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Data
verseNL

10

Years

CI

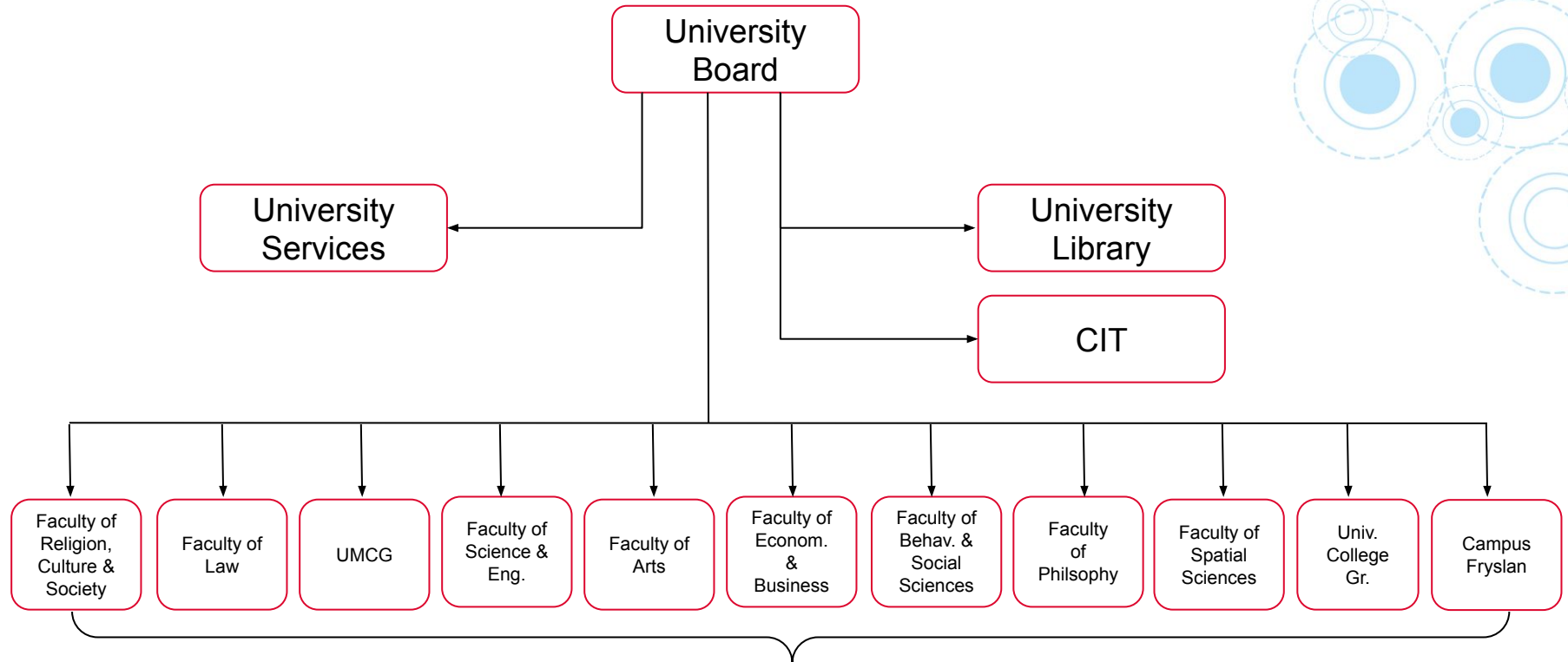
Research Data Management System (RDMS)

Publishing metadata in DataverseNL
16/09/2025

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University of Groningen (RUG)



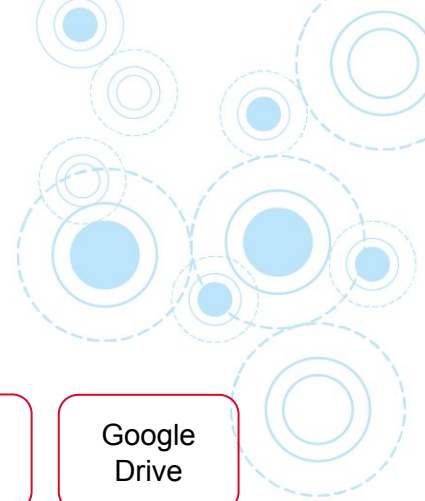
4700 academic staff - 2023



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Overview of Basic IT services at RUG



Workplaces

UWP
Windows
OS

LWP
Linux OS

VRW

Storage

mnt UWP
X & Y
drives

mnt LWP
Home &
group
drives

**RDMS
data
archive**

VRW

Unishare

SURF
Drive

Google
Drive

Data Sharing*

Unishare

SURF
Drive

SURF
File
Sender

Google
Drive

Computation

VRW

Habrok
HPC

- Refers to data sharing with the outside of RUG



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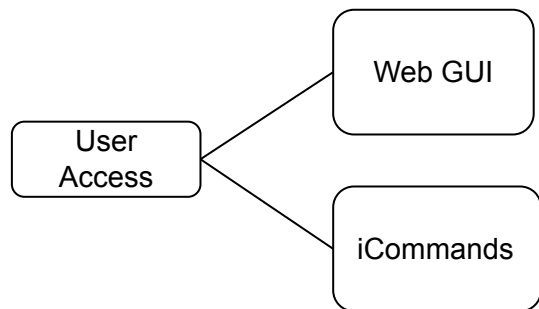
Research Data Management System (RDMS)

RDMS is a long term data storage system based on iRODS developed at the RUG. It offers the the following functionalities and features:

- Data sharing within RUG
- Metadata management
- Data query
- User management
- Policy automation
- Different data zones
- Data provenance (in development)
- (Archive) Metadata publication

Currently ~1.4 PB research data is stored in the RDMS and is increasing.

Research Data Management System (RDMS)



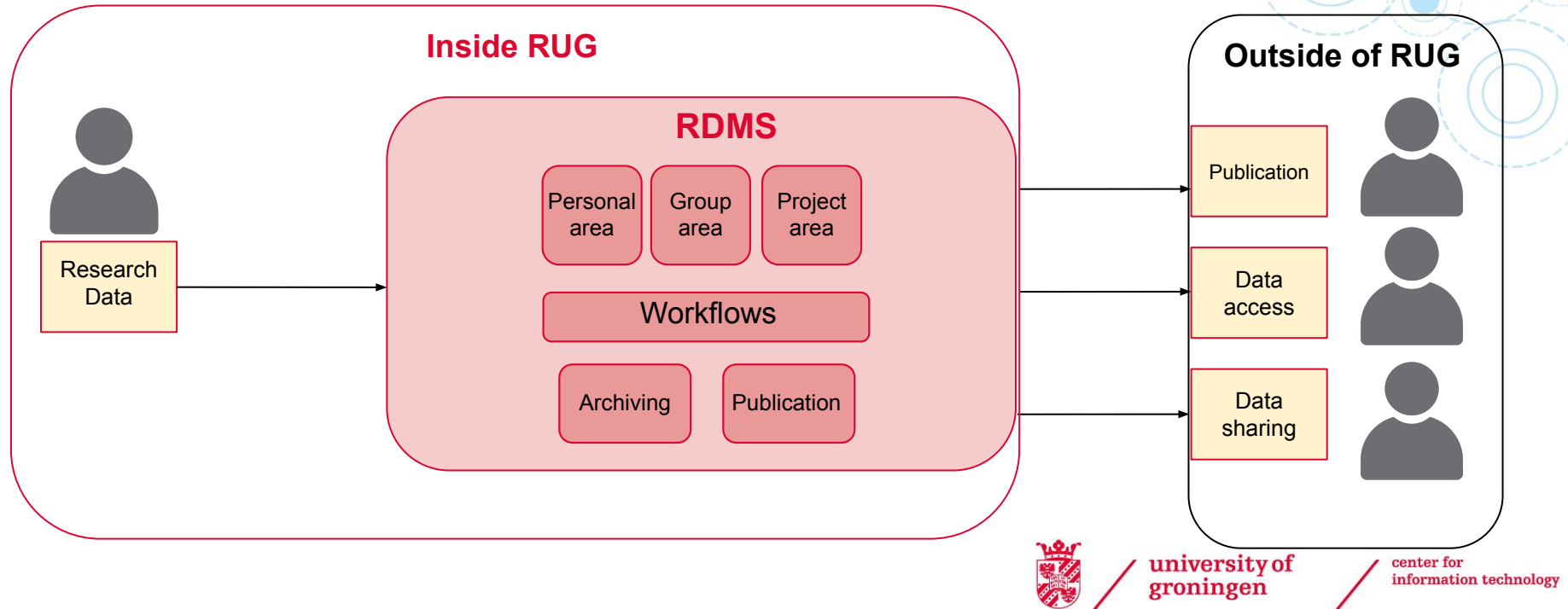
The screenshot displays the iRODS web GUI. On the left, a sidebar menu is visible with a green box highlighting the 'My folder' item. A green arrow points from this menu item to the main content area, labeled 'Browser of the selected Menu item'. The main content area shows a file browser view for the path '/rug/home/...@rug.nl'. It includes a table of files and folders with columns for Name, Size, Creator, Created, and Modified. A blue arrow points from the table to the text 'Content of the selected Menu item'.

Name	Size	Creator	Created	Modified
Astronomy	-	...@rug.nl	Mar, 09 2022	Sep, 06 2023
Experiments_MSc	-	...@rug.nl	Sep, 06 2023	Sep, 06 2023
my_data	-	...@rug.nl	Sep, 06 2023	Sep, 06 2023
testData	-	...@rug.nl	Apr, 28 2022	Jul, 24 2023
test_data_uwp	-	...@rug.nl	Jul, 21 2023	Jul, 21 2023
test-rdms	-	...@rug.nl	Jul, 24 2023	Jul, 24 2023
test-rdms2	-	...@rug.nl	Aug, 14 2023	Aug, 15 2023
Thesis_chapter1	-	...@rug.nl	Sep, 06 2023	Sep, 06 2023

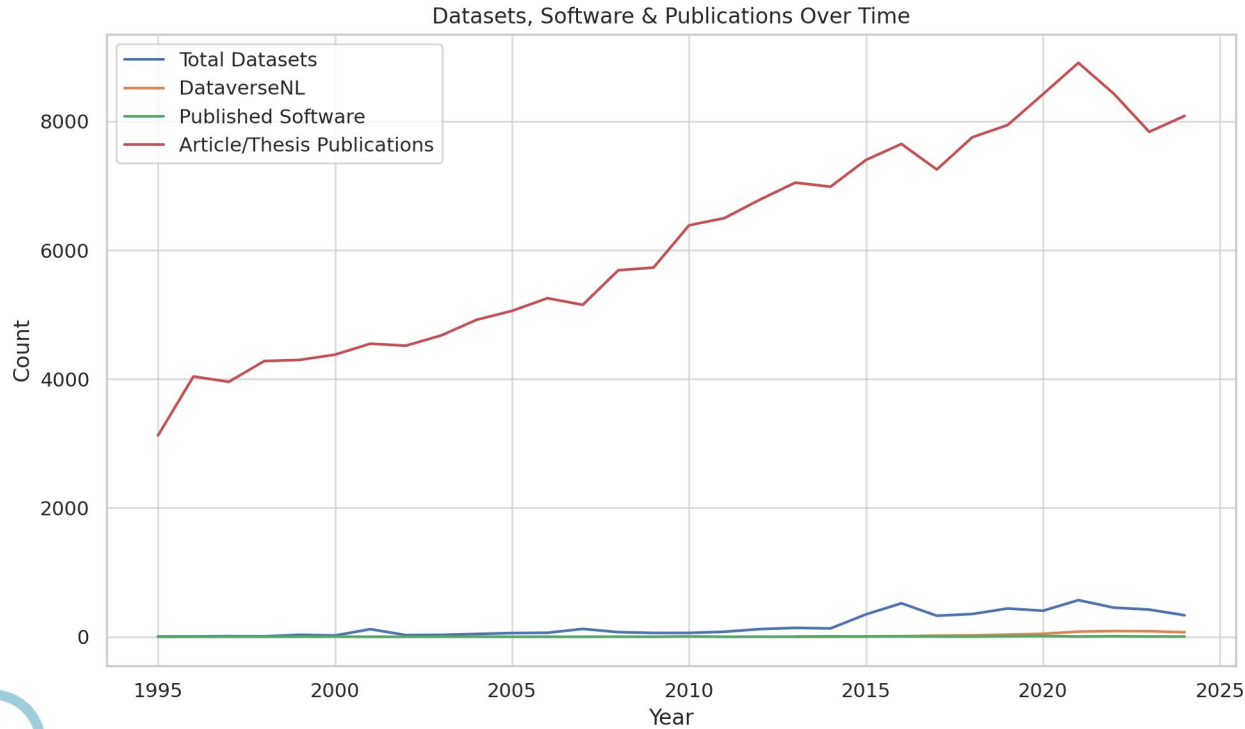
```
[p...@login2 .irods]$ iinit
Enter your current PAM password:
[p...@login2 .irods]$
```

RDMS - Vision

One platform where data can be archived, searched, shared, accesses and published for **all research data** and for **all researchers**



Publication history of the RUG based on the UG Research Portal



DataverseNL in the University of Groningen



University of Groningen

(University of Groningen)

Groningen Digital Competence Centre

52 Dataverses*

10 Faculties

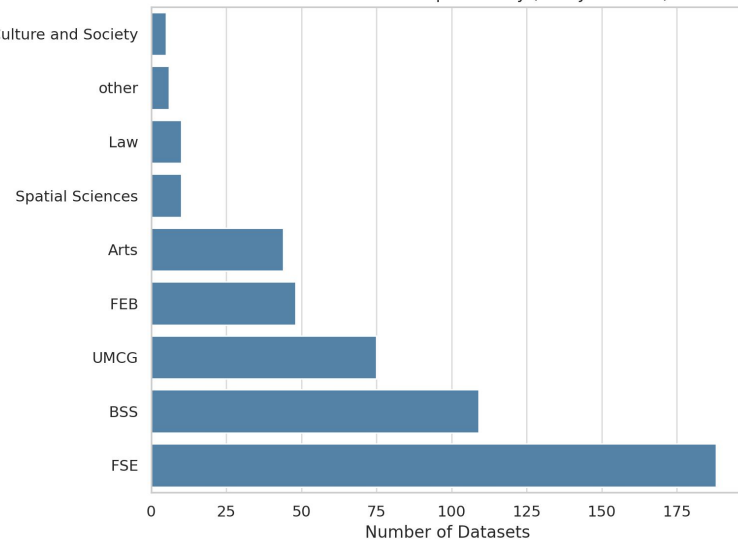
3 Organizations

20 Institutes

495 Datasets

Faculty

Datasets in DataverseNL per Faculty (until June 2025)



*Numbers are based on June 2025



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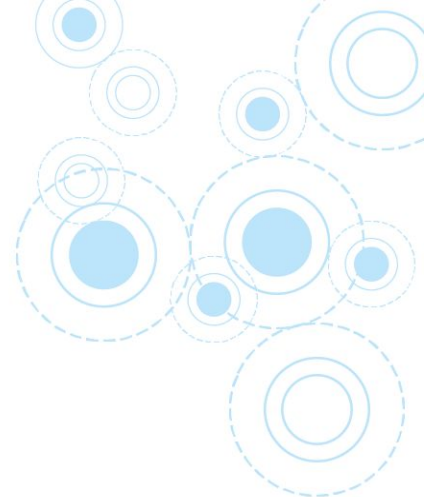
RDMS

Publishing metadata in DataverseNL - Goal

Enable users to publish research data metadata to DataverseNL directly from RDMS using the DataverseNL API, without **moving** or **duplicating** their data—supporting Open Science practices on a single platform and encouraging the use of DataverseNL.

RDMS

Publishing metadata* in DataverseNL



- Why DataverseNL?
 - Long time goal of publishing (meta)data with a DOI.
 - Previously explored DataCite & Pure
 - DataverseNL is the best fit: Provides DOI, already in place within the RUG and maintained by DANS.

*Metadata of the dataset which is the output of the Archiving workflow of RDMS, not any dataset

RDMS

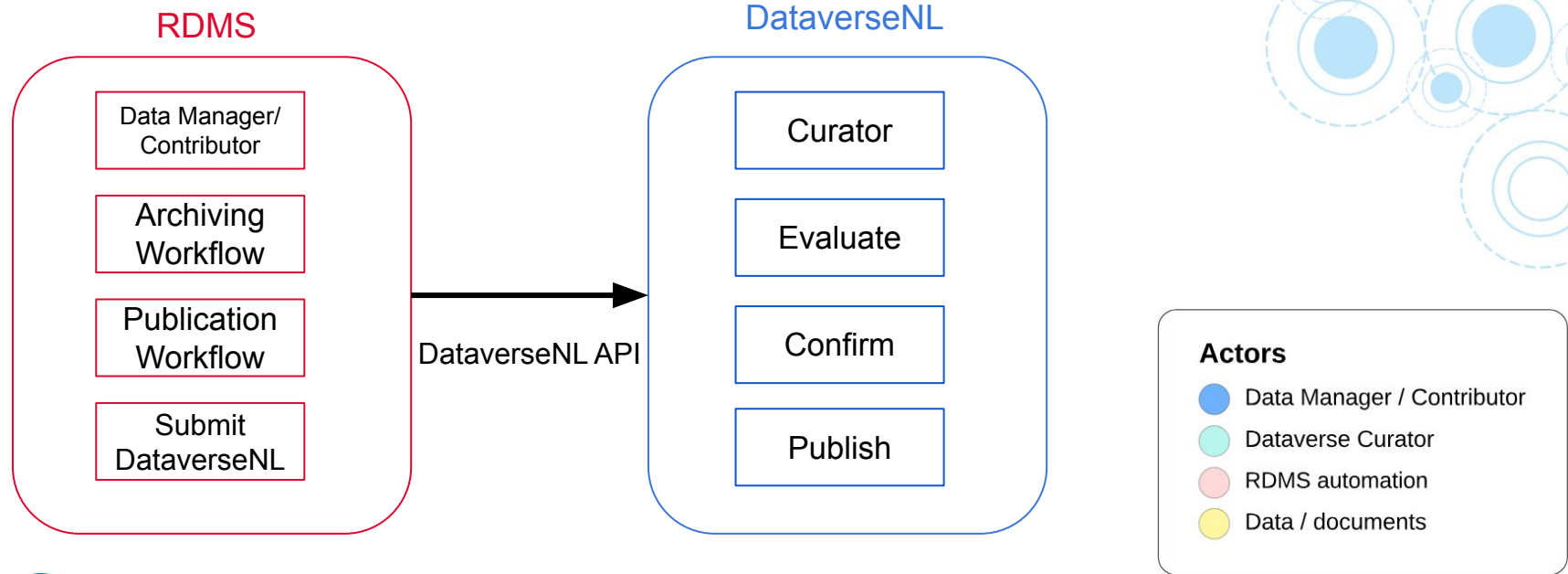
Publishing metadata in DataverseNL

- Started 1 year ago.
- Built a connection from the RDMS-test to DataverseNL-Demo
- Went through a test-feedback cycle with the members of the UB and the DCC
- Implemented in RDMS-test to DataverseNL
- Implemented in RDMS-prod to DataverseNL

Next Step:

Enable to users

From RDMS to DataverseNL



From RDMS to DataverseNL

RDMS

Data Manager/
Contributor

Archiving
Workflow

Publication
Workflow

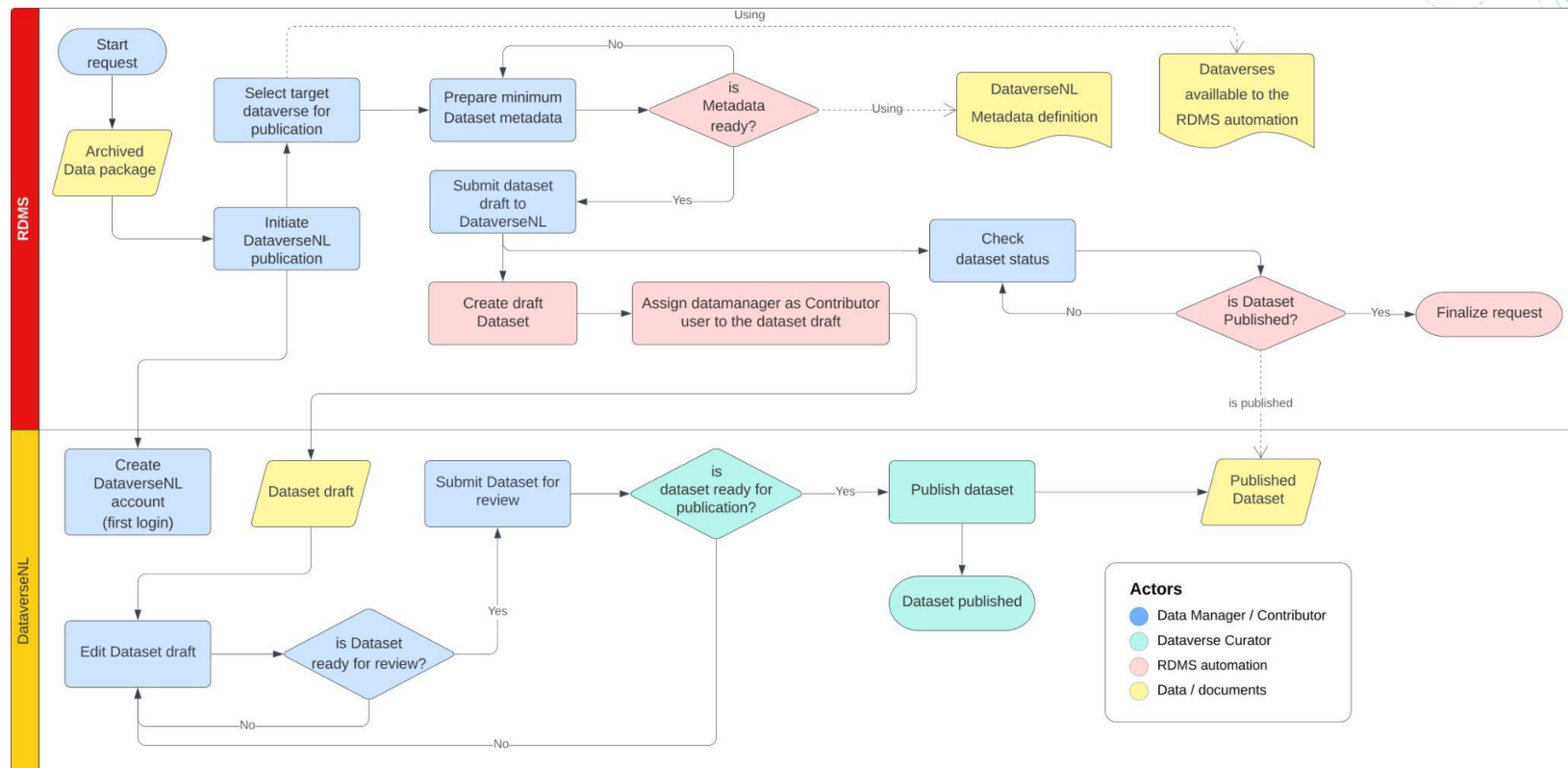
Submit
DataverseNL

The screenshot displays the RDMS Web Interface for the 'Publishing' workflow. The interface is divided into several sections:

- Workflows:** A sidebar on the left with a 'Filter by name...' search bar and a list of workflow categories: Archiving (selected), Requests, Publishing, and Projects.
- All projects > Publishing DOI requests:** The main content area is organized into five columns representing different stages of the workflow:
 - Archives:** Lists projects such as 'archive1727859144', 'bio_diversity_publication', 'Publication_test_archive_2', 'archive1726554270', 'GROUPA_project', 'archive1728023988', 'GROUPA_project', 'Archiving_test_2024_10_02', and 'GROUPA_project'.
 - Drafting:** Shows projects in the drafting stage, including 'Archive_after_delay_server', 'GROUPA_project', 'Dataverse NL (Demo)', 'RDMS Test Dataverse June 2024', 'Test_archive_demo_2024_10_02', 'GROUPA_project', 'Dataverse NL (Demo)', and 'RDMS Test Dataverse June 2024'.
 - Pending Approval:** Displays projects awaiting approval, such as 'Publication_test_archive_1', 'bio_diversity_publication', 'Dataverse NL (Demo)', 'PID doi:10.80227/PDVNL/U3KIQE', 'Publication_test_archive_4', 'bio_diversity_publication', 'Dataverse NL (Demo)', 'PID doi:10.80227/PDVNL/FD1VQZ', 'Test_archive_for_bert', 'bio_diversity_publication', 'Dataverse NL (Demo)', and 'PID doi:10.80227/PDVNL/PQ7F1D'.
 - Completed:** Shows projects that have been successfully published, including 'Publication_test_archive_3', 'bio_diversity_publication', 'Dataverse NL (Demo)', 'PID doi:10.80227/PDVNL/SDBUR', 'Publication_demo_2024_09_30', 'GROUPA_project', 'Dataverse NL (Demo)', and 'PID doi:10.80227/PDVNL/E05JH'.
 - Canceled:** A column for projects that have been canceled, currently empty.

Publication workflow on the RDMS Web Interface

Workflow illustrating the steps, roles and decisions points in publishing research data metadata from RDMS to DataverseNL



From RDMS to DataverseNL

Next

- Enable data access for the data of which the metadata is published in DataverseNL