



# Implementing usability-improved data management plans in interdisciplinary engineering projects

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# Where did we start?

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- Two data stewards
- Active in the Cluster of Excellence "Internet of Production"
- Cluster vision: Making data available along the whole production chain
- Highly interdisciplinary environment



As data stewards...

- What are our aims?
- Meaningful RDM structures to work on?

# Aims

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- Raising general awareness of RDM among researchers
- Strengthening comprehensibility and reproducibility of research
- Making data available
- Creating measurable quantities
  - Types and volume of research data in the cluster
  - Degree of persistently identifiable and sustainably stored research data
- Having a DMP created by each project
- **Implementing a data management plan template/tool for the cluster**

# Initial State

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Vorlage Datenmanagementplan  
für die RWTH Aachen University



- A lot of material on creating data management plans – for researchers
- Material lacks on implications for the work of data stewards
- Initial impressions via try-out and exchange with RDM network:
  - Practical barriers
  - Motivational/acceptance barriers
  - Variety of templates, tools
- Input by researchers needed to derive requirements

# Interview Series with Researchers

## Setting

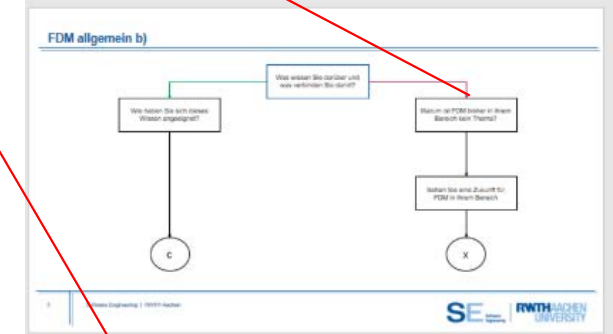
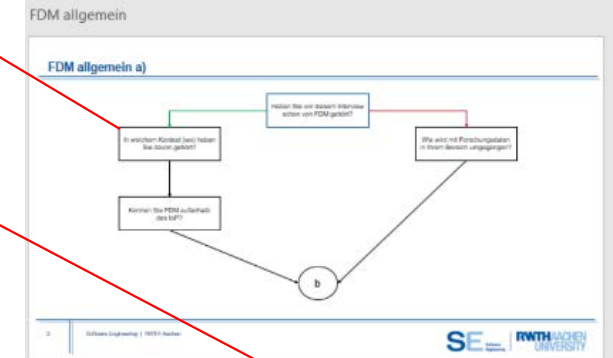
- Over three months
- 28 interviews with Cluster researchers

## Topics

- Types of research data
- RDM knowledge
- Perceived barriers and incentives

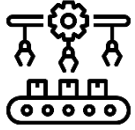
## Methods

- Semi-structured interviews
- Predefined question flow
- Qualitative analysis via tagging in transcripts



# Derived Requirements

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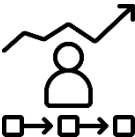
**CR1:** Elaborating on relevant topics



**CR2:** Ensuring comprehensibility and unambiguity



**OR1:** Top-down structure specifications



**OR2:** Reducing overhead



**(OR3:** Integrated of further RDM functionalities)

# Implementation

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- Addressing cases such as business-sensitive data (CR1)
- Writing help-texts and examples for the DMP (CR2)
- Creating material/instructions for working with the DMP (CR2)
- Close coordination with and communication via cluster management (OR1)
- Fixed response options (OR2/OR3)
- Tags (OR2/OR3)
- Summarizations (OR2)
- Tool Research Data Management Organiser (RDMO) (OR3)

## Next Steps

- Organizational specifications with cluster management (OR1)
- DMP training for all researchers on Research Summit (CR2/OR1)
- Cluster-wide roll-out with feedback iterations (OR2)

# Outlook: Linkage to further RDM services (OR3)

The screenshot shows the Coscine search interface. At the top, there is a search bar with the text 'squirrel' and a search button. Below the search bar, there is a navigation menu with 'Home / Search'. The main content area displays search results for 'squirrel'. The first result is 'Squirrels in Europe' with the following details: Archived: false, Visibility: Public, License: CC BY 4.0 (Attribution), Alternative Title: Squirrels in Europe - S3, Conforms To: https://purl.org/coscine/ap/radar/, Subject: images, squirrel, behavior, Persistent ID: 21.11102/aa123a6f-ec5a-4e6a-bd43-4f1eb880bc77, Title: Squirrels in Europe, Description: Images of Squirrels in Europe sorted by color and size, Resource Type: RWTH-RDS-S3, and Belongs To Project: https://purl.org/coscine/projects/a2561455-625c-4aba-9f49-3d60641e8652. The second result is 'Squirrels in Serbia' with the following details: Archived: false, Visibility: Public, License: CC BY 4.0 (Attribution), Alternative Title: Squirrels in Serbia -WORM, and Conforms To: https://purl.org/coscine/ap/engmeta/. At the bottom of the search results, there is a pagination control showing '1' and a dropdown menu for '100'.

- Tool Coscine
  - Searchable repository
  - Assignment of identifiers
  - Storage and archive
- Challenges: "Double" workload, metadata profiles, ...
- Working on possible automatic integration
- Further exploration of possible tools, functionalities, ...



# Contact

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