KGI4 nfdi

base4 nfdi — Basic Services for NFDI

Knowledge Graph Infrastructure for the
German National Research Data Infrastructure

**Initialisation Phase** → Integration Phase → Ramp-up Phase
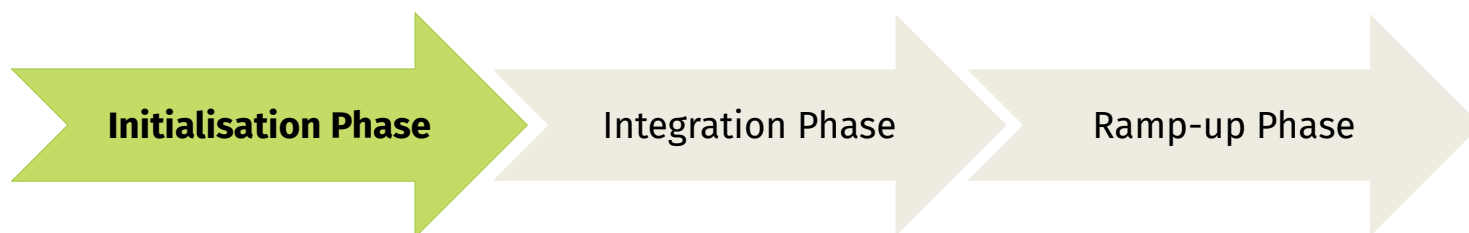
Vision

- Establish a **central, reusable Knowledge Graph Infrastructure (KGI)** to improve interoperability within the research domain
- Provide essential components like a **knowledge graph registry** and services for accessing knowledge graphs across projects
- Empower research communities to create **decentralized knowledge graphs** using standardized methods and technologies
- Support optimised **knowledge graph creation** and foster **ontology harmonization** to support FAIR data principles and international initiatives like the European Open Science Cloud (EOSC)

Work Packages in Initialisation Phase
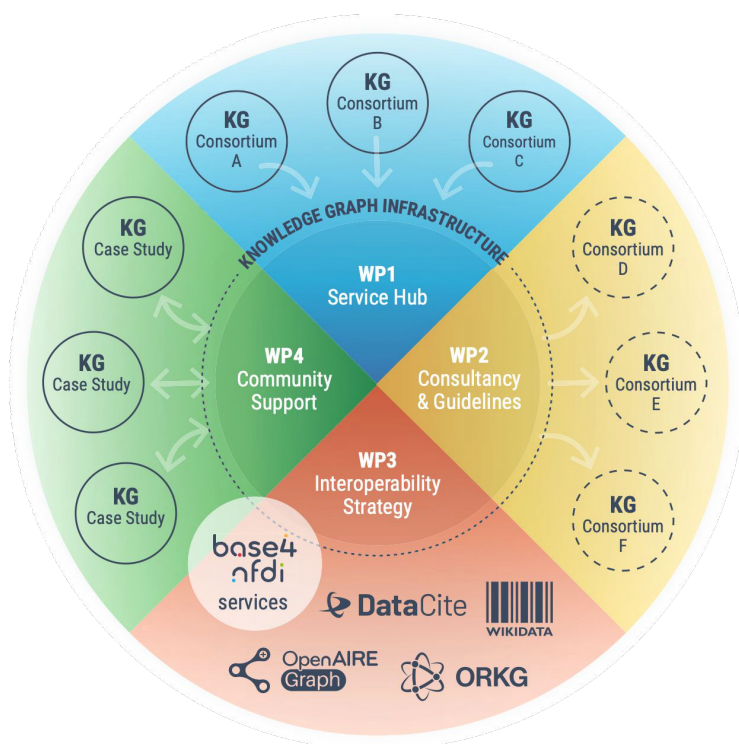
KGI Service Hub
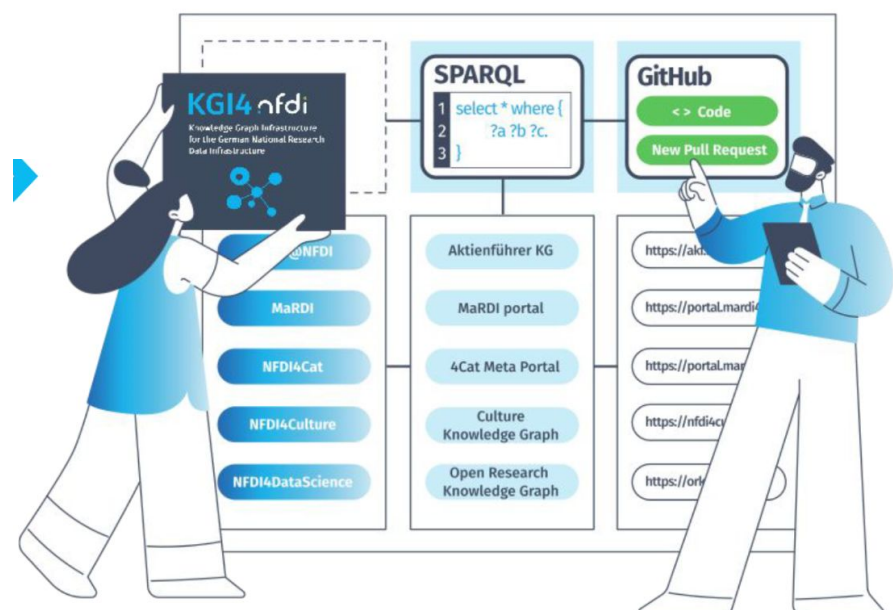
Persona Impressions

I just started my **postdoc in bioinformatics** a year ago. When searching for knowledge graphs in bioinformatics, I often struggle to find a central place to explore what is available. Plus, formulating the right query is frustrating when I am unsure what to ask. A knowledge graph service point helps by providing a clear registry of existing KGs and intuitive tools to guide my queries, making it easier to access and use the information I need.

I am a junior **research software engineer**. At my institute, I work with researchers from different disciplines who need better ways to structure and connect their data. I am developing a new workflow to help them integrate complex datasets, and a knowledge graph could be the perfect solution. But choosing the right KG technology is overwhelming without a clear comparison of tools. A knowledge base explaining the strengths and weaknesses of different options and providing solid documentation would help – otherwise, setting up the right system becomes frustrating and slows down development.