



Enriching Scientific Research with Metadata: Electronic Lab Documentation Landscape at HZDR

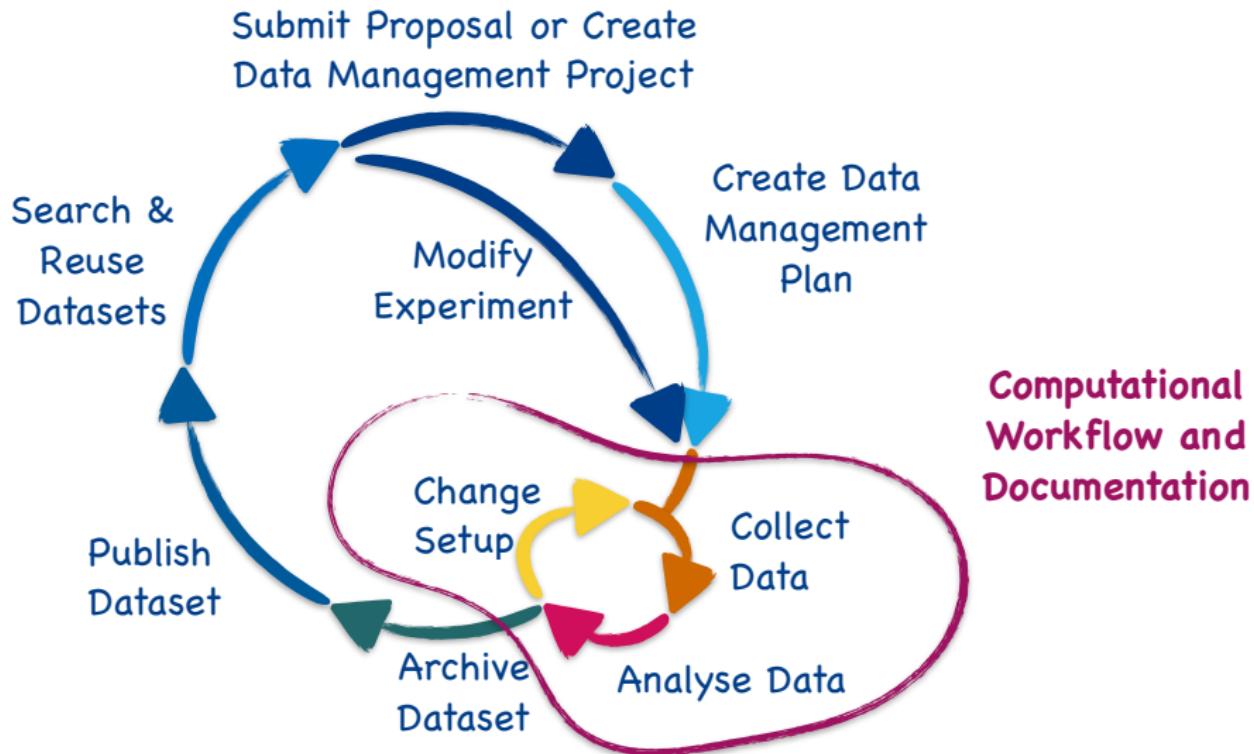
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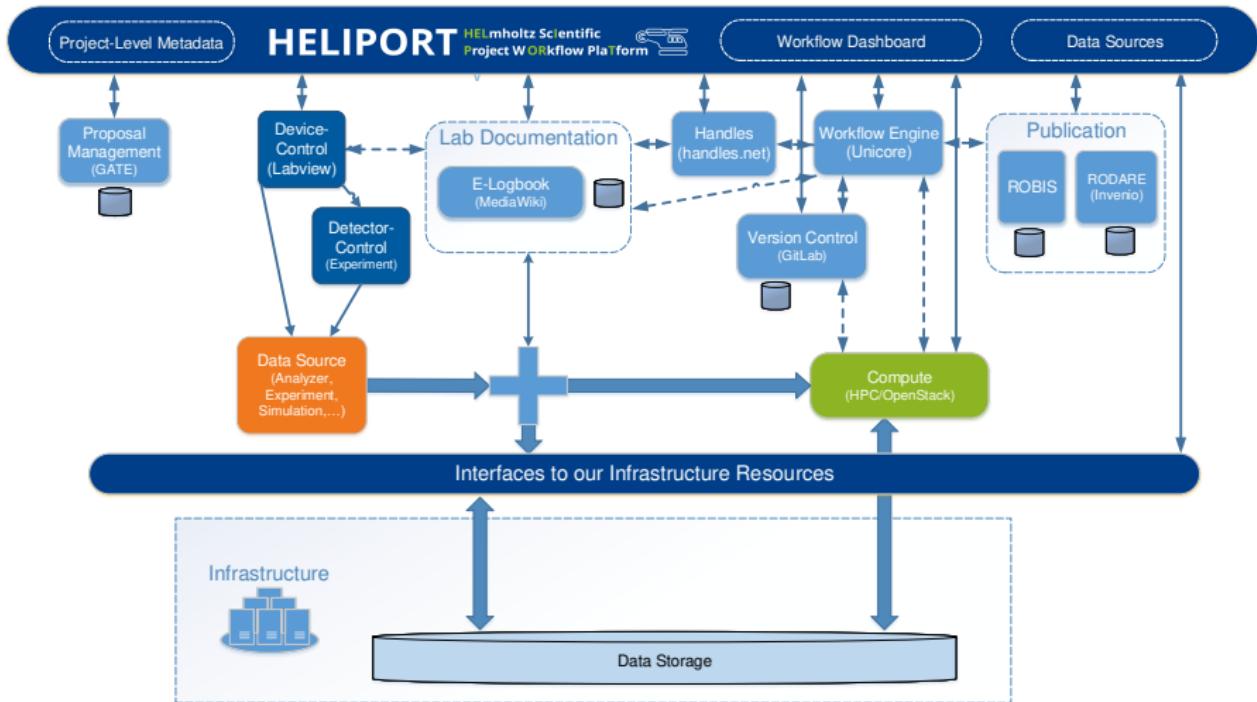
November 8, 2023

Goal - Most complete description of the data set

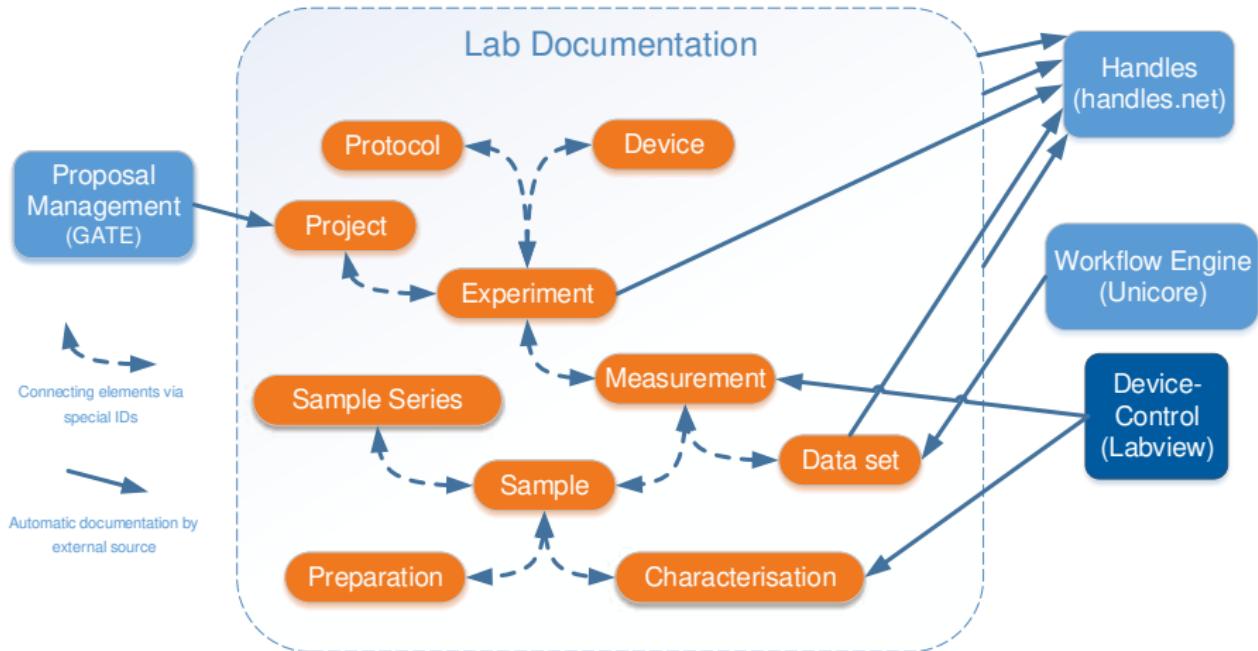
Data life circle



Interaction Diagramm of a selected Experiment



Typical Documentation Structure



Advantages of Electronic Documentation

- Gather information in individual ways from different sources by reusing already collected data
- Time savings by reusing gathered data through connecting existing elements to new elements
- Collaborative working from different places by multiple persons
- Advanced search for structured meta data, strongly depends on selected tool (data base type, API, etc.)
- Search within the program and from other programs
 - e.g. Within a jupyter notebook ask the API of the documentation tool for all datasets for device "xyz" measured with sample "abc" with parameter 1 = "1 unit" and parameter 2 > "2 unit" from last beamtime
 - ...