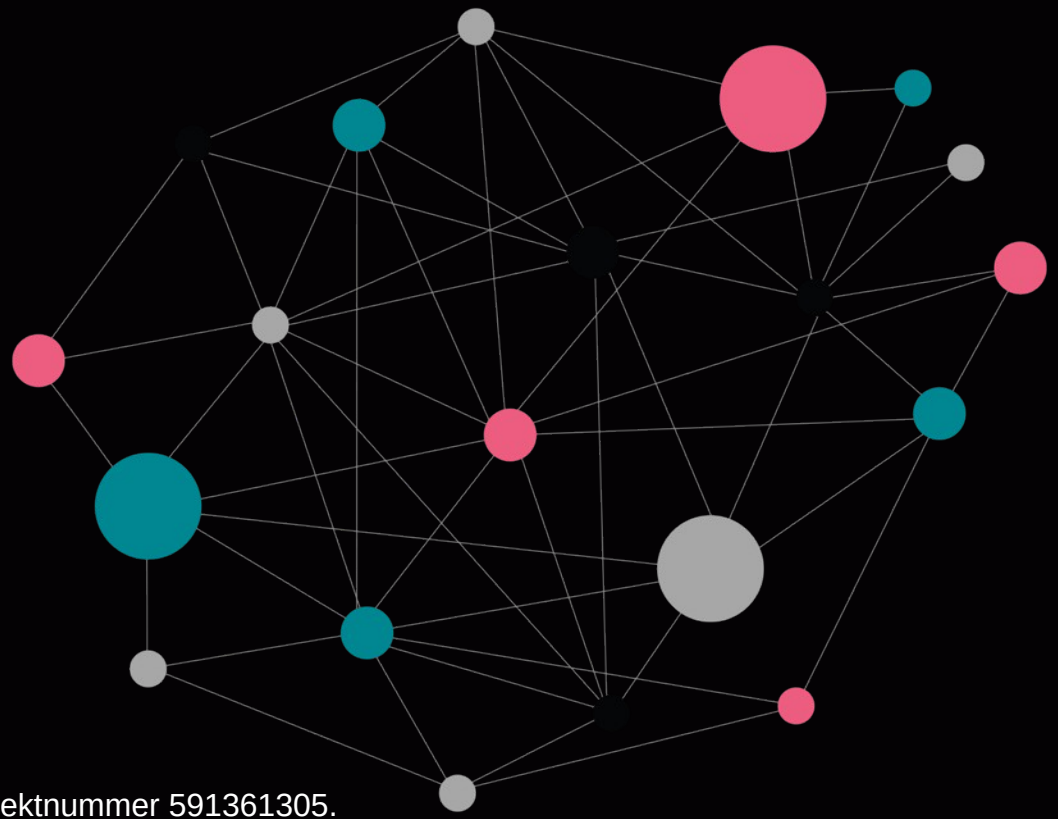
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EOSC Node Germany

A status update

Tim Wetzel
on behalf of the EOSC Node | Germany team



Ibergrid 2026, Santiago de Compostela

Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – Projektnummer 591361305.

What's behind the Node?

NFDI Assocation



The Vision:

„Data as a common good for excellent research, organised by science in Germany."

Services developed by and for all science areas.

Building up EOSC Node Germany

Project BENG (Building up EOSC Node Germany) –

funded by DFG [Funding Initiative to Secure Endangered Data Repositories and to Promote Data Resilience 2025 to 2027]

- Objective: To develop and deploy an initial version of EOSC Node Germany
- Scope: 11 project partners – 10 work packa
- Duration: August 2026 – December 2027
- Funding: approximately €2.8 million

Community Engagement within NFDI



BENG Project Work Packages

TA1	TA2	TA3	TA4
WP1-1 AAI	WP2-1 Service onboarding process	WP3-1 Policies, licensing, copyright, agreements	WP4-1 Technical & project management
WP1-2 Catalogues	WP2-2 Service enablement	WP3-2 Node governance & sustainability	WP4-2 Communication & community engagement
WP1-3 Further core capabilities & node arcitecture	UC1 Galaxy	WP3-3 Service Management System	
	UC2 Repository		
	UC3 NOMAD		
	UC4 Storage		

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Steps for the EOSC Node Germany to be in production

ID	Requirement	Status	Milestone
E.1	Node selected through the Tripartite enrolment process	P	
E.2	Node dedicated page published on eosc.eu	P	
E.3	Node project charter updated	P	
E.4	Observer delegates communicated to the BuG bodies	P	
E.5	Node Infrastructure Proxy in the AAI acceptance environment	P	
E.6	At least one use case from the project charter is documented	P	
P.1	EOSC Federation MoU signed	P	
P.2	Node Infrastructure Proxy in the AAI production environment	P	December 27
P.3	Node registered in the EEN Node Registry; at least on Catalogue published	P	March 27
P.4	Node Exchange resources available to EOSC end-users	P	September 27
P.5	Node helpdesk service in place	P	December 26
P.6	Node Cybersecurity Officer nominated and participating	P	
P.7	Node Landing Page compliant	P	October 26
P.8	*Node Service monitoring available*	P	
P.9	*Node Service Management System available*	P	December 27
P.10	Node formally declared to be in Production	P	January 28

Node Roles

Reach out to EOSC Node Germany

Node Coordinator/Deputy:
York Sure-Vetter/
Wilma Wolf





Operations
Manager/Deputy:
Ahmed Saleh/
Jos van Wezel



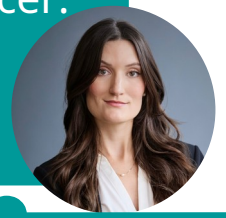


Cybersecurity Officer:
Philipp Wieder



Legal Officer:
Vasilka Paunova

Communications Officer:
Rebecca Kröhler



Node Contacts

Representatives of EOSC Node Germany in EOSC Federation Working Groups

Governance

Legal & Governance: Vasilka Paunova

Operations

Federated AAI liaison: Tim Wetzel



Handbook: York Sure-Vetter/ Wilma Wolf





Cybersecurity: Philipp Wieder



Helpdesk: Chaithra Gowda



Catalogues: Sonja Schimmler

Architecture & Federation Policies: Tibor Kalman



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NOMAD & Galaxy use case

Zenodo · Galaxy · NOMAD: an EOSC data-harmonization demonstrator

THE CHALLENGE

Open data is findable, but rarely interoperable

- Vendor-specific file formats
- Lab-specific metadata
- Software rarely shared

zenodo

OPEN REPOSITORY

Find openly licensed STM datasets (CC0, CC BY)

Galaxy PROJECT

COMPUTE · USEGALAXY.EU

Convert raw files to NeXus with pynxtools-spm

NOMAD

DATA PLATFORM

Publish searchable entries linked to the original DOI

*Connected only through **public APIs**: no shared infrastructure needed*

WEEKLY AUTOMATED PIPELINE

1 Find
Search Zenodo by technique and licence

2 Skip known
DOI + checksum: no file processed twice

3 Convert
Raw file → NeXus (NXstm) on Galaxy

4 Publish
Searchable NOMAD entry, linked to the DOI

5 Report
Log per dataset, PDF summary and email

FIRST SCOPE **STM · Nanonis .sxm · pynxtools-spm** next: more techniques through their pynxtools plugins NeXus

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NOMAD & Galaxy use case

One shared Galaxy toolset, two ways to run it, and a pattern others can reuse

TWO ENTRY POINTS, ONE SHARED TOOLSET

NOMAD-led
A NOMAD Action on an Oasis runs the weekly schedule

Galaxy-led
A small scheduler starts the Galaxy workflow

↓ ↓

Galaxy PROJECT

Shared Galaxy tools
download · ELN · NeXus conversion · validation · report

DESIGN PRINCIPLES

Incremental
Runs weekly; never processes a file twice

Provenance built in
Every entry links back to its Zenodo DOI

License-aware
Only CC0 / CC BY data, always attributed

Secure by design
API tokens never leave their own platform

OUTPUTS

Galaxy PROJECT
Public tools on usegalaxy.eu

NOMAD
Searchable NeXus entries in NOMAD

Reports per dataset and per run

WHY IT MATTERS

A reusable federation pattern: repository → compute → research data platform

Next: Further techniques (EM, APM, XPS …)

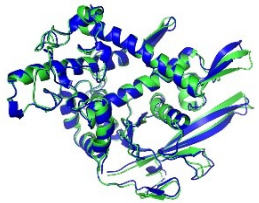
Open to partners: join with your data or tools

Photon and neutron impact on global challenges

Large scale facilities collecting valuable data

Society challenges

Health | Environment | Energy | Materials | Transport | Knowledge









Research domains

Medicine | Life Science | Physics | Chemistry | Engineering

Analytical methods

Neutrons | X-rays

DAPHNE 4NFDI

Chemical analysis | Imaging | Tomography | Optical imaging | Electron imaging

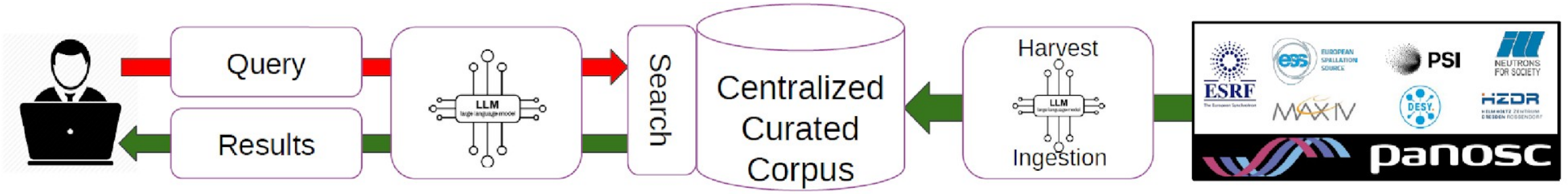
Diffraction | Spectroscopy

Simulation | Many others

Linked to Photon and Neutron (PaN) -Finder

Making photon and neutron data easy to find

- Coordinate and integrate data catalogues across photon and neutron facilities.
- AI-driven data discovery platform built upon previous work of PaNOSC (Photon and Neutron Open Science Cloud)
- Single access point to open data
- Linked to the PaNOSC Node



PaN Finder PI: Massimiliano Novelli (ESS)

OSCARS
Open Science Clusters' Action for Research & Society

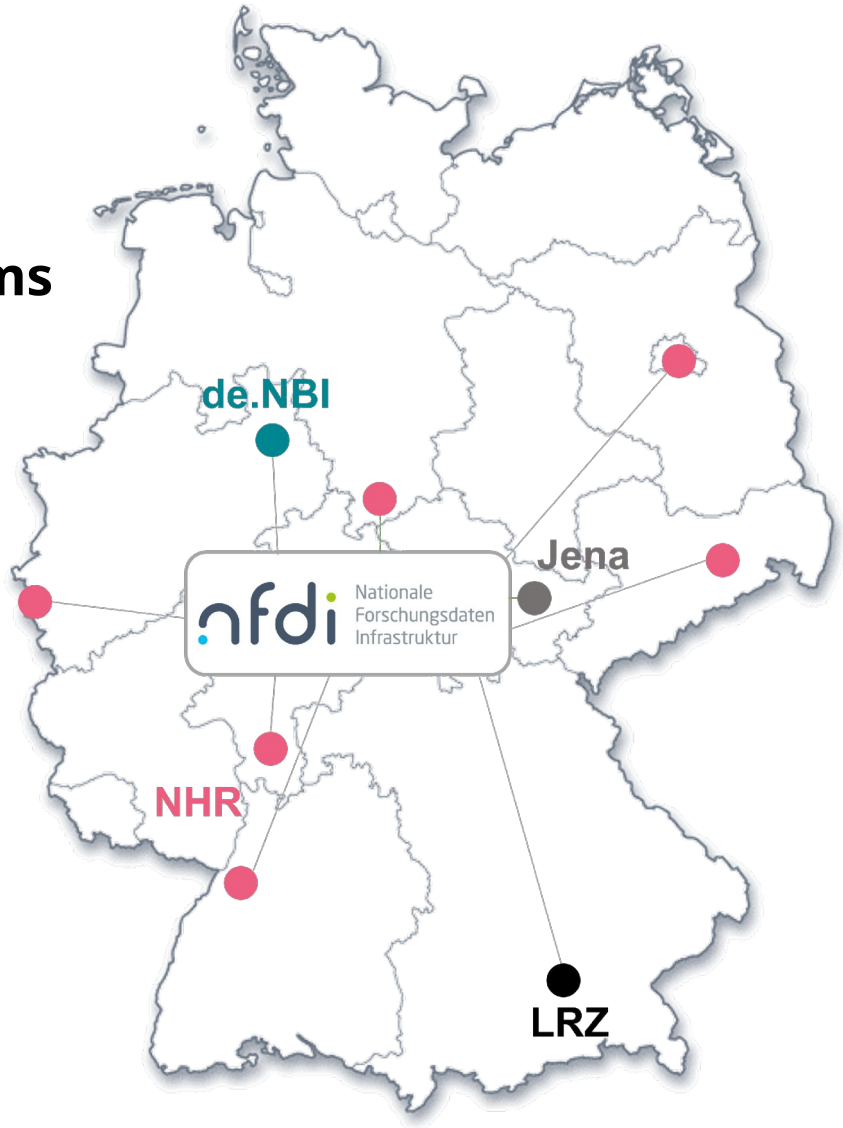
Storage Federation Use Case

We are in the **build-up phase of storage systems** (high-capacity hardware) for the NFDI

National effort to

connect HPC & storage providers to NFDI

to provide generic capability of storage to build higher level **RDM services**



Storage Federation: Our Aims

1



READY

Storage is available as a **federated S3 storage** capability for services of EOSC Node Germany

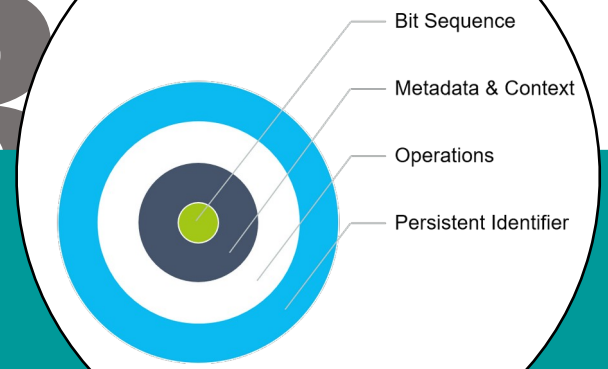
2

IAM4nfdi

ACCESS

Secure Storage Access managed via IAM4NFDI providing access within EOSC Federation

3

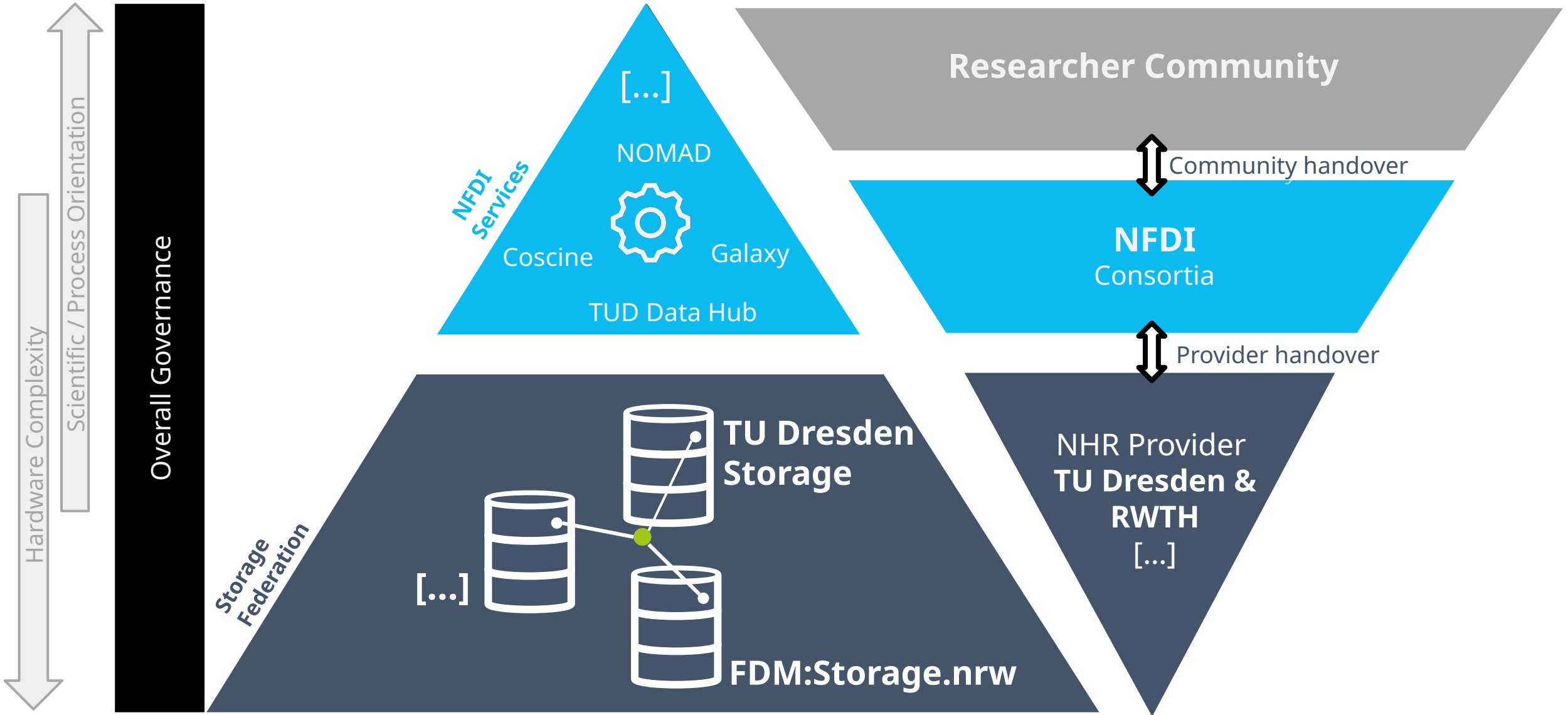


FAIR

Storage for services with **federated interoperability** e.g. using the FAIR Digital Object concept

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Architecture: Handover Model for NFDI Storage

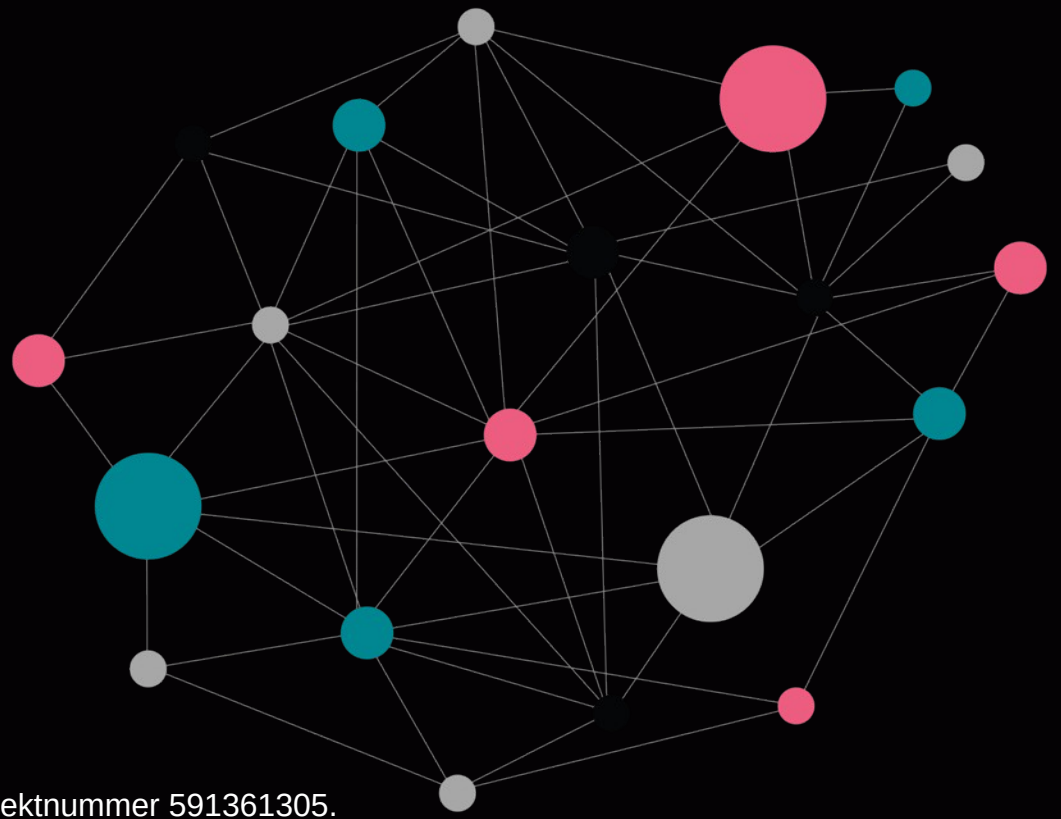


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EOSC Node Germany

Questions?

Contact: tim.wetzel@desy.de



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