

MAKING DATA MANAGEMENT FEEL EASY

Integration of a Hyrax Data Repository into the Research Process

Authors: Johannes Frenzel¹, Alexander Esser¹, Marlene Pacharra², Tobias Otto³,
Andreas Schramm¹, Raisa Barthauer⁴, Nina Olivia Caroline Winter¹

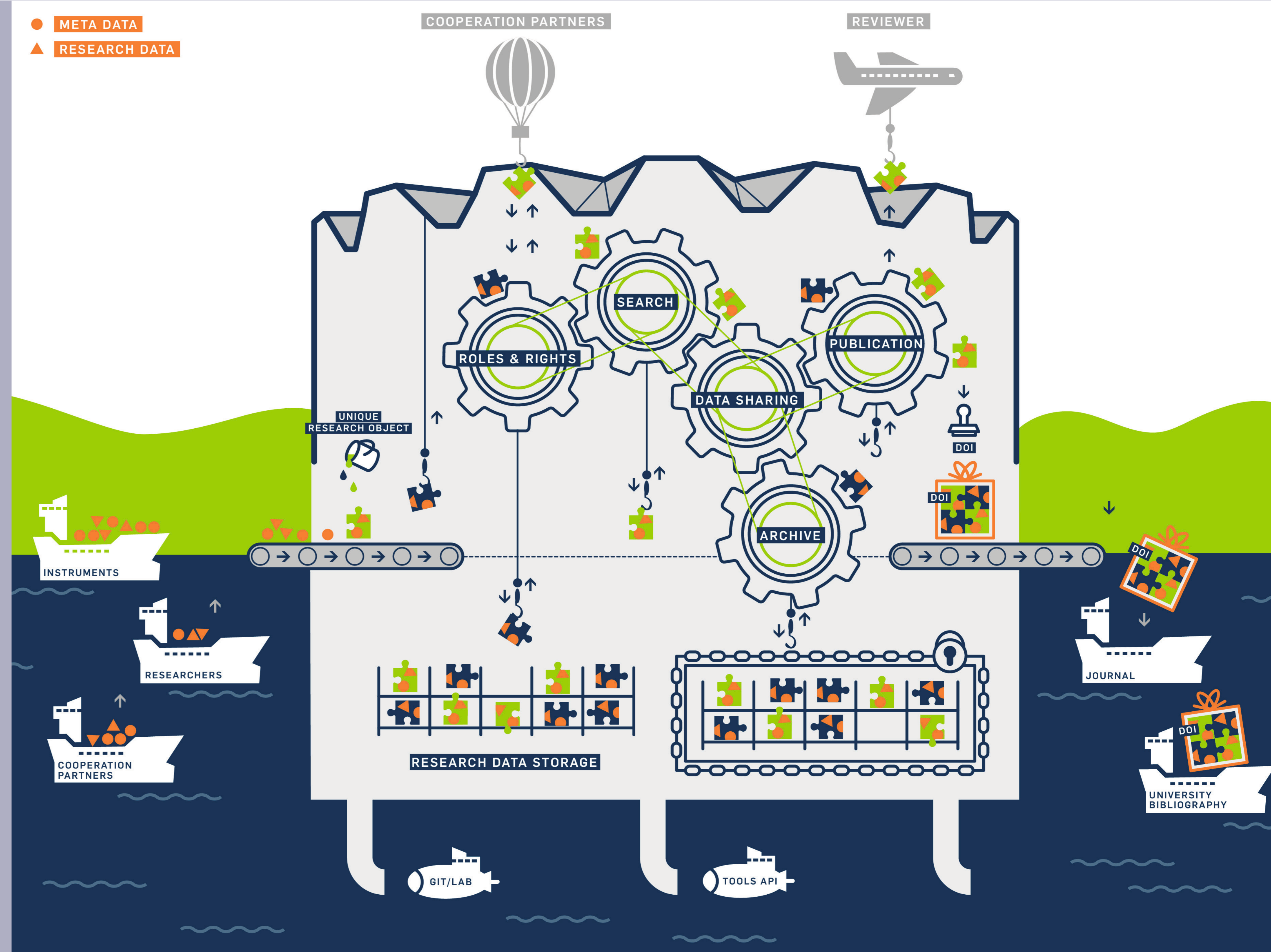
¹ IT.SERVICES, Ruhr University Bochum, Germany; ² Biopsychology, CRC 1280 „Extinction Learning“, Ruhr University Bochum, Germany
³ Cognitive Psychology, Ruhr University Bochum, Germany; ⁴ University Library, Ruhr University Bochum, Germany

The Research Data Management System (RDM-System) is the research data repository of the Ruhr-University Bochum. It is a user-driven development that enables researchers to easily integrate data management into their research workflow from the beginning. The system is a self-service tool for researchers to store, describe, share, archive (bit-stream) and publish their data. It supports FAIR data principles and promotes the implementation of RDM and open science policy requirements.

FOR THE ENTIRE RESEARCH WORKFLOW

The repository can be integrated into the overall research workflow:

-  Finding data
-  Collaboratively editing data
-  Assigning rights
-  Describing data with metadata
-  Linking data
-  Publishing data
-  Referencing and sharing data persistently
-  Storing data for long term (10 years)



GENERIC SERVICE VS. DISCIPLINE-SPECIFIC DEVELOPMENT

Further development of the repository to meet subject-specific requirements.

-  Mapping of research-specific data models
-  Integration of subject-specific metadata schema
-  Individual roles and right management
-  Faceted search
-  Connection of complex measurement systems

USING THE REPOSITORY

- All researchers at RUB, collaboration partners, CRCs, Clusters, etc.
- Access via Shibboleth (DFN-AAI), ORCID
- Low barrier adoption for the researchers in the lab where data is being generated
- Early data sharing and reuse with collaborating research groups

FUTURE PLANS

- Provide training and self-learning materials
- Implementation of interdisciplinary use cases
- Constant improvement with researchers participating

TECHNICAL DETAILS

Software

- Open source  

Infrastructure & Interfaces

- Common APIs, OAI
- Interfaces with native S3 compliant storage
- Bulk ingest
- Import of complex folder structures

Storage

- Geo-distributed object storage

Metadata

- Standard metadata schema (DataCite)
- Adaption of new schemas

