Research Data
Management in the Lab

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Open Repositories 2010
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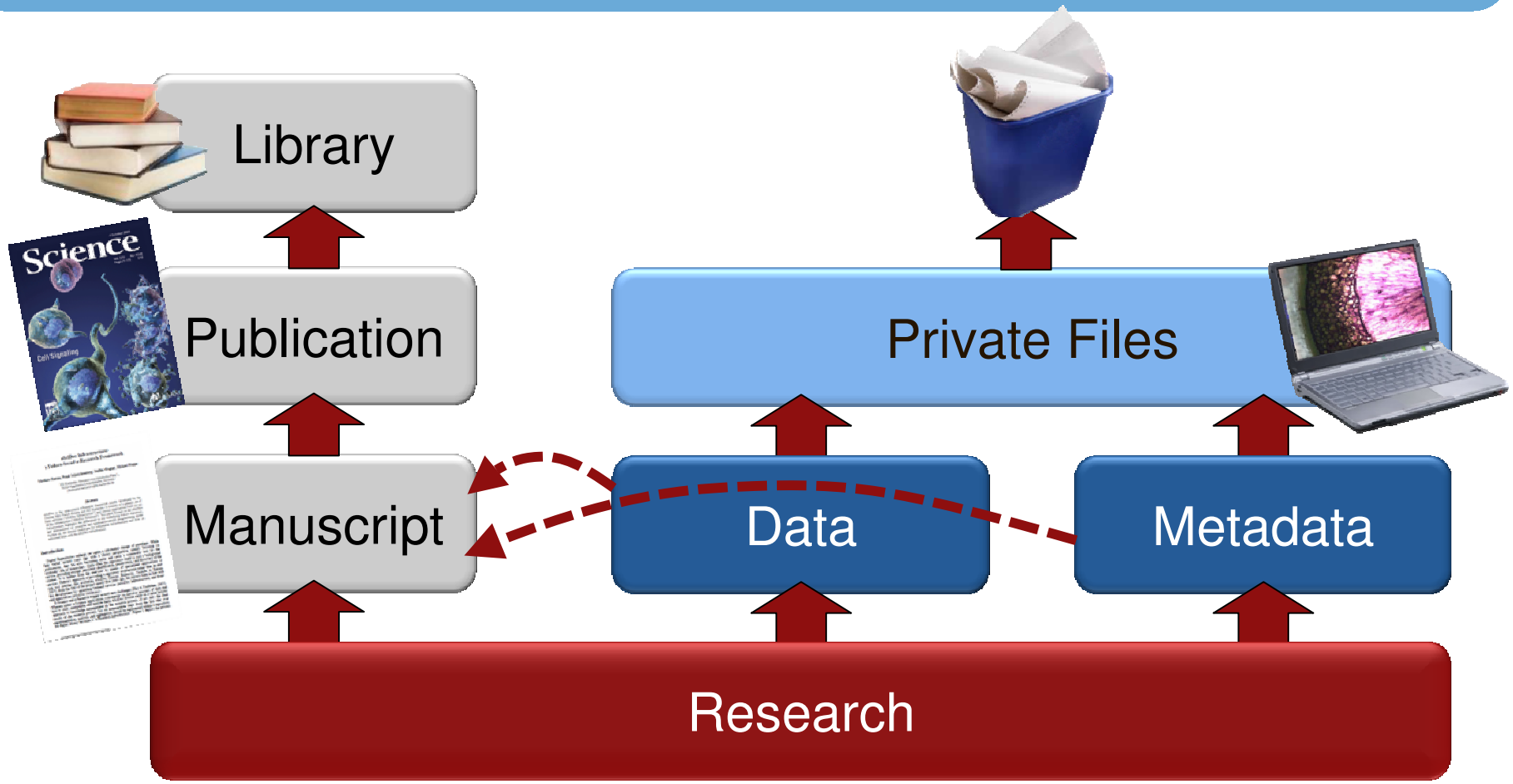
Data in the Publication Process Today



J. Helly, H. Staudigel, and A. Koppers, Scalable models of data sharing in Earth sciences, Geochem. Geophys. Geosyst., 4(1),1010, doi:10.1029/2002GC000318, 2003

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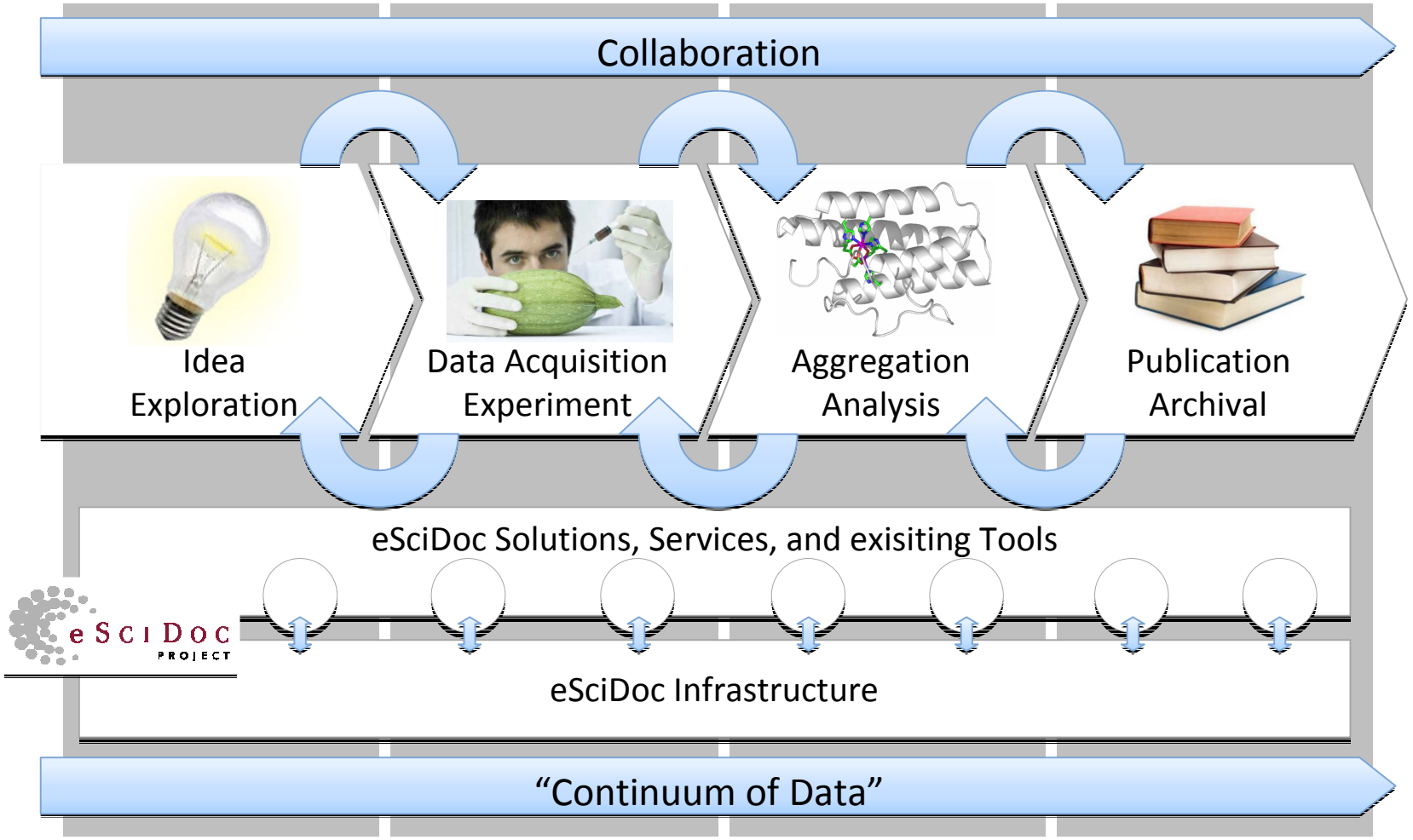
eSciDoc Vision



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BW-eLabs

BW-eLabs gives access to virtual and remote experiments in the field of nano technology and digital holography.

Key concepts include:

- reproducability of experiments
- discoverability of and access to primary data
- storage and curation of all artifacts that emerge throughout the research process

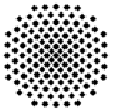
The project is funded for 2 ½ years by the Ministry of Science, Research, and Art, Baden-Württemberg

Ministerium für Wissenschaft, Forschung und Kunst
Baden-Württemberg

BW-eLabs

Project partners

- University of Stuttgart
  - Institute of Applied Optics
  - Computing Center
  - Library
- Stuttgart Media University
- University of Freiburg
  - Freiburg Materials Research Center
  - IT Services
- FIZ Karlsruhe



Universität Stuttgart

HOCHSCHULE DER MEDIEN

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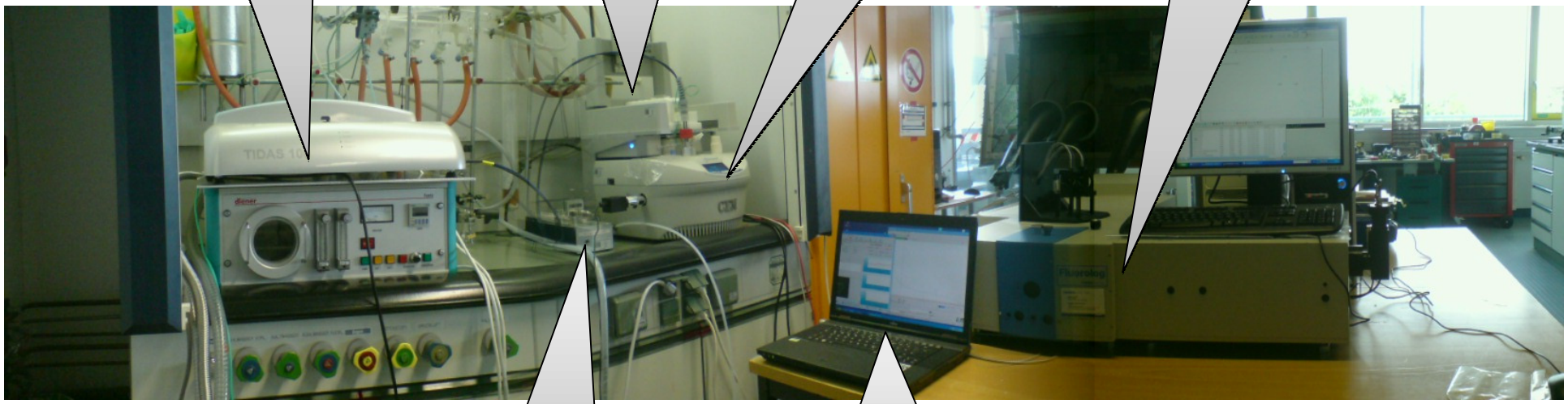
Instruments in the Nano Laboratory



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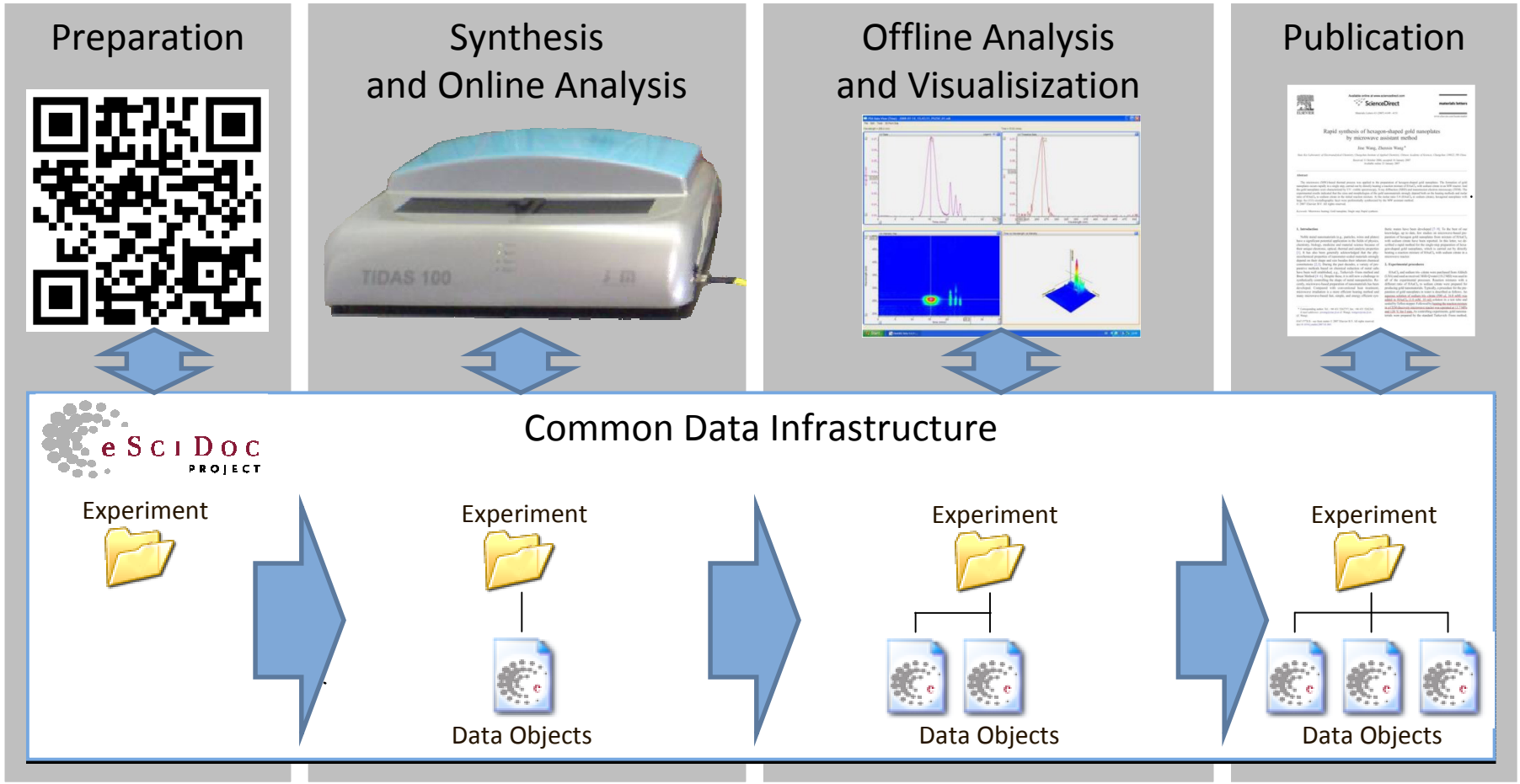
BW-eLabs: Collecting Data throughout the Research Process



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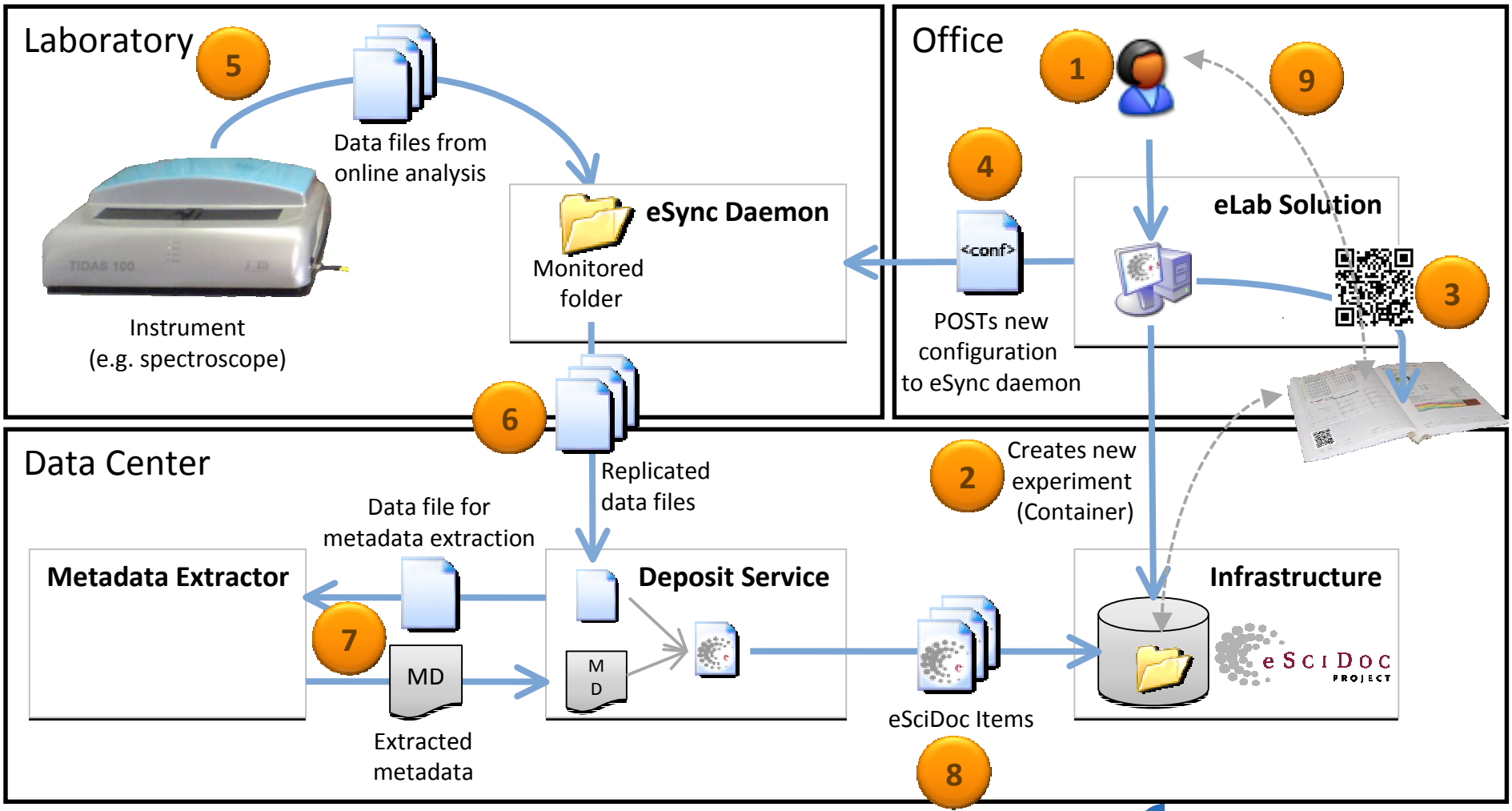
BW-eLabs: Data Acquisition in the Lab



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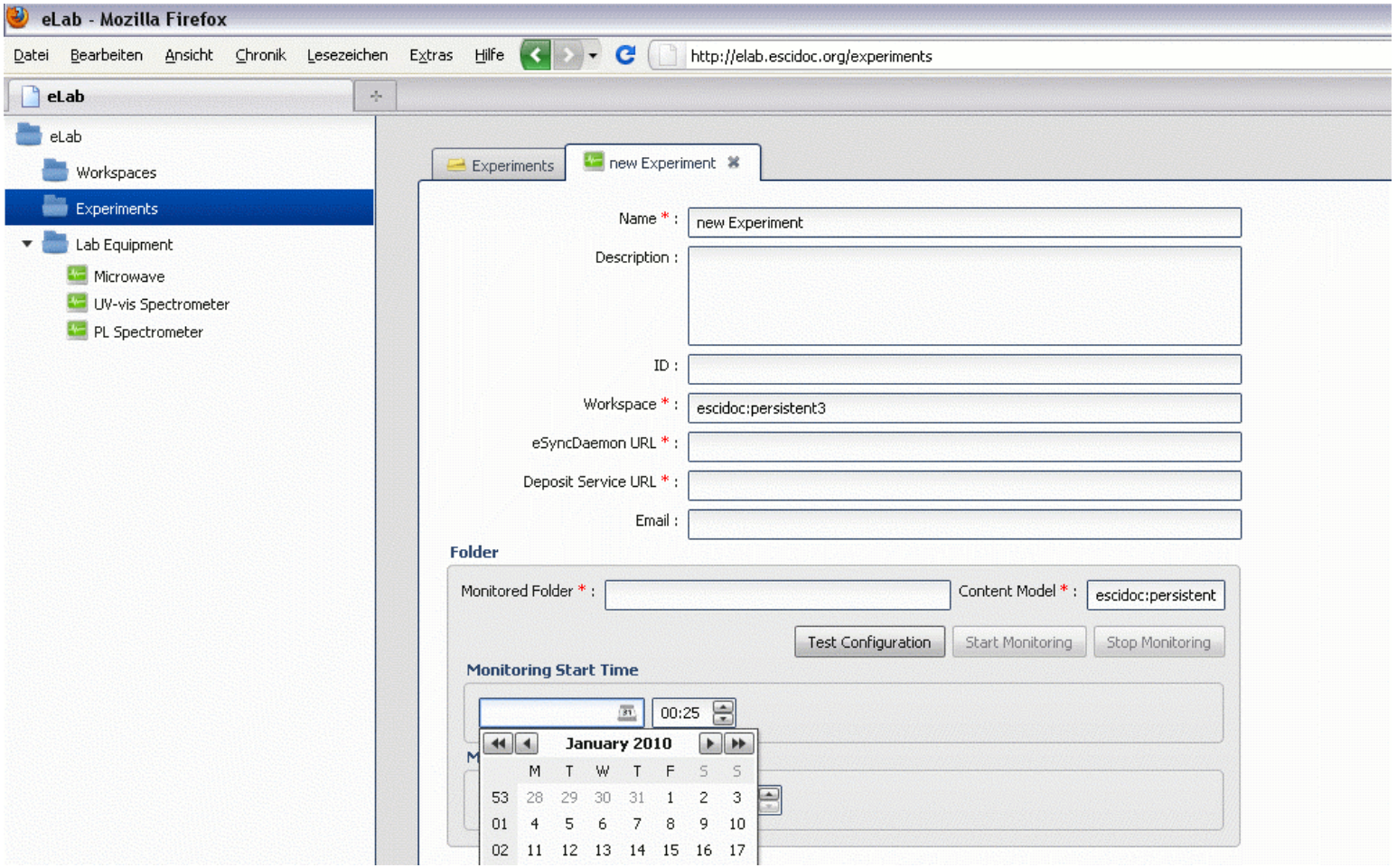
eLab Solution



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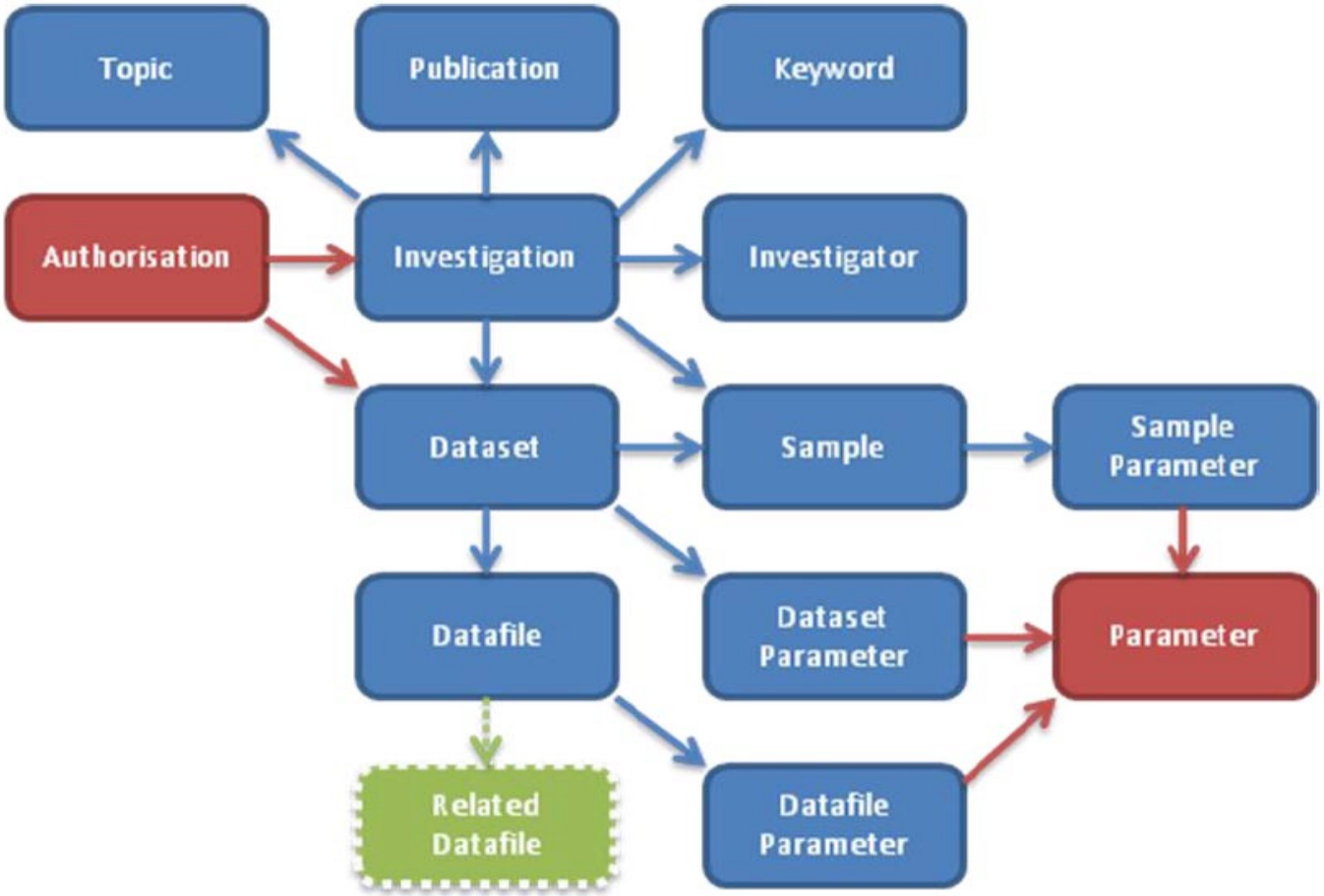
Core Scientific Metadata Model



B. Matthews et al. „Using a Core Scientific Metadata Model in Large-Scale Facilities."
5th International Digital Curation Conference. London, 2009.

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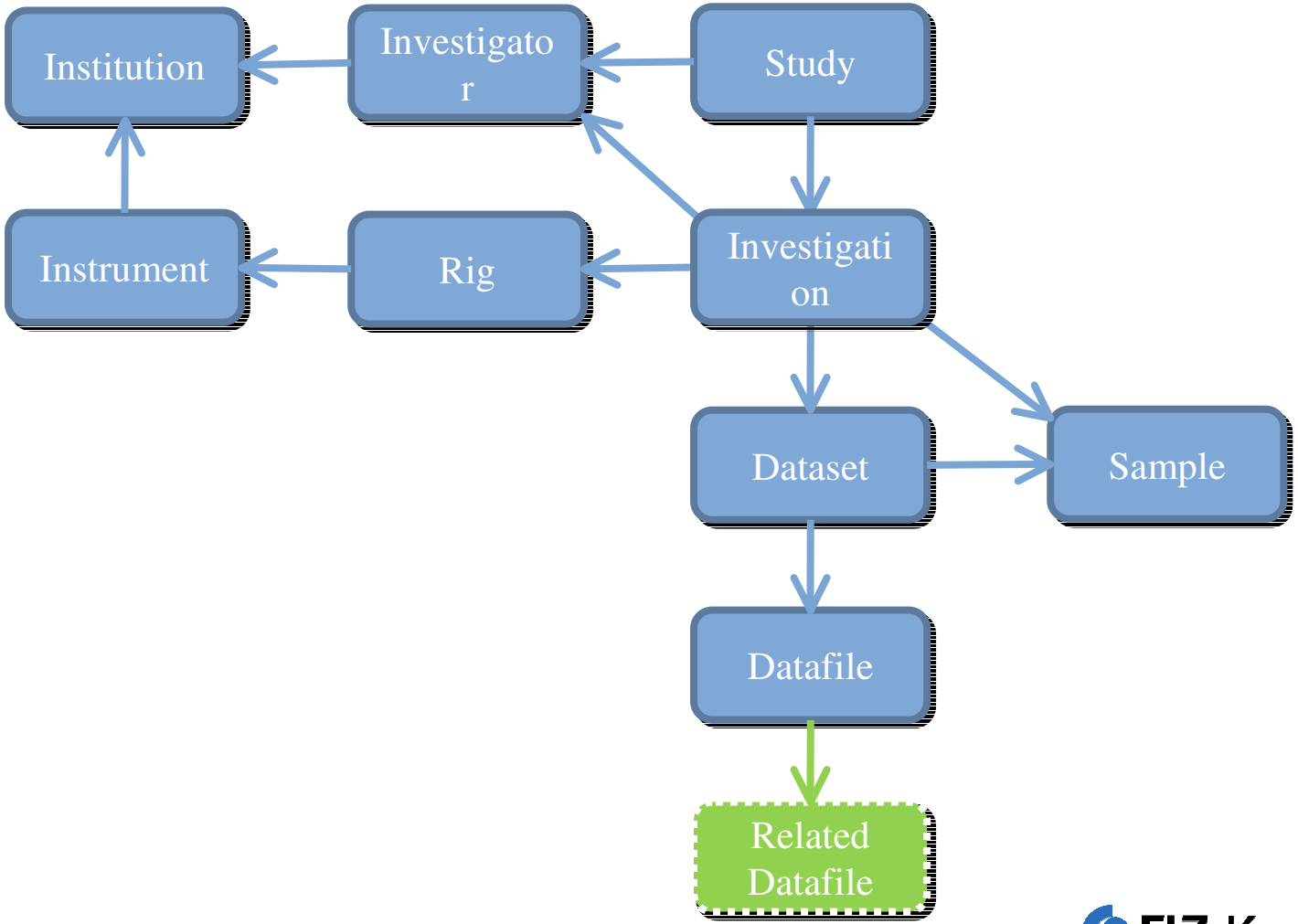
BW-eLabs: Metadata Model



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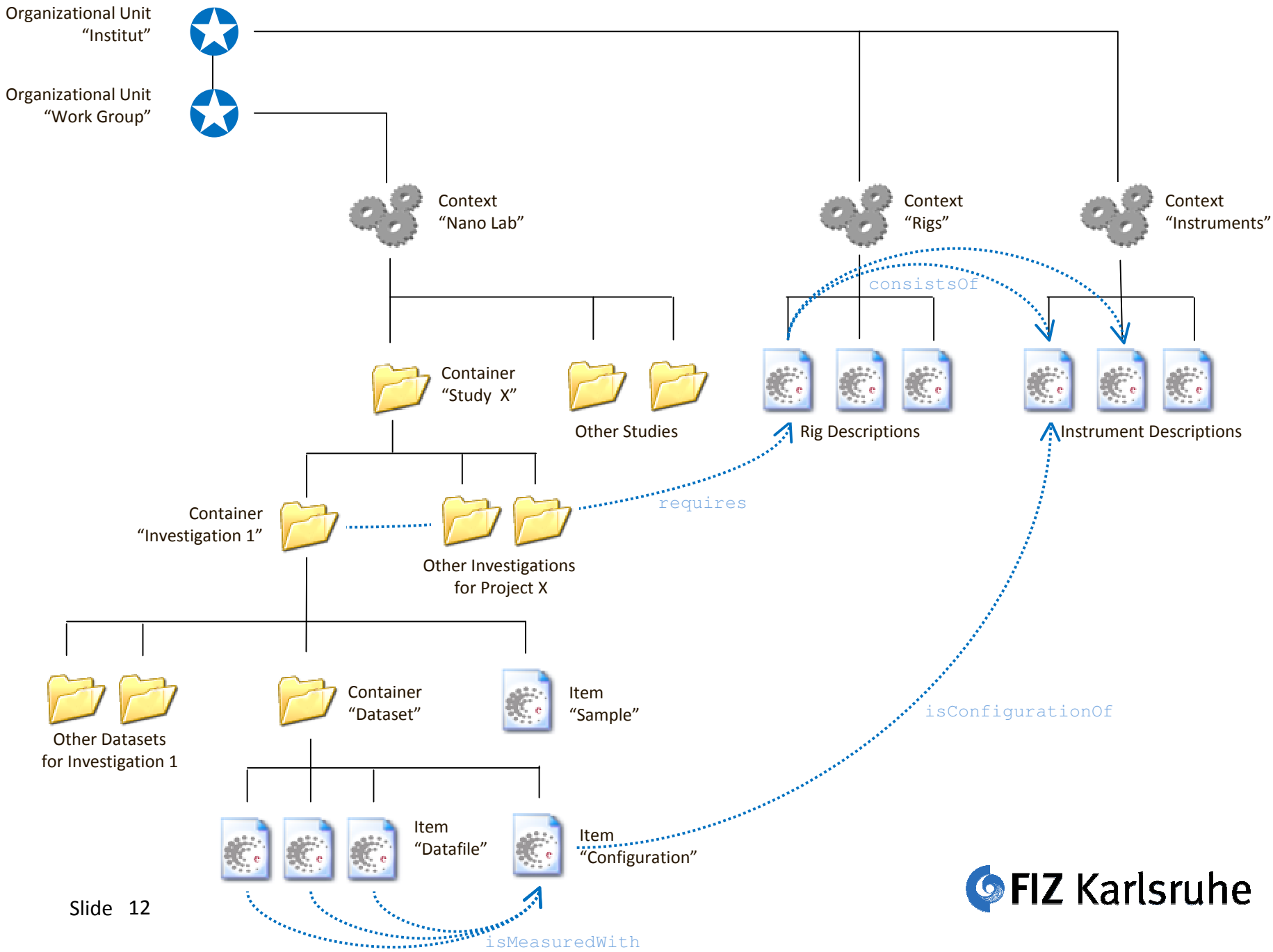

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Next Steps

- Roll out the software at Institute of Applied Optics
- Replace Javascript-based prototype of eLab Solution with Java-based production version (Vaadin)
- (Semi-) automatically create semantic relationships between objects (e.g., measured spectrum with instrument and calibration)
- Add (numeric) search for data (unit-aware)
- Add data publication component

… and set up a web page describing the project!

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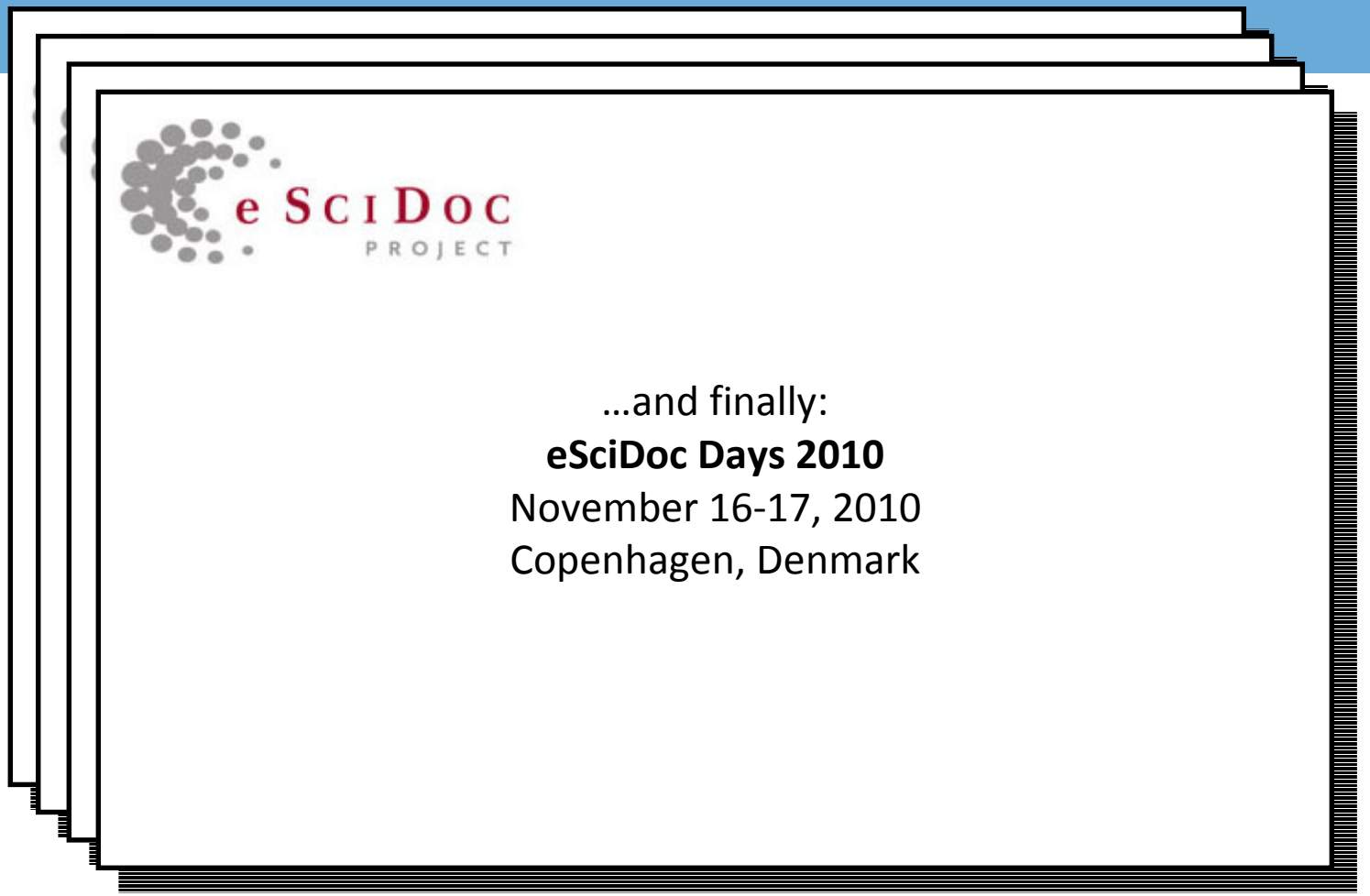

…and finally:

eSciDoc Days 2010

November 16-17, 2010

Copenhagen, Denmark

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