KU Leuven RDR: Setting up an institutional research data repository in the Flemish open science context

euroCRIS Spring Membership Meeting 2023

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About LIBIS

• Part of KU Leuven Libraries and Leuven R&D
• Digital service provider managing KU Leuven wide solutions
  • Institutional research data repository
  • Current research information system
  • Library catalogue
  • Digital preservation platform
  • …
• Working with researchers in the design and development of scalable and sustainable RI
Content

• KU Leuven Context
• Road to RDR
• Infrastructure & integrations
• Using KU Leuven RDR
• RDR is FAIR-enabling
• Lessons learned and work ahead
KU Leuven Context
RDM @ KU Leuven

RDM Steering committee

• WG Policy
• WG Education & advice (→ RDM-CC)
• WG Infrastructure
  ➢ Active data → ICTS lead
  ➢ Data publication → LIBIS lead

• RDM-CC

KU Leuven resolutely opts for Open Science with Open Data approach

21 Jan 2022

With a new platform for archiving and publishing research data, Research Data Repository (RDR), KU Leuven is making it possible for researchers to keep their data safe for years while making it accessible to fellow researchers worldwide.

Research data is the precious raw material of many scientific publications. It often takes a lot of time and money to collect, structure and analyse the data. If scientists share that data with each other more, the benefits are enormous.

Making data public not only increases transparency and trust in scientific research. “Open Data is essential to enable the testing of reproducibility of research,” says Vice Rector for Research Policy Jan D’hooge. “It allows you to avoid redundancy in data collection – and the associated costs – and to maximise the exploitation of the available data. Open Data gives you more cost-effective, reliable science. Such an approach is therefore increasingly expected by funding authorities.”
What is KU Leuven RDR?

Custom support
RDR provides custom support for its users and detailed guidance online.

KU Leuven managed
The storage and servers are managed by and located at KU Leuven.

Institutional repository
RDR is KU Leuven's institutional research data repository for the publication of research datasets.

Across domains
RDR is open for data from all domains and disciplines practiced at KU Leuven.

Support
All domains
Storage
Road to RDR
What is KU Leuven RDR?
Infrastructure & Integrations
Infrastructure

• Open-Source Dataverse software
  • With our own adaptations:
    • Metadata model in line with international standards & Flemish requirements
    • Integrations with other LIBIS & KU Leuven systems
    • Automatic reporting to university’s, Flemish, and European metadata aggregators
Integrations

• Author Look-up
  • Look up authors in SAP
  • Auto-fill author fields

• Related Publication Look-up
  • Look up publications in Lirias
  • Auto-fill related publication fields

• Dataset Claimer
  • Register externally published datasets’ metadata semi-automatically

• Integration dashboard
Integration dashboard

• Connect active data management systems with RDR
• Pull instead of push
• Live since May 2023
• Currently supporting:
  • ManGO (iRODS), OSF, GitLab, Github.
• Coming:
  • SharePoint, RedCap, OneDrive
Using KU Leuven RDR
Who can access RDR?

**Everyone**
- Find published data
- Access openly available data
- Download openly available data

**KU Leuven personnel**
- Additionally:
  - Create draft datasets
  - Publish datasets
  - ORCID required
RDR data deposit workflow

Login
Go to rdr.kuleuven.be
Use KU Leuven login

Create dataset
Click on “Add Data”
Supply metadata
Upload files

Edit dataset
Edit file access settings
Additional metadata
Select a license

Submit for review
Once ready, submit for review
If returned, edit and submit again
RDR review workflow

**Metadata**
- Check if metadata is supplied in the correct format

**Files**
- README file
- Access settings on file level

**Terms**
- Presence of a license
- Correct license type (data/code)

**Approve/return**
- Approve if everything is in order
- Return to author if there are issues
RDR is FAIR-enabling
RDR is FAIR-enabling

F: Findable
- DOI
- Metadata
- File structuring

A: Accessible
- Open download infrastructure
- Preferred file formats

I: Interoperable
- Preferred file formats
- Metadata
- Documentation

R: Reusable
- License information
- Documentation
- Versioning
Lessons learned and work ahead
Lessons learned

• Right decision to go for Dataverse open-source software
• Intensive stakeholder consultation, from legal advisors to researchers
• Data publication not yet embedded in research practices

→ Continuous investment in the infrastructure, stakeholder consultation, and awareness creation and training of researchers remains needed
Work ahead

- Increase awareness of RDR and data publication with KU Leuven researchers
- Further simplify/automate data upload
  - Integrations with other active data systems (e.g. RedCap, SharePoint etc.)
  - Help establish push actions where possible
- Prepare for CoreTrustSeal certification
- Implement long-term preservation curation and workflow
KU Leuven RDR

PLATFORM:
rdr.kuleuven.be

SUPPORT:
kuleuven.be/rdm/en/rdr
rdm@kuleuven.be