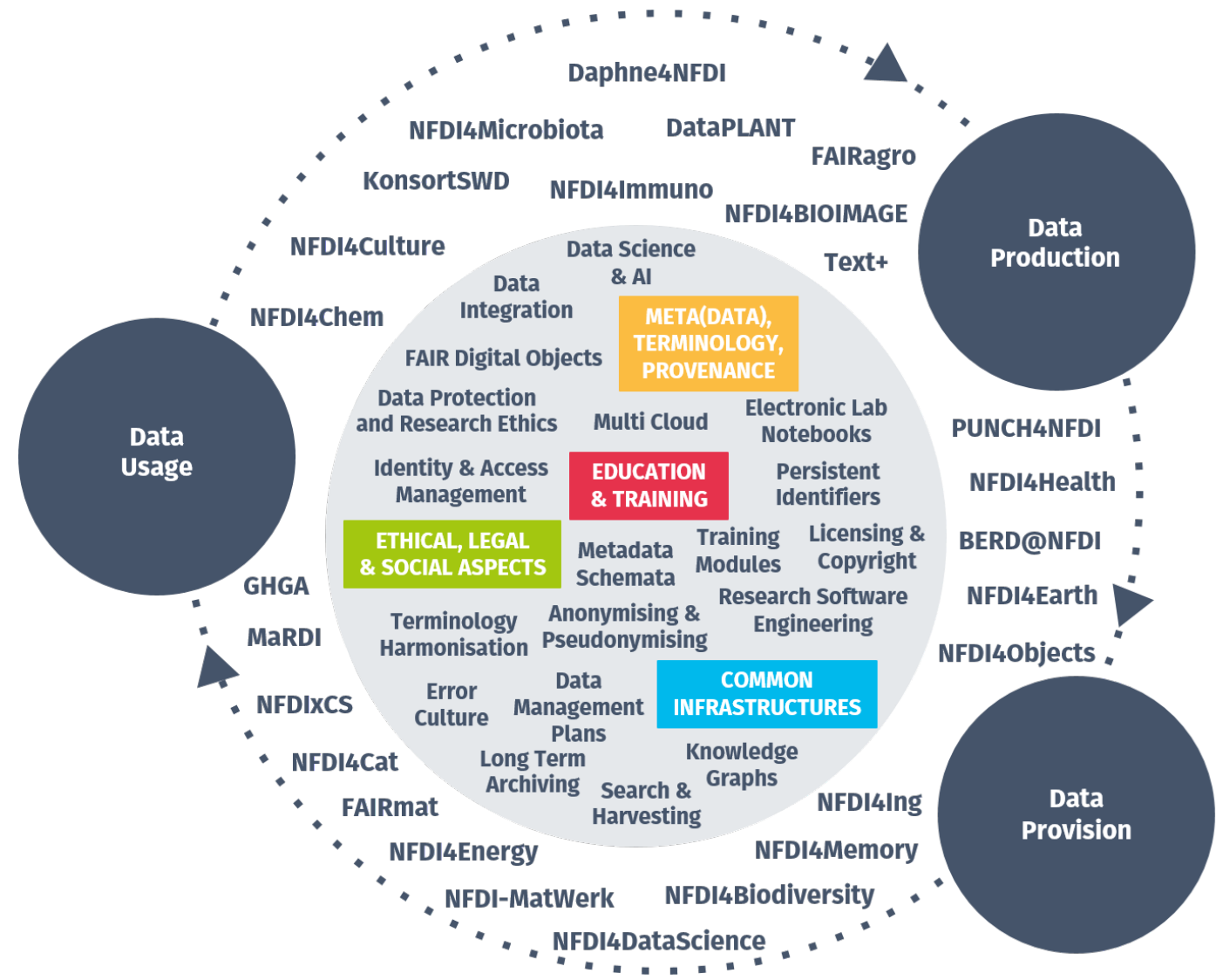# Base4NFDI
The way towards common Basic Services in the NFDI

Lars Bernard
NFDI4EarthPlenary 2023-06-02

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Contents

Base4NFDI - Who we are

9/2019 ——————○   ○—— 4/2022

Berlin Declaration on
NFDI Cross-Cutting Topics

NFDI Consortia build Base4NFDI
and delivers NFDI-wide Basic Services

KonsortSWD   NFDI4Ing
                        PUNCH4NFDI
GHGA   NFDI4Chem   NFDI4BIOIMAGE
                 Daphne4NFDI   Text+
                                                  NFDIxCS
NFDI4Culture   First and Second-round   Third-round Consortia
                 Consortia   Initiatives
NFDI4Cat   BERD@NFDI
                                                  NFDI4Memory
            NFDI4Health   FAIRmat   MaRDI   NFDI4Objects
                 NFDI4Earth   FAIRagro
NFDI4Biodiversity   NFDI4DataScience
                                           NFDI4Energy   NFDI4Immuno
       DataPLANT   NFDI-MatWerk
                        NFDI4Microbiota

19 Consortia + **7**(+6) Consortia Initiatives + **DFN** = **1** proposal

base4nfdi   NFDI and Base4NFDI

Base4NFDI - Basic Services across NFDI consortia

- The 26 NFDI Consortia represent their **specific domains** and their **infrastructural expertise** including **domain-specific basic-services**

- **Interoperability** and **cost-efficiency** in NFDI however, requires NFDI-wide basic services
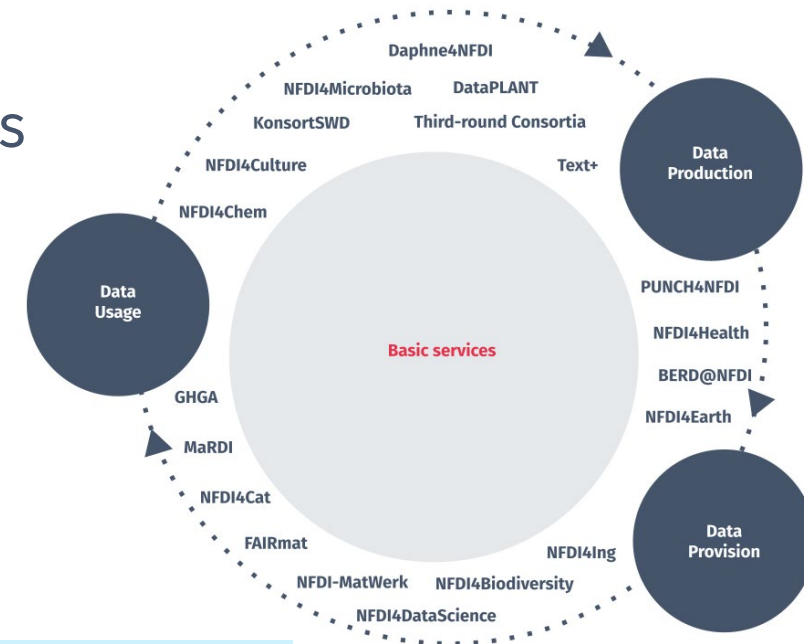
A service is a technical-organisational solution, which typically includes storage and computing services, software, processes and workflows, as well as the necessary personnel support for different service desks.

What Base4NFDI will do
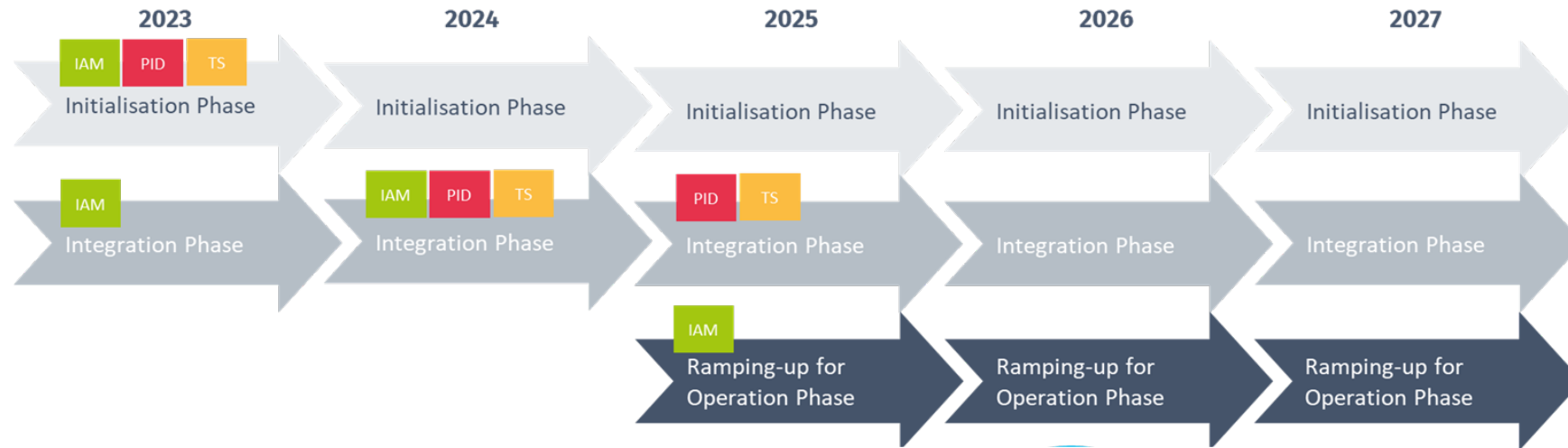## Translate needs & topics in basic services

Base4NFDI provides the **NFDI-embedded framework** for

- user-driven requirements analysis and defining potential basic services **within NFDI Sections**

- **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

How Base4NFDI will deliver
(03/2023-03/2028 with a total of 24.5 Mio.€ Funding)

| 2023	2024	2025	2026	2027
IAM PID TS				
Initialisation Phase	Initialisation Phase	Initialisation Phase	Initialisation Phase	Initialisation Phase
IAM	IAM PID TS	PID TS		
Integration Phase	Integration Phase	Integration Phase	Integration Phase	Integration Phase
		IAM		
		Ramping-up for Operation Phase	Ramping-up for Operation Phase	Ramping-up for Operation Phase

Service Stewards
Section Liaison
Officers

- **Flexible Funds** allow to adapt to organisational/technical dynamics and technical complexities
- Will enable development and roll-out of substantial number of services
- Will help to ensure integration in diverse existing landscapes by supporting adoption

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How Base4NFDI will decide
Tightly embedded in the NFDI Association

- Each development step is subject to evaluation and joint agreement on next steps

- Proposals are initiated and coordinated by NFDI Sections

- Proposals are evaluated by **Technical Expert Committee (TEC)**, Consortia Assembly and Scientific Senate
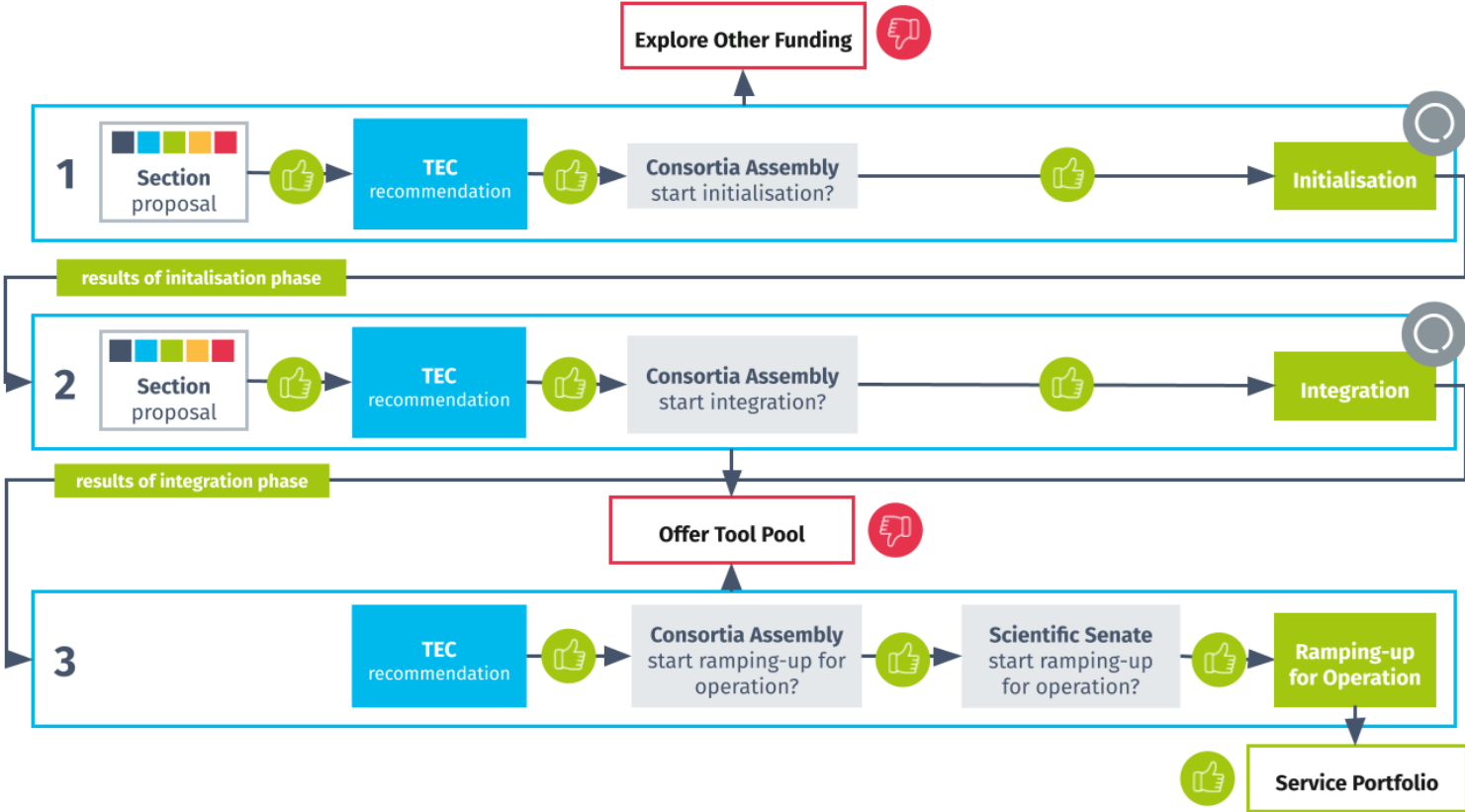
How to Apply and Current Proposals

- **Where we come from and Overall Concept**
- **How to Apply and Current Proposals**

Base4NFDI
Who can apply, how, and for how much?

WHO

- A lead institution and further participating institutions
- All institutions need to be (or have a route to become) members of a DFG-funded **consortium**

HOW

- A **template** for applications and an overview about criteria is available through https://base4nfdi.de/

€

- Funds will be allocated based on "**building blocks**" per phase
- Using these building blocks proposals need to **specify** how many or which share of a building block they request

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Base4NFDI looking Forward
Dates for 2023
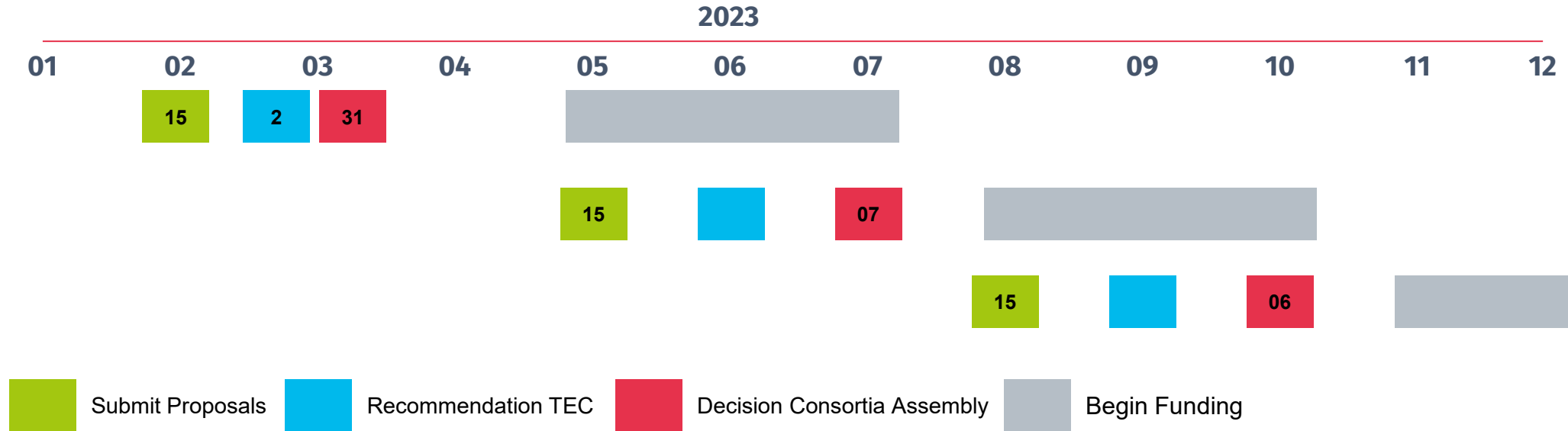
- Three Base4NFDI Calls in 2023 and further calls in 2024/25 - **no need to rush!!**
- All potential services first submit **proposals** for the initialization phase
- The **Technical Expert Committee** will be completed in January 2023
- Binding decisions on funding to be made by the **consortia assembly**

Proposals
from 1st Call **(1 proposal selected for funding)**

1. **IAM4NFDI - Basic Service "Identity and Access Management"**
   IAM4NFDI will establish and provide a state-of-the-art AAI, that fosters cross-consortial and international collaboration. This NFDI Community AAI will be connected to the national identity federation DFN-AAI.

2. DMP4NFDI - NFDI Basic Service for Data Management Plans

3. Harvesting and Findability Enhancing Services – HaDES

4. Knowledge Graph Infrastructure - KGI

5. PID4NFDI - Persistent Identifier Services

6. Terminology Services 4NFDI - TS4NFDI

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Current Proposals
from 2nd Call

1. **PID4NFDI - Persistent Identifier Services**

   Will build an NFDI foundation service on established PID infrastructures. PID4NFDI will follow a clear path of promoting the uptake by PID infrastructures and service providers and will only develop and operate NFDI - specific services if necessary.

2. **Terminology Services 4NFDI - TS4NFDI**

   Will provide a federated architecture of TS components and enable interoperability across disciplines to foster alignment of terminologies to build common knowledge representation and knowledge engineering framework across NFDI communities.

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Potential Topics for Proposals from / in close cooperation with NFDI4Earth
Food for Discussion !

- Georeferencing/Geobase-Data

- User Support Network

- Long-Time-Archiving

- Collaborative Compute-
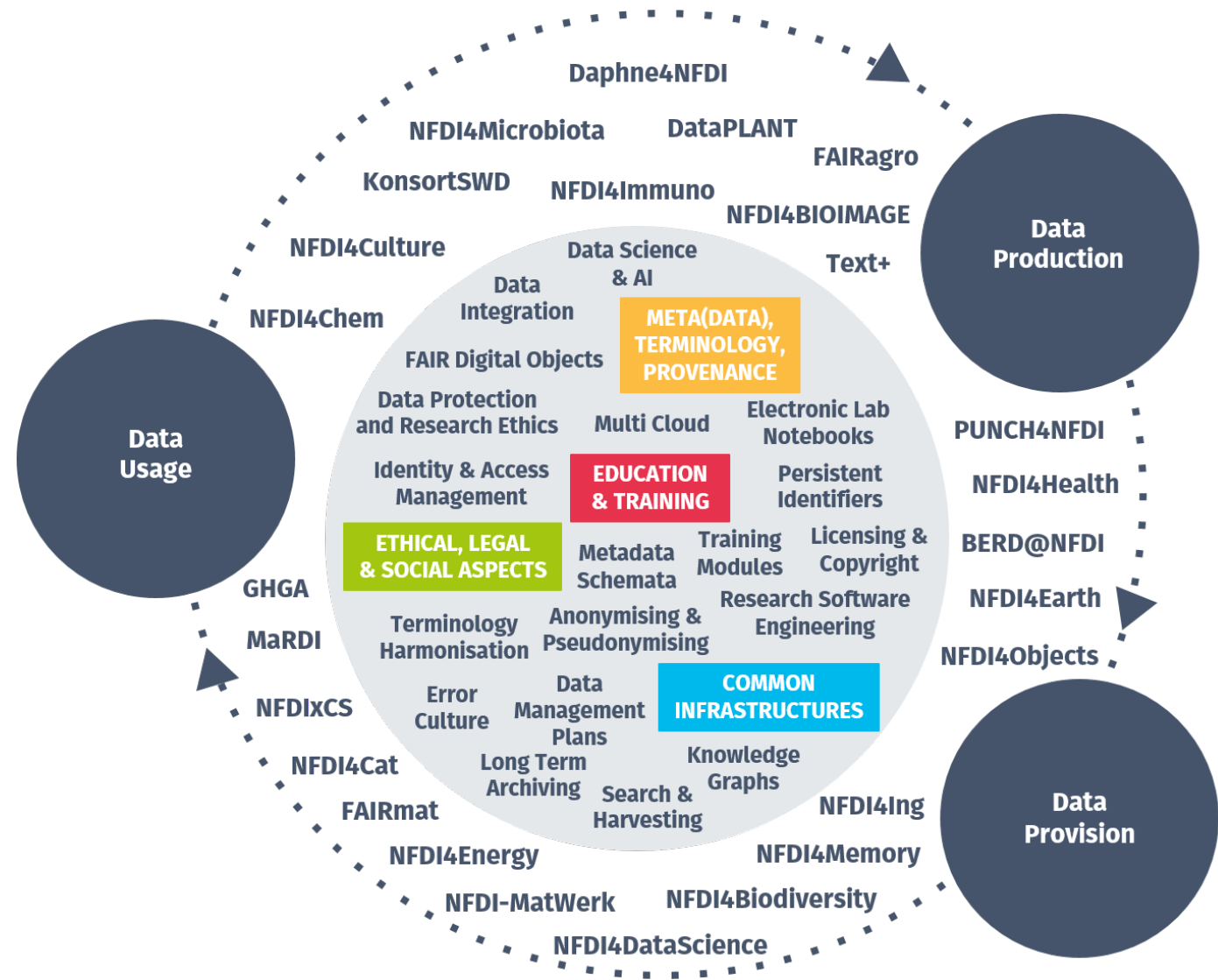 and Analysis-Environments

- …

Criteria for Initialization-Phase

Approval by 25% of consortia

Technology Readiness Level 3-4

SWOT Analysis

Concept for implementation

see *base4nfdi.de* for details and other phases

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Thank You !
Questions?

Lars Bernard
https://base4nfdi.de/

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What Base4NFDI will do
Identifying researchers' needs

- **Sections of the NFDI Association** are the places to **identify cross-cutting needs** of consortia

- Combine **infrastructural & technological expertise** and **domain knowledge**

- **Provide expertise, blueprints, and resources** for development processes

- Act as **incubators for continuously identifying potential basic services**