample is registered

10 `ResourceType`

- Use of ‘material sample’ or ‘feature-of-interest’ is recommended to distinguish between these concepts

10.a `resourceTypeGeneral`

- ‘PhysicalObject’

What Sample Information is Needed for Recommended Metadata Properties?

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6 `Subject`

- Materials that compose the sample. May be categorized under different schemata

7 `Contributor`

- Institutions and people contributing to the collection and management of the sample

8 `Date`

- Events relevant to the sample
- Use `dateType=Collected` for the collection time of the sample

11 `alternateIdentifier`

- Other identifiers for the sample; for example, local sample identifiers

12 `relatedIdentifier`

- New IGSN IDs created in DataCite services are `relatedIdentifierType`'DOI', thus are displayed in DataCite APIs and DataCite Commons, and represented in the PID Graph

17 `Description`

- Use `descriptionType=Abstract` to add information about the sample at its 'birth'
- Use `descriptionType=Methods` to outline the sample collection process

18 `GeoLocation`

- Location where the sample was collected, noting that samples can be 'non-geographic'

How Do I Link Samples to Other Objects?

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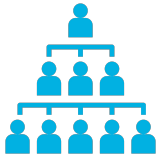
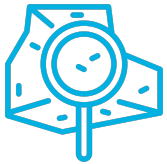
relatedIdentifier metadata is used to create links

	relatedIdentifierType	relationType	resourceTypeGeneral
Parent & child samples identified by IGSN IDs 	doi	IsPartOf	PhysicalObject
Citations in resources identified by PIDs	doi	IsCitedBy	Dataset/ JournalArticle /…
Domain and institution-specific metadata on the Web 	URL	HasMetadata	–

How Do I Link Samples to Contributors?

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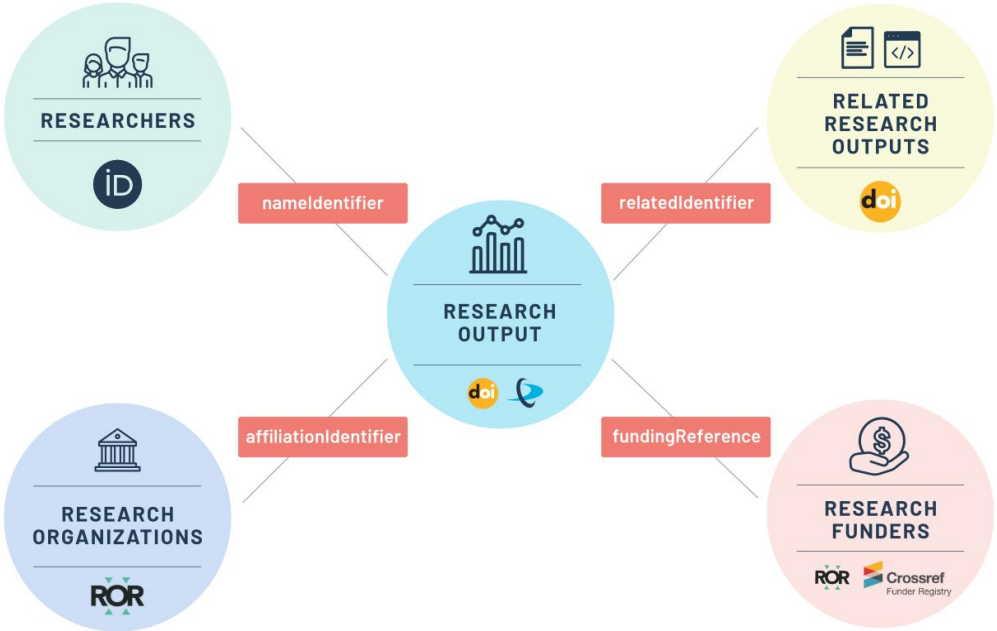
`nameIdentifier` metadata is used to create links to people, and `affilationIdentifier/fundingReference` to organizations



Available Resources

Important Resources

DataCite General

- Support Site: https://support.datacite.org
- Getting Started: https://support.datacite.org/docs/getting-started
- Fabrica Guide: https://support.datacite.org/docs/doi-fabrica
- Testing Guide: https://support.datacite.org/docs/testing-guide
- REST API Guide: https://support.datacite.org/docs/api
- Metadata Schema: https://schema.datacite.org/

IGSN ID Specific

- Support Pages: https://support.datacite.org/docs/about-igsn-ids-for-material-samples
- IGSN e.V. Website: https://www.igsn.org/

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