

Boosting Scientific Reusability:

A Concept for a FAIR Scientific Workflow Infrastructure

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In cooperation with

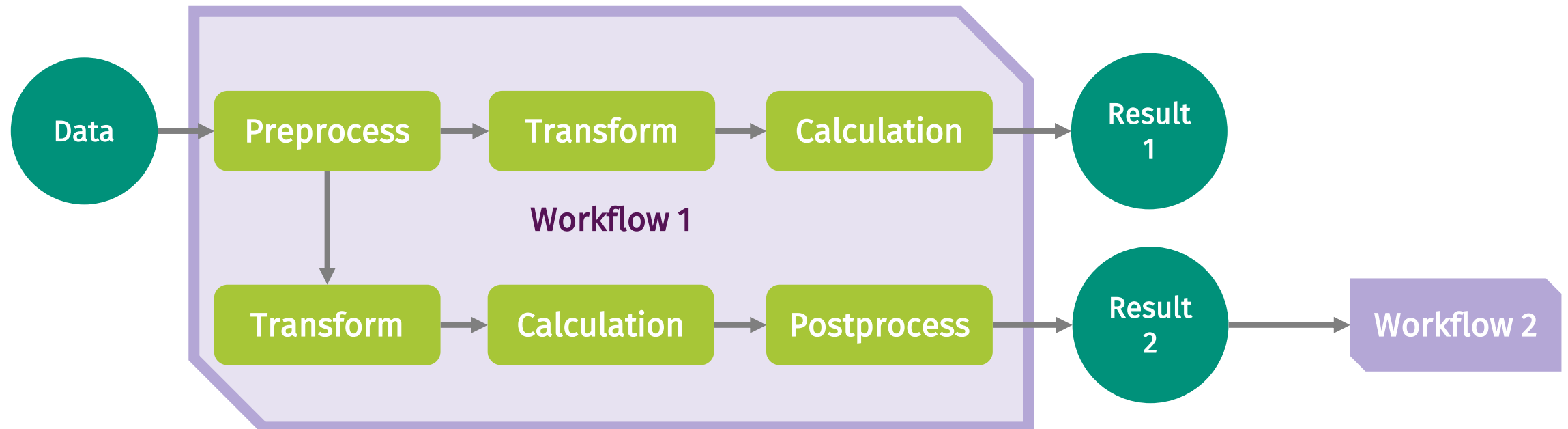


Introduction – Measure 4.4

- **Scientific Workflow Infrastructure (SciWIn)**
- Support scientists in creating and recording **computational workflows with full provenance**
 - Provides infrastructure for **workflow execution**
 - Enables **collaboration** between researchers
 - **FAIR** publication of research objects

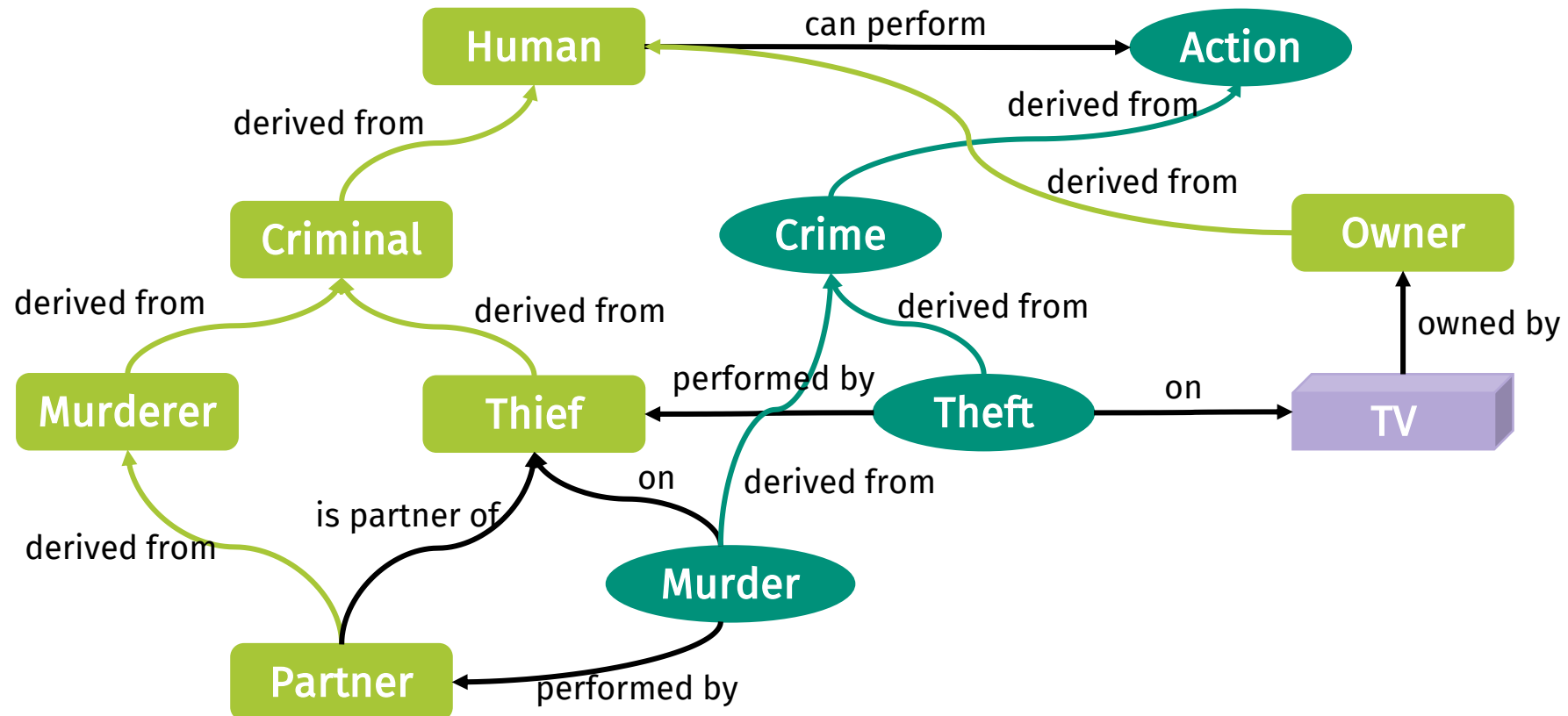
Workflow

„Computational workflows describe the complex **multi-step methods** that are used for data collection, data preparation, analytics, predictive modelling, and simulation that **lead to new data products.**” (GOBLE et al.)

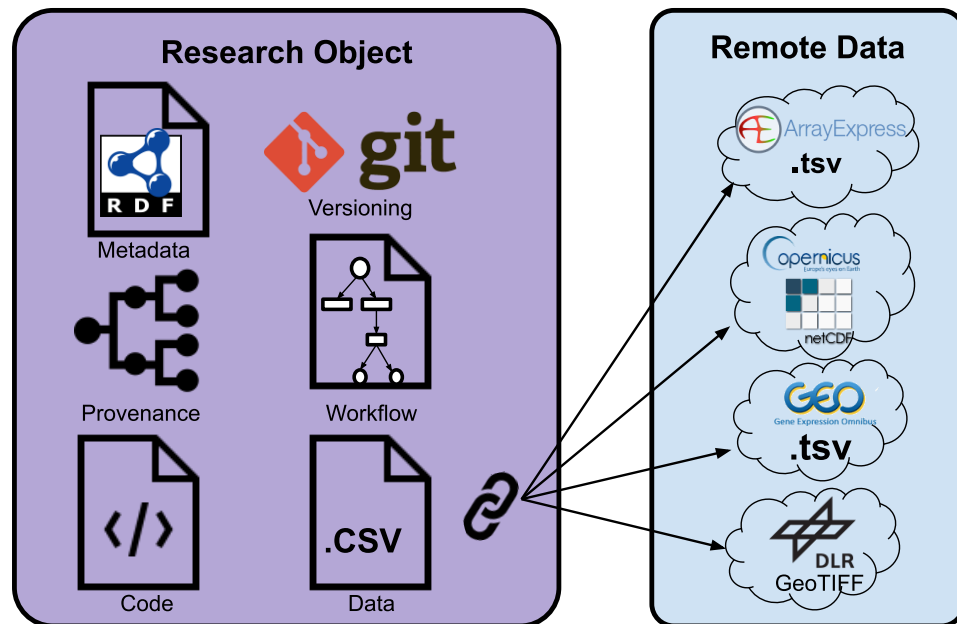


Provenance

“Data provenance refers to the knowledge about data sources and operations carried out to obtain some piece of data.” (DANGER et al.)

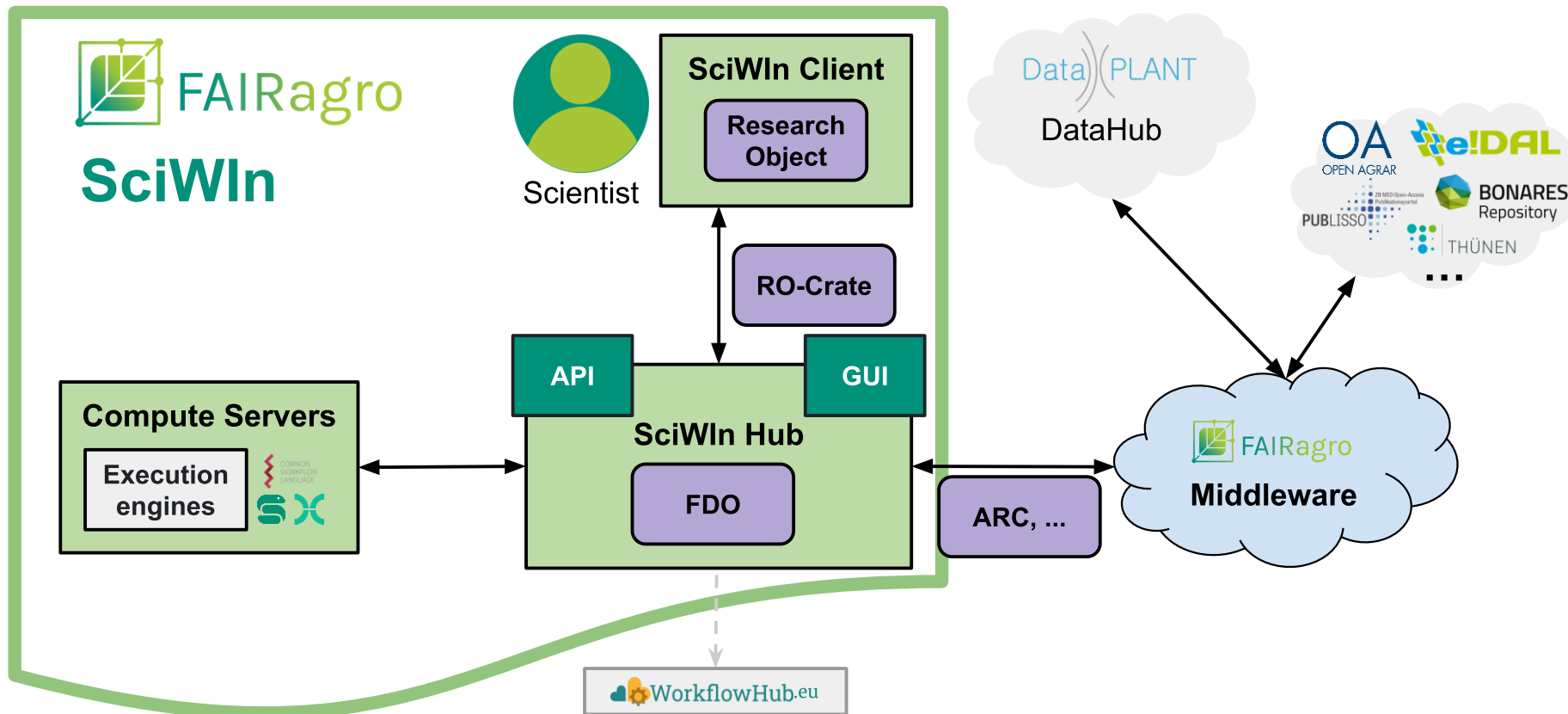


Research Objects

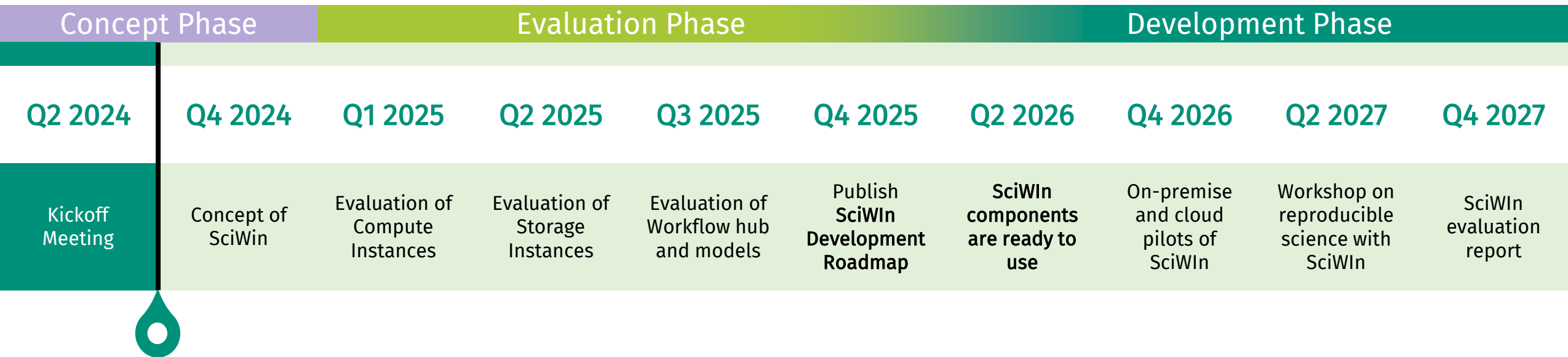


- **Multiple Profiles:**
- Research Objects \leftrightarrow RO-Crate \leftrightarrow ARC \leftrightarrow FAIR Digital Object
- RO-Crate \rightarrow packed RO
- ARC \rightarrow special structure (ISA)
- FAIR DO \rightarrow has PID

Early Concept



Outlook / Roadmap

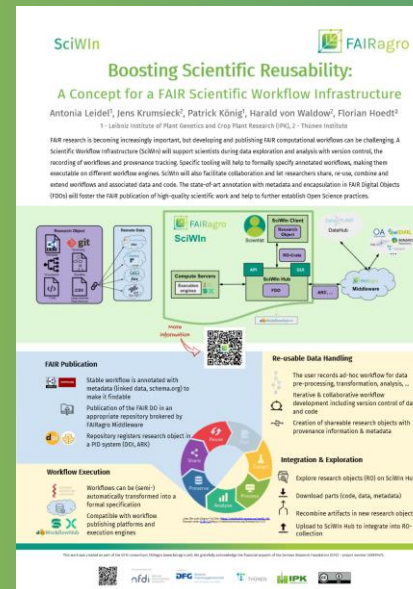


Thank you for your attention!

More Information

Measure 4.4

- Harald von Waldow (Lead)
- Patrick König (Co-Lead)
- Antonia Leidel
- Jens Krumsieck



Poster



Background Text