4TU.ResearchData & physical objects

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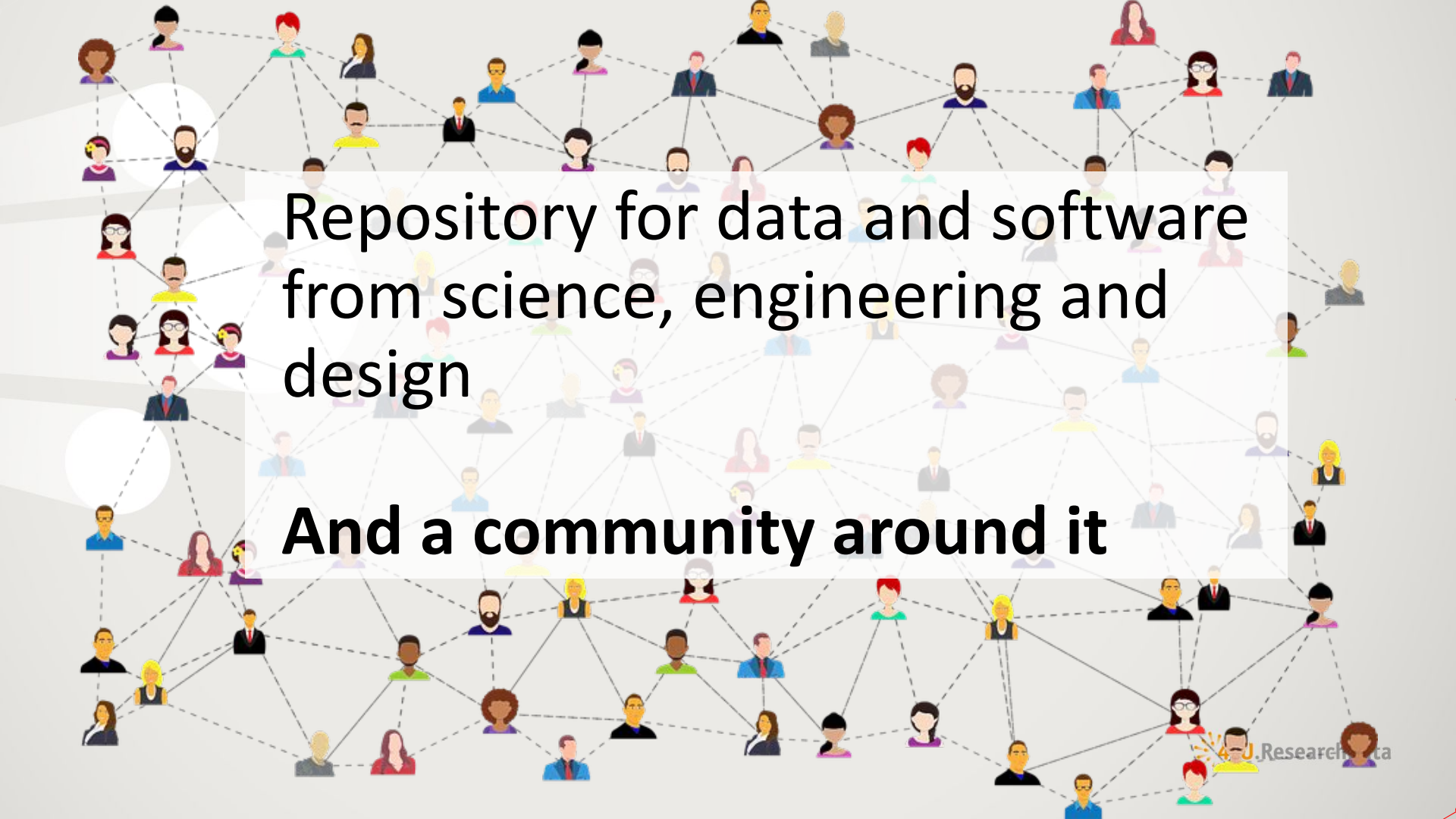Workshop on FAIR for Physical Objects

4TU.ResearchData
SCIENCE • ENGINEERING • DESIGN

Today

1. What is 4TU.ResearchData?

2. Physical objects/samples:

- Persistent identifiers

- Metadata

- Repository

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What is 4TU.ResearchData?

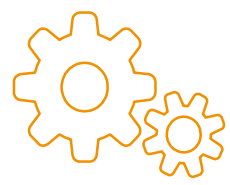Repository for data and software from science, engineering and design

And a community around it

What is 4TU.ResearchData?

- International data repository
  https://data.4tu.nl/portal

- Available to researchers globally

- Founded in 2010

Science *Engineering* *Design*

Sharing

Curation *Access*

Preservation

8,000+
datasets
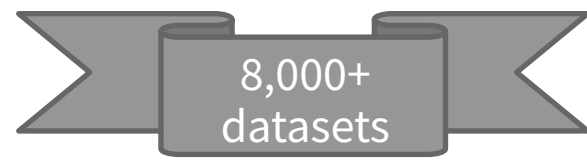
4TU.ResearchData services

- ◆ **Repository - to publish research data and software**
  - – DOIs for every datasets, long-term preservation and integrity check, versioning, metadata review, statistics, restricted access, software publication, specialist services for disciplinary formats and workflows

- ◆ **Training - to teach skills needed for reproducible working with data**
  - – Essentials for Data Support - key training for aspiring data stewards - as part of RDNL
  - – Hands-on workshop for computational skills for reproducible working with data (data and software carpentry)

- ◆ **Consultancy**

- ◆ **4TU.ResearchData Community - network of FAIR Data and Software leaders exchanging knowledge and practice**
  - – Working groups
  - – Researcher Stories
  - – Events and workshops
  - – FAIR Data Fund
  - – Fellowship programme
  - – *Recognising and rewarding FAIR Data*

Highlights 2021: https://data.4tu.nl/info/over-4turesearchdata/highlights

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Physical objects/samples

Persistent identifiers

IGSN IDs for physical samples

IGSN = International Generic Sample Number.

IGSN ID originates from the Geosciences, but IGSN IDs can be applied to all material samples and features-of-interest (e.g., lake, tree, borehole)

IGSN = DOI -> IGSN-DataCite partnership

Registration of IGSN ID uses the same procedure and service as DOI, but IGSN IDs can only be registered with a designated IGSN ID Repository (with its own prefix).

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Metadata

DataCite Metadata Schema supports DOI and IGSN ID

The resourceTypeGeneral property is "PhysicalObject" for all IGSN IDs.

```
<resourceType resourceTypeGeneral="PhysicalObject">Material
sample</resourceType>
```

RelatedIdentifier: describes relationships between the physical sample for which the IGSN ID is being registered and related resources (subsamples, parent samples, datasets, publications, etc.)

4TU.ResearchData can include a link in the dataset metadata to a physical sample via its IGSN.

More info: https://support.datacite.org/docs/igsn-id-metadata

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Repository

Centralized or locally hosted:

To register IGSN IDs you must comply with the DataCite **DOI registration policy,** which states that you can only register a DOI for content that you are responsible for.

Number of IGSN IDs registered:

The DOI fee is based on the total number of DOIs/IGSN IDs registered in the previous calendar year.

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Thank you!

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