

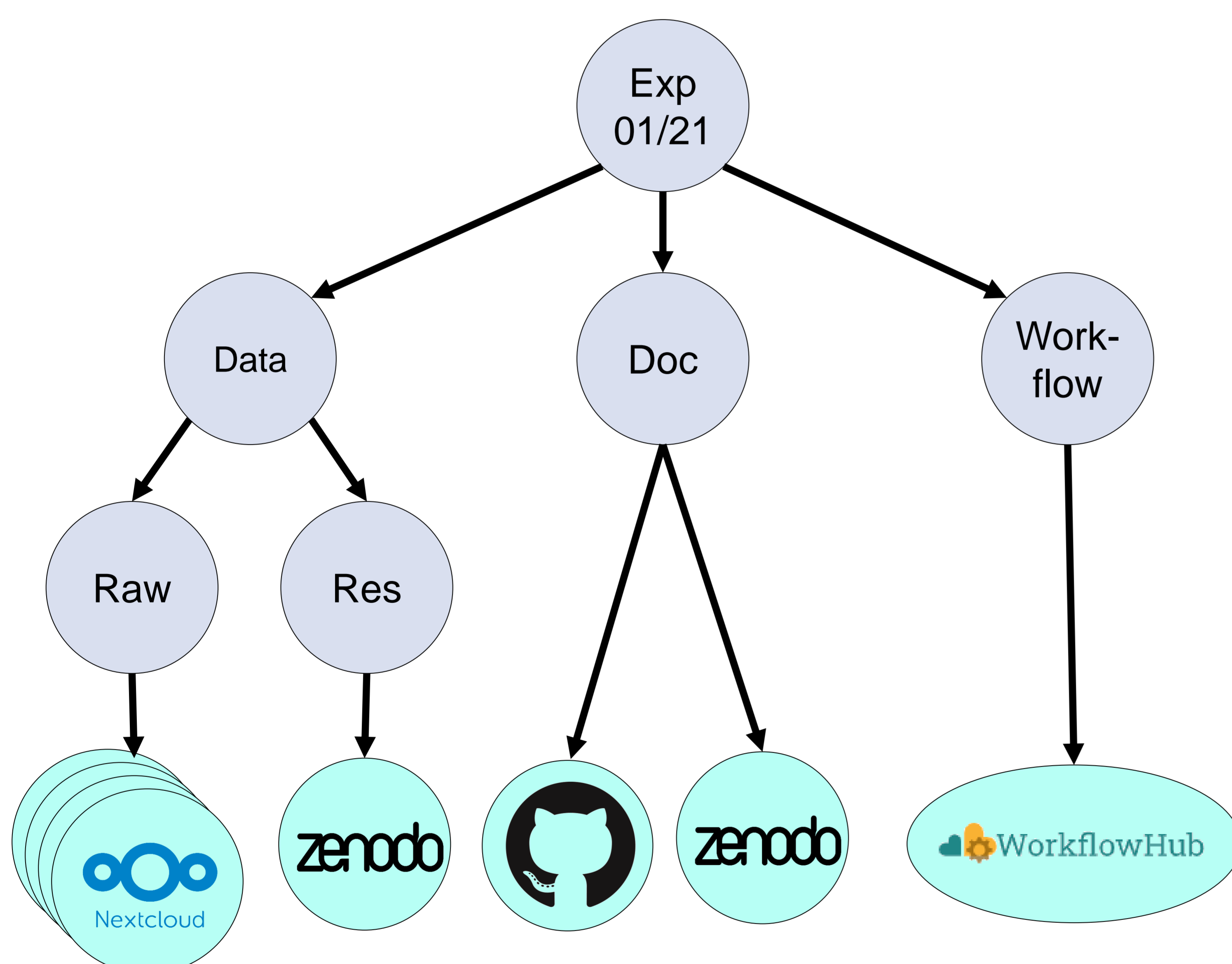
RDA Collection Registry Adoption

Thomas Jejkal, Sabine Chelbi, Andreas Pfeil

During her career, probably every scientist comes to the point where an aggregation of potentially diverse resources is required. May it be measurements of the same sample using different instruments, linking a publication to a certain dataset or providing data, source code and analysis results in a citable manner. The RDA Working Group on Research Data Collections (RDC) has identified the need for leveraging such aggregations in a unified, cross-community way as for sure, each research data management platform offers aggregations in a certain way, but without paying too much attention on interoperability and reusability aspects of such resource collections.

RDA Research Data Collections WG

- Defined a model for representing research data collections in a domain agnostic way
- Provided a technical interface specification for client-server interaction
- Both goals combined with Data Type support to enable machine actionability on collections
- Final Recommendations:
<https://doi.org/10.15497/RDA00022>

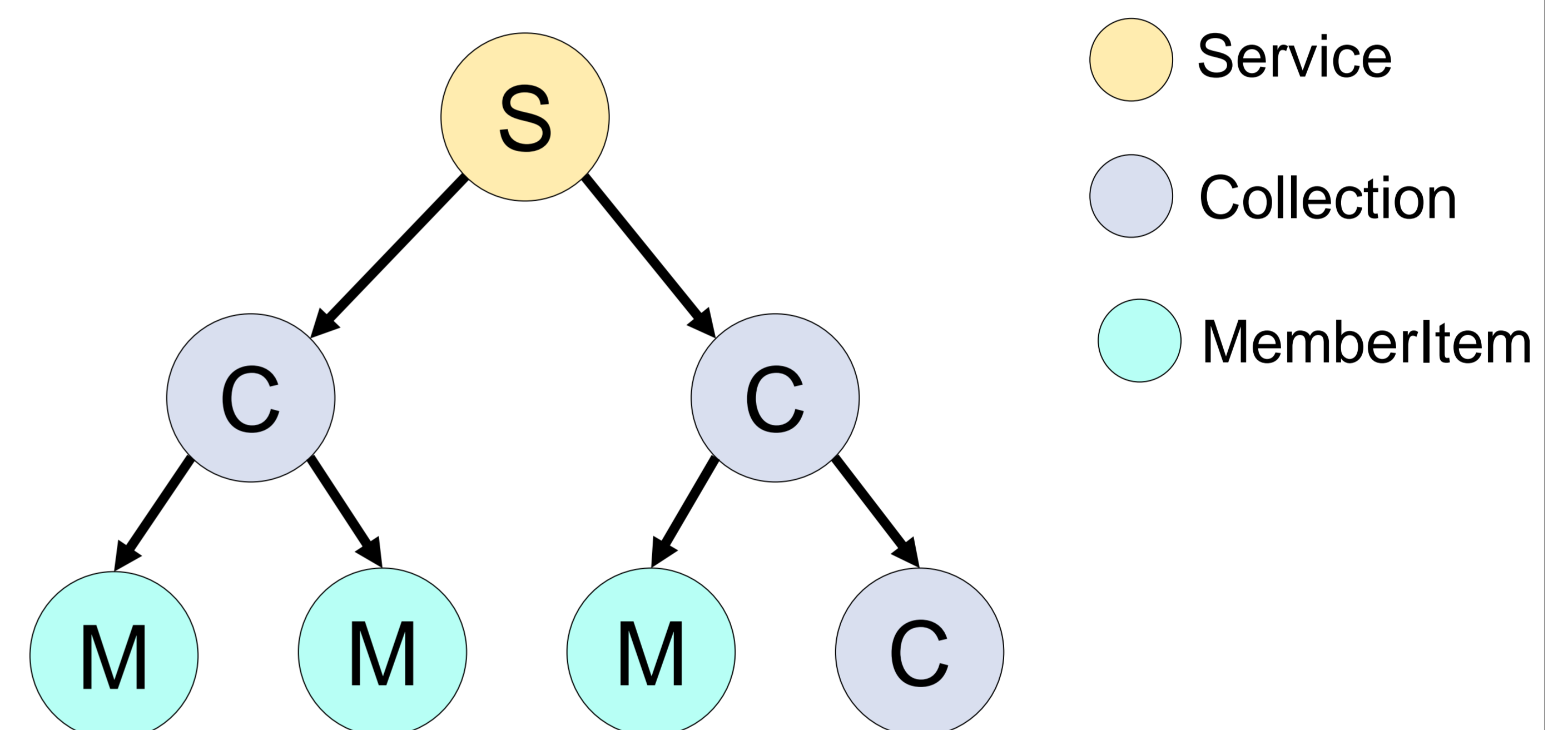


- Allows to build up collections of entire scientific process
- Every (sub-)collection can be citable via Persistent Identifier
- Referencing of content allows inclusion of arbitrary data sources (e.g. NextCloud, Zenodo, GitHub, WorkflowHub...)

Contact:

sabrine.chelbi@kit.edu; thomas.jejkal@kit.edu

Collection Model



- Generic model, content referenced in MemberItems
- MemberItems may contain DataType, Index and Role
- Collections may only contain MemberItems of specific type, can be ordered, immutable and limited by size

Adoption Details

- Java + Spring Boot implementation of specification
- Focus on clean and maintainable code
- Corrected some return type inconsistencies
- HTTP DELETE returns 204 (NO_CONTENT) instead of 200 (OK) according to HTTP specification
- Concurrency protection via ETag support
- Pagination support for better navigation through huge collections
- Build-in Web UI for Collection visualization
- Published under Apache 2.0 license
- Available at DockerHub at [kitdm/collection-api](https://github.com/kitdm/collection-api)

Source Code:

<https://github.com/kitdm/collection-api>