

# Smart Data Innovation Lab (SDIL)

## Accelerating Data driven Innovation

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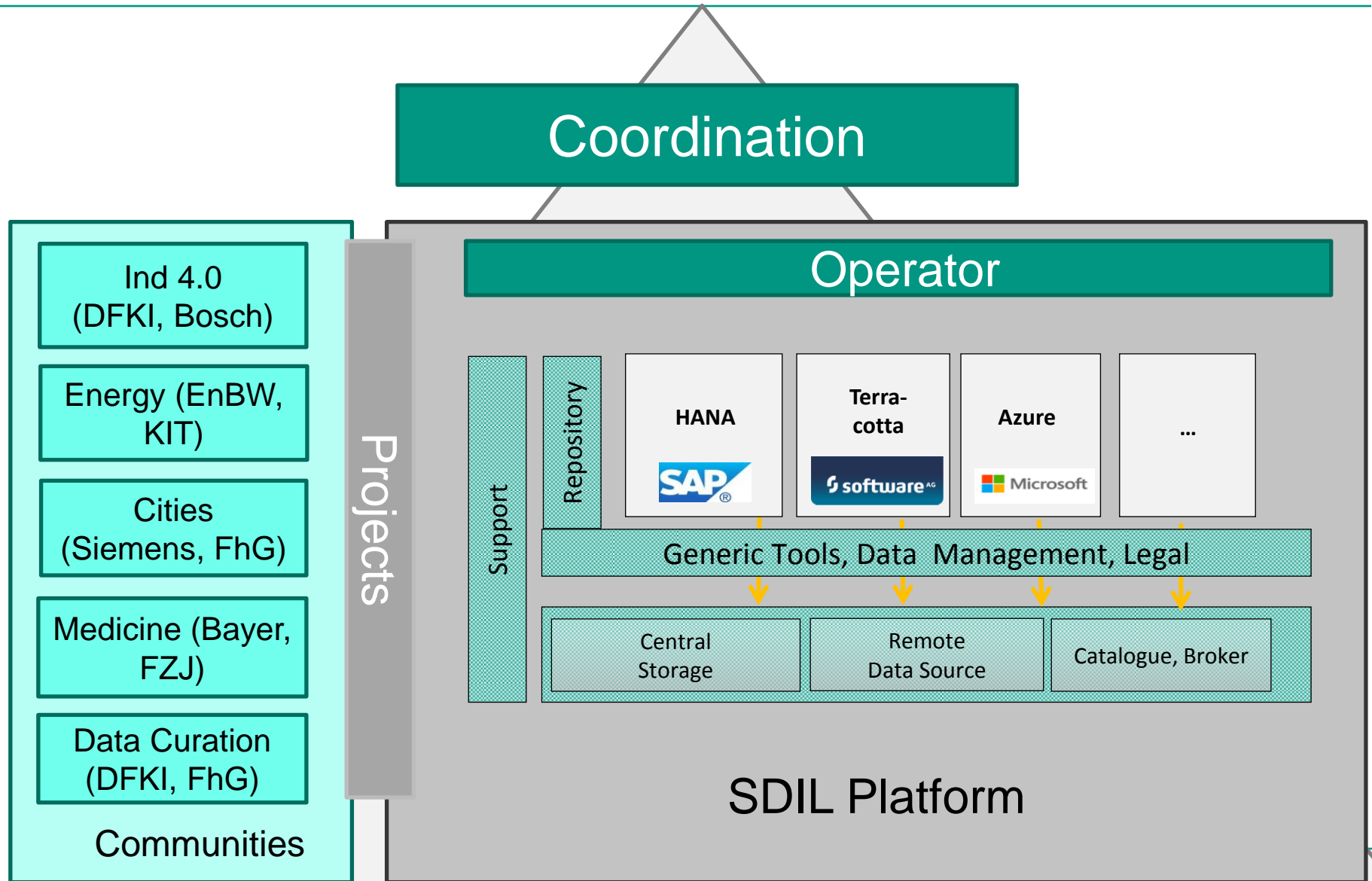


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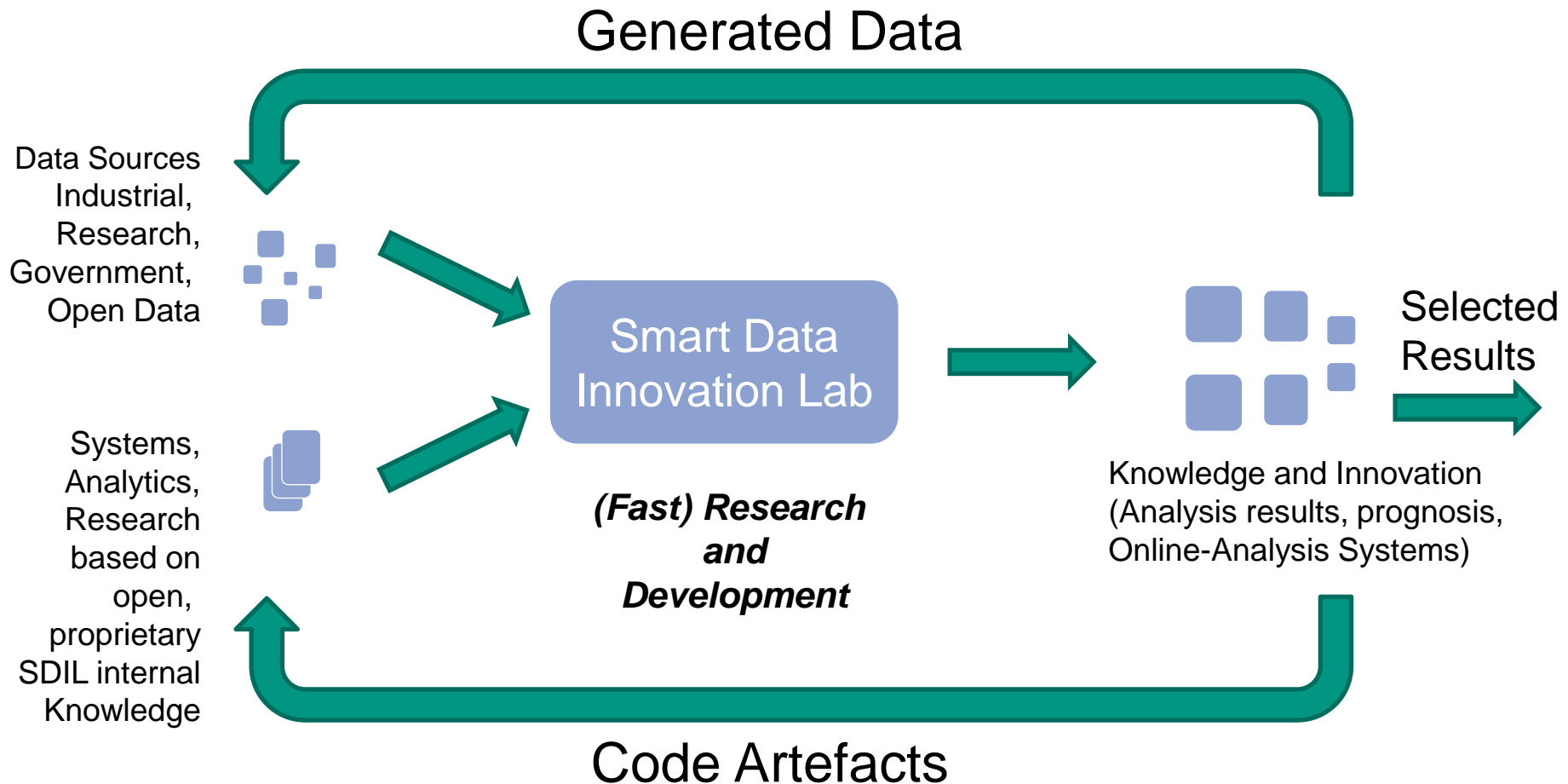
- Activity of **working group 6** (Education and Research) of the **German Government**
- Announced **January, 2014** (Operation Centre: KIT)
- **Structure**: Operation + Research & Innovation in High-Speed Big Data (with semantics, security & trust) aka Smart Data
- Topics = Data Communities are selected to start
  - **Industry (4.0), Energy, Smart Cities, Medicine**
- Core Members bound by contract
  - Operation & Community Members: Karlsruhe Institute of Technology (KIT), Microsoft, SAP, Software AG
  - Operators: Hitachi Data Systems
  - Community Members: Bayer, Bosch, Energy Baden-Württemberg (EnBW), Forschungszentrum Jülich, Fraunhofer, German Research Centre for Artificial Intelligence (DFKI), Siemens

# SDIL Goals

- **A Smart Data Centre and a Smart Data Community**
- **Prompt Co-Working** on valuable Problems with valuable „Big Data“ → Requires Structure (SDIL Orga) and Trust (SDIL Contract)
- **Knowledge Transfer** from Research to Industry and vice versa
- **Exploration** of
  - Smart Data Potential / Innovation Potential
  - Best Practice and Standards
- **Research** in
  - Analytics, Systems, Application Domain specific
  - Smart Data Tools, Support, Management, Privacy, Legal and Curation
  - HCI and Usability
- **First focus: short term high impact projects**



# Research and Innovation Cycle



# SDIL Project Phases

## Phase: Information

- Industry and research partners search partners and their competence focus through the SDIL database

## Phase: Project Definition

- Data Access / Result Model Selection, Funding & Contract Model
- Research and Innovation Question and Results (Data, Algorithm, System)
- Technical Details including Data and Service Interfaces

## Project Proposal Phase

- Proposal handed into SDIL Community
- In case of go: Preparing Operation

## Phase: Analysis

- Prepare Data, Compute, Interpret Data and/or develop analytical method or system
- Publish Results according to Data Model

## Continuation Phase

- Prepare for follow up actions or development of a run time system
- Care of Data Life Cycle according to contract

# SDIL Models (proposed)

- SDIL introduces legal models to **accelerate data driven research**
  - Data Access Models: Standard for data access
  - P2P Models: Standard Contracts how to
    - Share data
    - What results get published
    - Data Life Cycle
    - Funding Contract Model
- SDIL develops standardized interfaces to data and computation
  - Technical Libraries to harmonize access to HANA, Terracotta, Hadoop, Watson etc.
  - Specialized libraries for application areas and user groups

# Further Activities and Services of SDIL

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- Workshops
- Competition
- Consulting & Support
- Tools
- Education



# Core members

## ■ Operation & Community Members

- Karlsruhe Institute of Technology (KIT)
- SAP
- Software AG
- Microsoft

## ■ Operators

- Hitachi Data Systems

## ■ Community Members

- Bayer
- Bosch
- Energy Baden-Württemberg (EnBW)
- Forschungszentrum Jülich
- Fraunhofer
- German Research Centre for Artificial Intelligence (DFKI)
- Siemens