

Base4NFDI: cross-domain base services for the German research community

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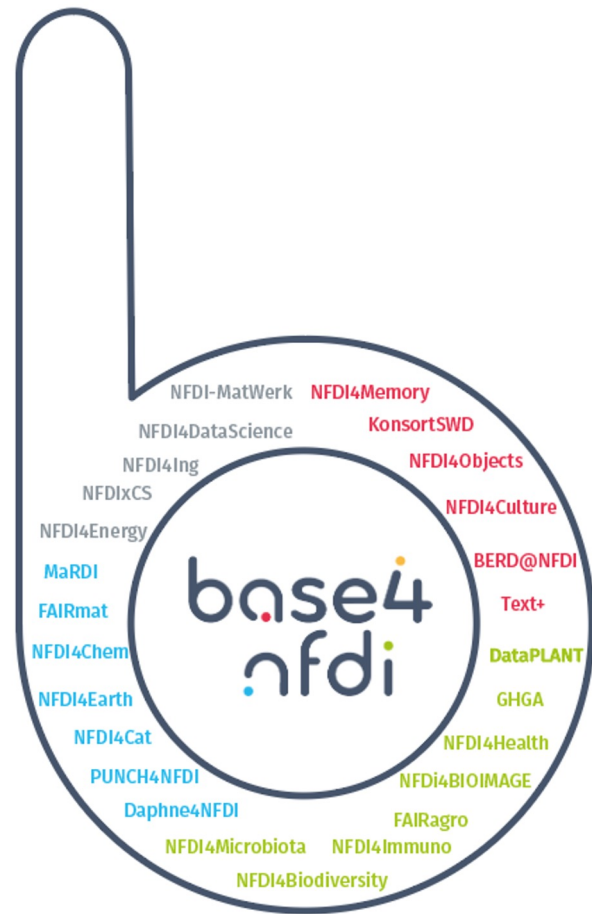
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FAIR practices for FAIR Dataspaces in the German research
community | 24.01.2023 | EOSC FAIR-IMPACT

What is Base4NFDI?

Our definition and goals

- Base4NFDI is the joint initiative of [all 26](#) consortia.
- Our goal is to establish [reliable](#) basic services for [FAIR](#) research data management.
- Basic services will be ...
 - [easily usable](#) for as many consortia as possible,
 - [interoperable](#) with international standards and services (e.g. EOSC) and
 - utilising [synergies](#) between [existing solutions](#).



Mission & Potentials

Translate needs & topics into basic services



Base4NFDI provides the framework for ...

- defining **potential** basic services
- user-driven **requirements** analysis
- **stepwise** development for integrating and ramping-up basic service candidates
- setting up **NFDI-wide** basic service **portfolio**
- monitoring and **evaluation**
- transparent allocation of **flexible** funding
- **consensus** building

What is a Basic Service?



A technical-organisational solution
that typically offers ...

 storage and computing services

 software, processes and

 workflows

3. support for service desks

... with different levels of technicity!




A basic service ideally ...

 creates added value for all users

 bundles existing services

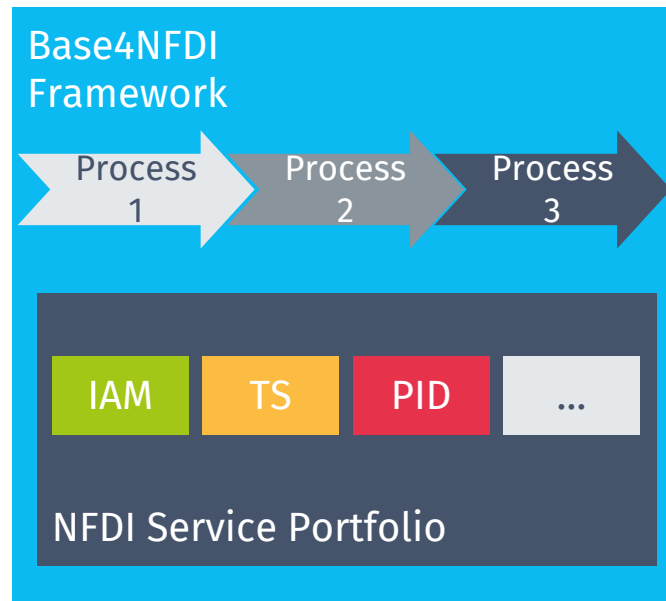
 considers sustainable systems

 is time- and usage-effective with trackable KPIs

Mission & Potentials

Key Deliverables

- **Framework** for user-driven and quality-assured basic service development
- **Agile process** to establish a NFDI-wide basic service portfolio
- **Establish basic services** starting with:
 - Identity and Access Management Service (**IAM**)
 - Terminology Services (**TS**)
 - Persistent Identifier Service (**PID**)
- **Building** on **existing solutions** that are interoperable with the **EOSC** and follow its guidelines



Funded Projects (so far)

IAM4NFDI - Identity and Access Management

IAM



- Some consortia/communities **without any** solution for identity and access management
- Other communities with **established** but **different** systems (DFN-AAI, DARIAH-AAI, Life-Sciences-AAI)
- NFDI-wide solution needs to **integrate** with **EOSC** solutions
- **Federation** and **long-term** operation as an organisational and technological challenge

Funded Projects (so far)

PID4NFDI - Persistent Identifier Service

PID



- Different consortia have **different levels of maturity** in PID implementation
- PIDs as central component for **FAIR RDM**
- Provision of a PID service
- **NFDI-wide PID strategy**
- Close **collaboration** with *PID Network Deutschland*

Funded Projects (so far)

TS4NFDI - Terminology Services

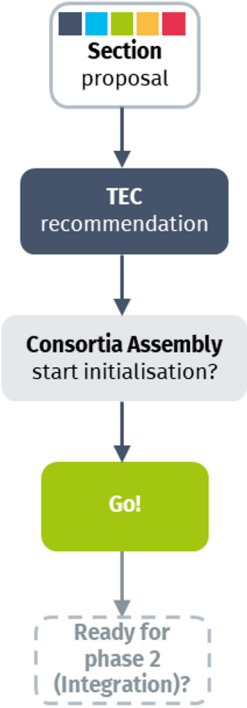
TS



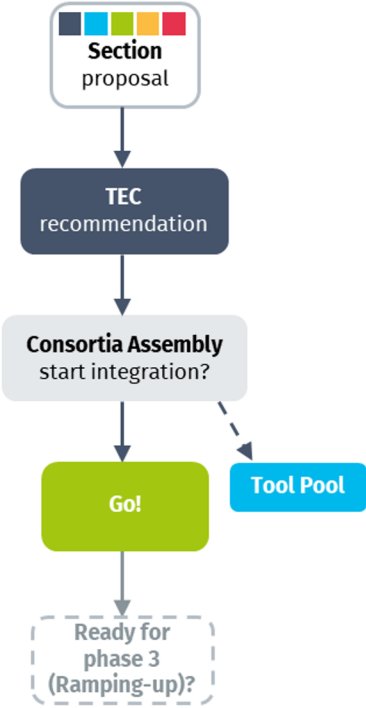
- Terminologies are often **discipline specific**
- **Cross-domain** service for the provision, curation, development, harmonisation and mapping of terminologies
- **Integration and convergence** of individual solutions

Decision making process for each phase

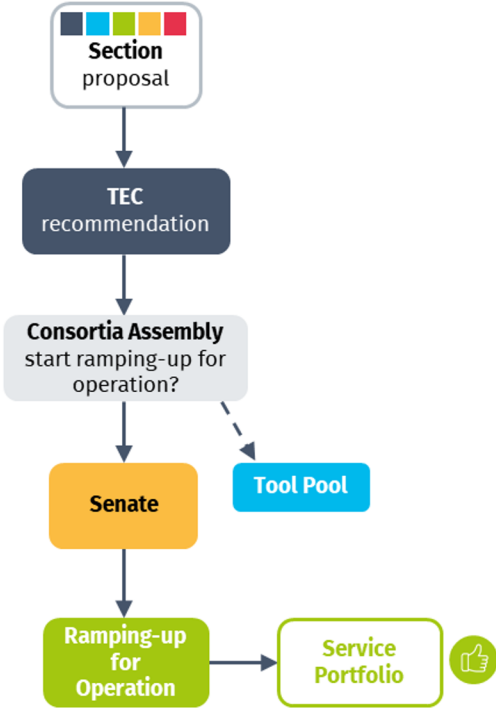
① Initialisation



② Integration



③ Ramping-up for Operation



All basic services pass 3 phases

Base4NFDI's Criteria for Developing Services across 3 Phases

Initialisation
~1 yr



25%



TRL 3-4



Concept



SWOT

Integration
~2yr



50%



TRL 5-6



Calculation



Interop.



Internat.
integration

Ramping-up
~2yr



75%



TRL 7-8



Sustainable



-> TRL 9

Base4NFDI

manage complexities of integrating and adapting services

- **Section Liaison Officers** directly **support the work of the Sections** in matters directly related to preparing basic services development strategies, decisions and monitoring (TA3)
- **Service Stewards** will **support the service development** process through all stages of the development (TA1 and TA2). They will ensure a smooth interplay between the Sections, participating consortia and partner organisations involved in the development of a service.



Base4NFDI - Service Stewards

manage complexities of integrating and adapting services



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Federated access
IAM4NFDI



**Semantic interoperability and
reusability**



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Federated storage/ compute-
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IAM4NFDI/TS4NFDI



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Data literacy, data
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**Data protection &
anonymisation**

Thank You! Questions?

<https://base4nfdi.de/>

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