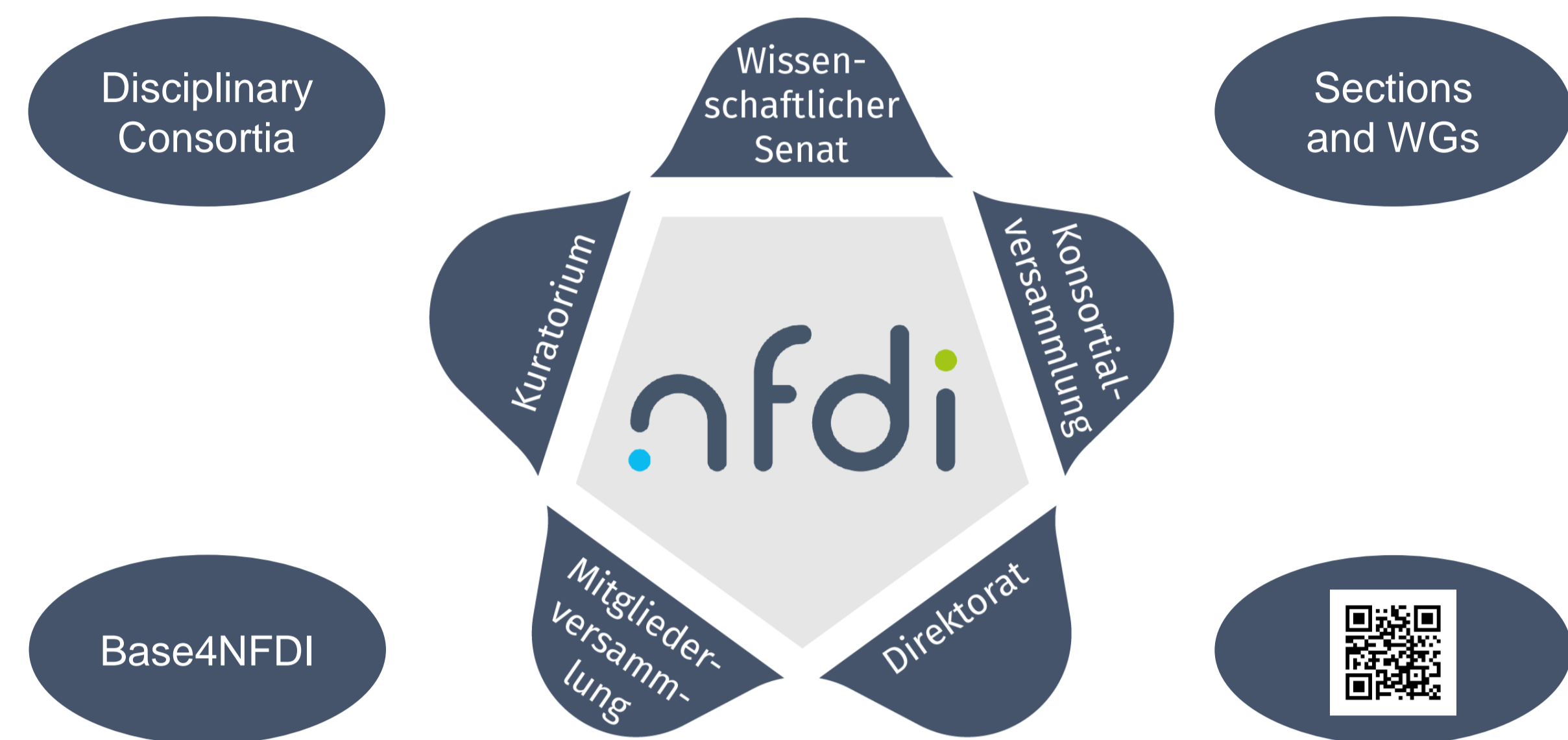


Research Software and RS Engineering in the NFDI

Bernd Flemisch, University of Stuttgart
Martin Hammitzsch, GFZ German Research Centre for Geosciences

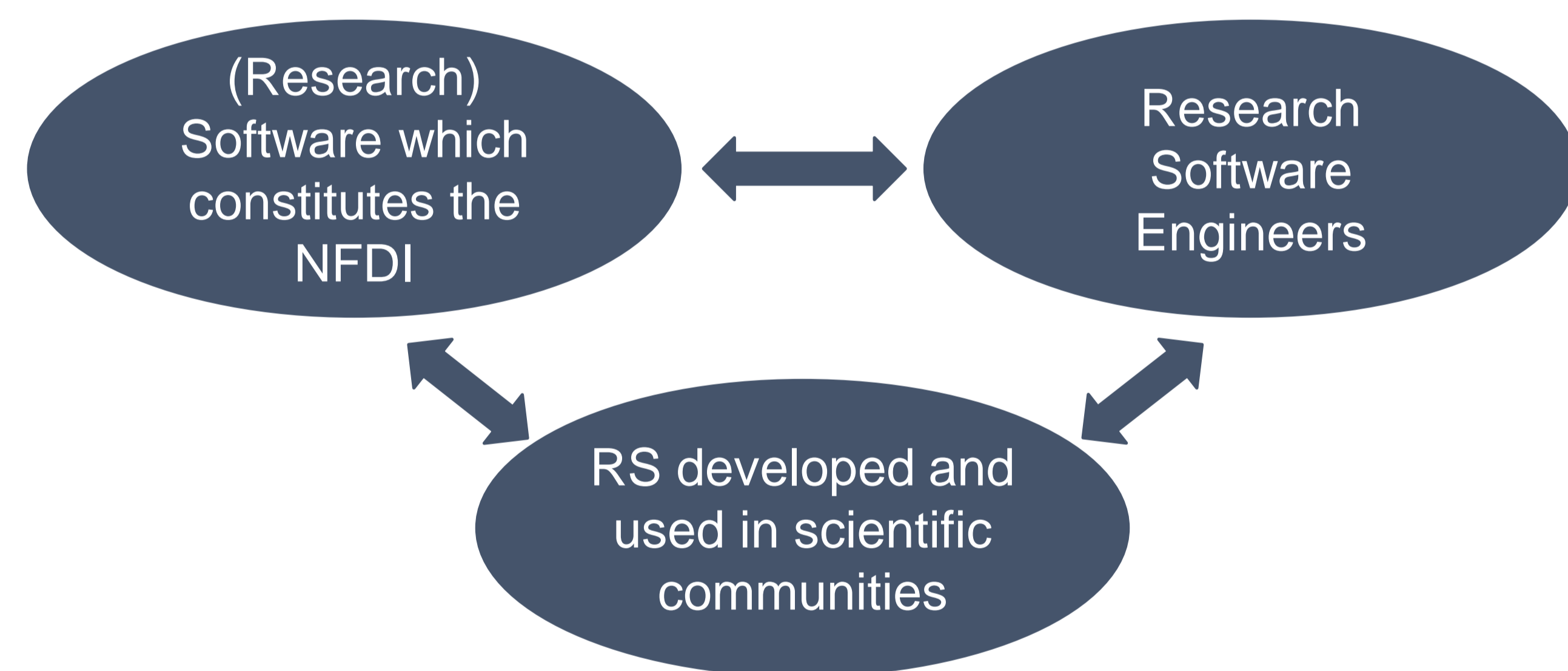
What is the NFDI?

Mission: Research data are systematically accessed, networked and made usable in a sustainable and qualitative manner for the entire German science system.

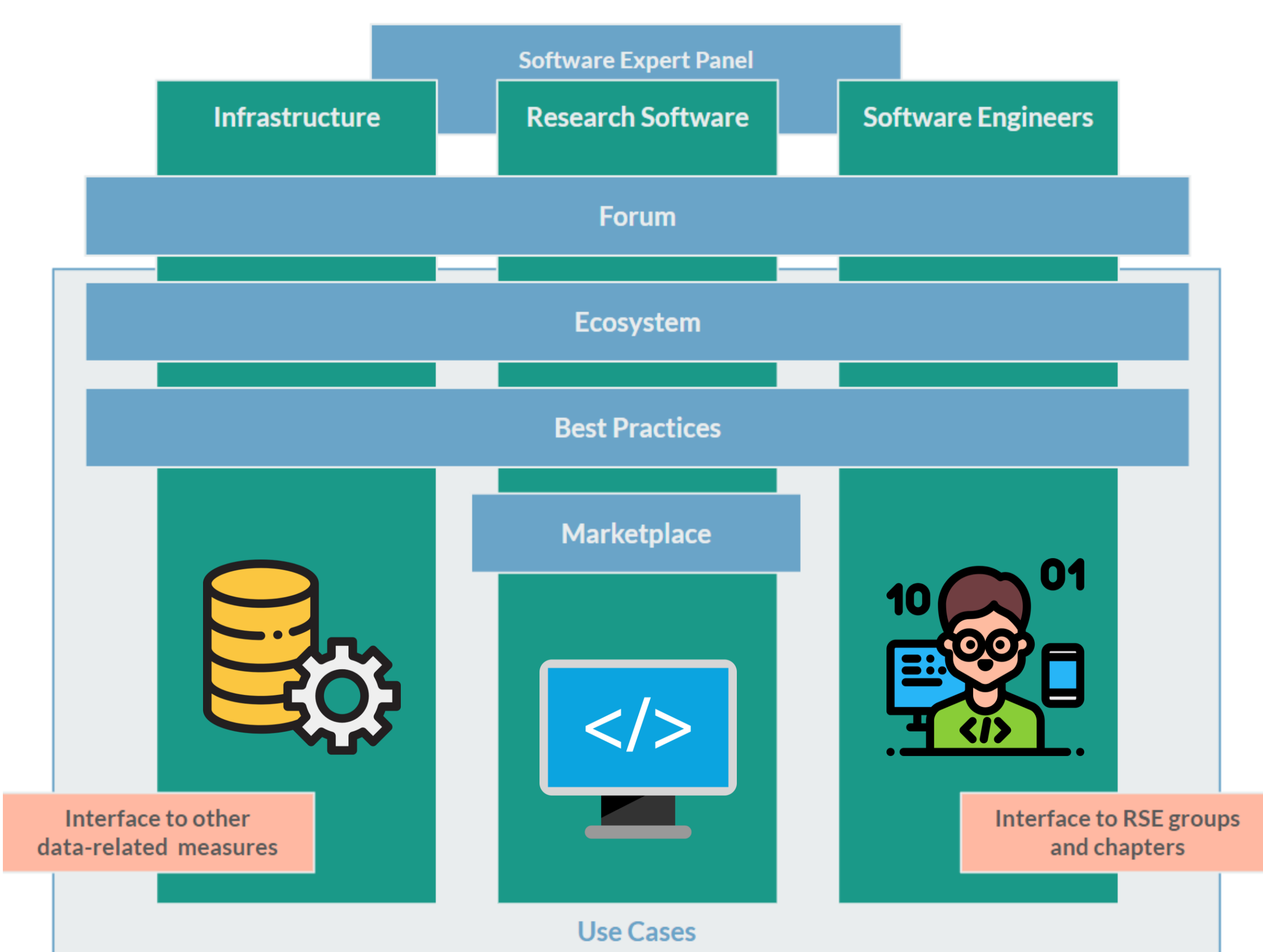


- **NFDI e.V.** coordinates the activities for establishing a national research data infrastructure.
- **Disciplinary Consortia** advance the NFDI for specific scientific disciplines, funded for up to ten years.
- **Sections and WGs** are dedicated to overarching topics which are worked on across the disciplinary consortia.
- **Base4NFDI** establishes a NFDI-wide basic service portfolio, starting from March 2023.

Research Software in the NFDI



The Working Group Infra-RSEng



- **Goal:** Brings the NFDI consortia together in all software-related aspects.
- **Working mode:** Small subgroups work on individual tasks, monthly WG-wide coordination meetings.

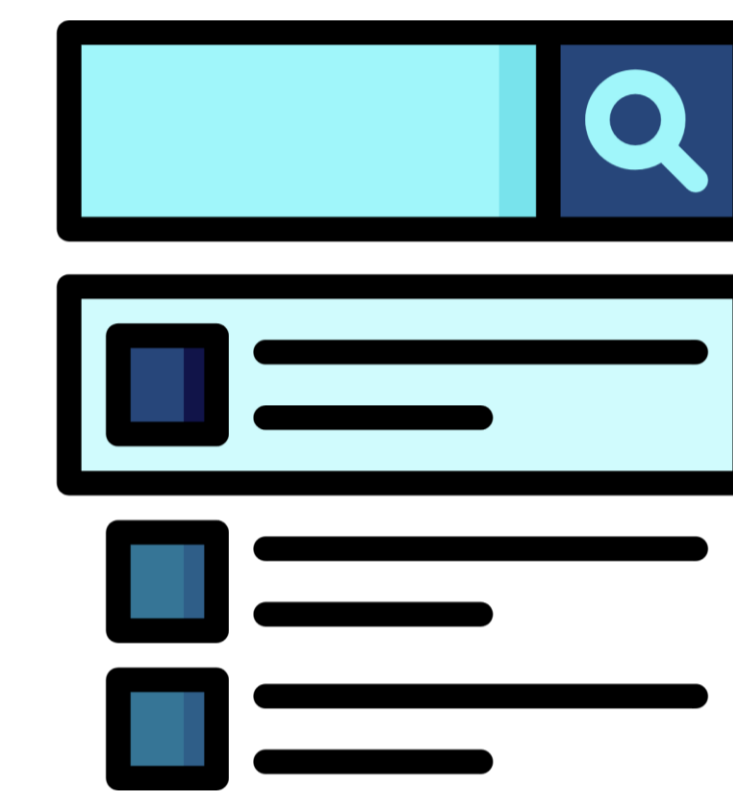
Task “Jupyter Services”

- Bring together the **JupyterHub providers** in Germany.
- Collect and **list available hubs** at a common web site.
- Evaluate the possibility for a **NFDI-wide Jupyter service**.
- Will be substantiated in a proposal to **Base4NFDI**.



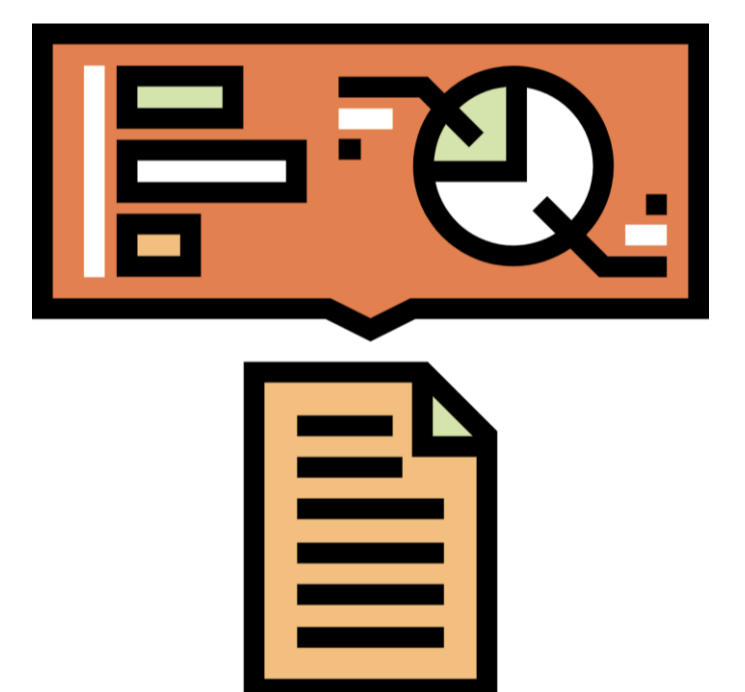
Task “Software Marketplace”

- Allow **accessing the portfolio** of research software brought together in the NFDI.
- Develop a **concept** for the Marketplace.
- Take into account **requirements** from the consortia and **available solutions**.
- Will be substantiated in a proposal to **Base4NFDI**.



Task “Status Quo Survey and Report”


- Produce a **report on the status quo** in the NFDI concerning research software and software engineering.
- To assess the status quo, **collect existing surveys** at one place and simplify the access to them.
- Develop **metric categories** to connect with the Marketplace.



Further Tasks

- **Training Materials:** Create recommendations to spread good practices using available content.
- **Mission Statement:** Develop a common mission statement "Software Engineering in the NFDI".
- **Overarching initiatives:** Ensure connectivity and compatibility with European and international efforts.
- **Software Ecosystem:** Develop a draft strategy for establishing a software ecosystem within the NFDI.
- **Use Cases:** Identify use cases for a cross-consortium, prototypical development of the software ecosystem.
- **Quality Criteria for Research Software:** Identify and develop suitable, in particular easy-to-record, indicators.
- **Criteria for NFDI Components:** Ensure reliability, compatibility and security; provide checklists and a test suite.

References

 M. Hammitzsch, C. Busse, B. Flemisch, K. Förstner, T. Kalman, F. Löffler, M. Politze, D. Riehle (2022). Concept for Setting up a Working Group Research Software Engineering in the NFDI Section Common Infrastructures.

Your opinions, participation and contributions are most welcome!

