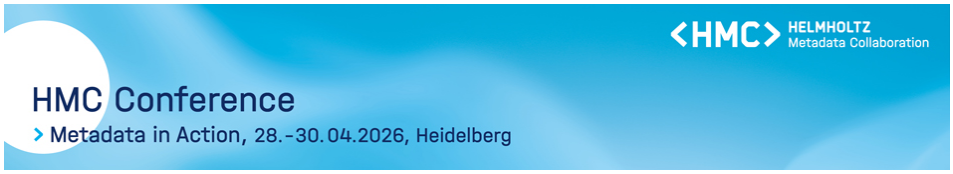

Beitrag ID: **91** Typ: **Talk**

Using persistent identifiers (PIDs) as a vehicle for achieving interoperability

Most research workflows involve use of multiple research tools, services, and IT infrastructure, each addressing one phase of the research life cycle. The lack of interoperability between resources hinders research productivity and prevents streamlined passage of data between tools and sustainable data FAIRification. This presentation discusses implementation of PIDs in RSpace to enhance interoperability between research tools and services used in different phases of the research lifecycle.

RSpace, which has evolved from an ELN into a research orchestration platform, has integrations with 20+ research tools and services, including domain specific research tools, data management planning tools, data repositories, equipment scheduling and colony management tools, computational resources including R, Jupyter Notebooks and Galaxy, protocols.io, and (institutional) data storage solutions. This has resulted in an ecosystem of connected research tools through which data can pass readily and seamlessly.

We will discuss pidification of RSpace and extension of the pids overlay to other tools and services in RSpace' s ecosystem. Starting with ORCIDs and RORs, we added support for associating IGSN IDs with physical samples and their metadata, and the ability to pass sample data and associated IGSN IDs from a field data capture notebook (Fieldmark) to RSpace. We then added support for PIDs for projects, RAiDs, and now are incorporating support for instruments, using PIDINST. With IGSNs, RAiD and PIDINST, we describe how product design is driven by consideration of research workflows involving other tools. This includes discussions with developers of other tools and open-source contributors to ensure that information about the PIDs can be shared through RSpace in a streamlined and effective fashion. Finally, we discuss how support for PIDs in a research hub like RSpace enhances an entire ecosystem of tools, services, and research infrastructure using open APIs, SDKs, and MCP tools and making it accessible to both humans and machines.

ONLY WORKSHOPS - Proposed interaction format

Alternative Track

ONLY WORKSHOPS - Tentative audience

ONLY WORKSHOPS - Maximum number of participants

ONLY WORKSHOPS - Special technical requirements

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Sitzung Einordnung: TALK SESSION

Track Klassifizierung: HMC Conference 2026 Track Topics: 2. Software Interoperability for (Meta)data Acquisition