#### **Recommendation 4.0**

# Recommendation to use IGSN as the standard reference in technical infrastructures to samples where appropriate

# **Description**

Status:

#### Motivation for this Recommendation:

[shortened from below]

# Recommendation

IGSN is used to identify samples in data infrastructures.

For organizations this means:

• a person or unit should be made responsible to maintain the centres IGSNs.

For data curators this means:

- Enable, train and encourage staff to register IGSN when samples are taken.
- Enable, train and encourage staff to record any parent IGSNs with subsamples.

For researchers it means:

- Record an IGSN with any sample taken.
- Record the parent IGSN with any subsample measured

#### For data infrastructures:

- record a IGSN to identify samples and parent samples and make this data part of the metadata available for harvesting.
- treat IGSN metadata as the primary source of truth and update your own metadata accordingly.

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# **Binding Convention:**

	mandatory	conditional	optional
<b>Helmholtz FAIR Principle</b>			

## **Precondition for Implementation:**

#### **Related Recommendations**

Parent:			
Dependent:			
Other: none			

#### **Contributors**

Names of contributors to this recommendation

#### Content

[1] Plankytė, Vaida, Macneil, Rory, & Chen, Xiaoli. (2023). Guiding principles for implementing persistent identification and metadata features on research tools to boost interoperability of research data and support sample management workflows. Zenodo. https://doi.org/10.5281/zenodo.8284206

### 1. Explanation of the Background and Benefits of the Recommendation

**About** 

History and structure

Current Use of ...

**Motivation** 

#### 2. Possible alternative solutions

# 3. Consideration of the advantages and disadvantages of implementing the recommendation

(quality of content, limitations, interoperability, sustainability: expected future dissemination / technical availability / funding)

#### 4. The Recommendation

IGSN is used to identify samples in data infrastructures.

For organizations this means:

a person or unit should be made responsible to maintain the centres IGSNs.

For data curators this means:

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- Enable, train and encourage staff to record any parent IGSNs with subsamples.

For researchers it means:

- Record an IGSN with any sample taken.
- Record the parent IGSN with any subsample measured

For data infrastructures:

- record a IGSN to identify samples and parent samples and make this data part of the metadata available for harvesting.
- treat IGSN metadata as the primary source of truth and update your own metadata accordingly.

Also see [3] Baldewein et al. (2023). FAIR WISH D7 -Standard Operating Procedure for automatic IGSN registration. Zenodo. https://doi.org/10.5281/zenodo.10401380

# 5. Naming of communities that have already implemented the recommendation

#### 6. Documentation of the test to validate correct implementation

#### 7. Examples of Instances

IGSN is implemented within the Helmholtz association at AWI, GFZ, and Hereon through the FAIRWish Project [4]. See [3] for more information.

Another implementation is documented at the Kiel University (CAU) [6]

#### 8. Further Information

#### References

[1] Plankytė, Vaida, Macneil, Rory, & Chen, Xiaoli. (2023). Guiding principles for implementing persistent identification and metadata features on research tools to boost interoperability of research data and support sample management workflows. Zenodo. https://doi.org/10.5281/zenodo.8284206

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[2] Klump, J., Lehnert, K., Ulbricht, D., Devaraju, A., Elger, K., Fleischer, D., Ramdeen, S., Wyborn, L. (2021): Towards Globally Unique Identification of Physical Samples: Governance and Technical Implementation of the IGSN Global Sample Number. - Data Science Journal, 20, 1, 1-16., DOI: https://doi.org/10.5334/dsj-2021-033

[3] Baldewein, L., Kleeberg, U., Brauser, A., Elger, K., Frenzel, S., Heim, B., & Wieczorek, M. (2023). FAIR WISH D7 - Standard Operating Procedure for automatic IGSN registration. Zenodo. https://doi.org/10.5281/zenodo.10401380

#### [4] The FAIR Wish Project:

https://helmholtz-metadaten.de/de/inf-projects/fair-wish-fair-workflows-to-establish-igsn-for-samples-in-the-helmholtz-association

- [5] IGSN Documentation on forschungsdaten.org https://www.forschungsdaten.org/index.php/IGSN
- [6] IGSN Service and Documentation at the University Kiel https://igsn.uni-kiel.de/de

#### **Relevant Community Recommendations**

#### 9. History of this document

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