Enabling data sharing in the Netherlands

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Permanent Forum of Research Officers
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DANS: the organisation

Mission: promote and provide permanent access to digital research resources

Institute of Dutch Academy and Research Funding Organisation (KNAW & NWO) since 2005

First predecessor dates back to 1964 (Steinmetz Foundation), Historical Data Archive 1989
DANS: 60 enthusiastic colleagues
DANS is about **keeping** data FAIR

https://dans.knaw.nl

**EASY**
Certified Long-term Archive

**DataverseNL**
to support data storage during research until 10 years after

**NARCIS**
Portal aggregating research information and institutional repositories
DANS centre of excellence: training and consultancy

Benefit from our knowledge on research data management by our **training sessions, consultancy** and information material.

**TRAINING**
DANS supports researchers (indirectly) in data management by providing training sessions. ➞

**CONSULTANCY**
DANS assists in developing data management policy and obtaining certification. ➞

**INFORMATION MATERIAL**
Watch the video 'Why share data' or download other information material. ➞
To share or not to share?

Motivations not to share:

To share or not to share?

Motivations to share:

• the norms that researchers are exposed to within their research circle or discipline

http://repository.jisc.ac.uk/5662/1/KE_report-incentives-for-sharing-researchdata.pdf
To share or not to share

External drivers:
- Publisher requirements (DAPs)
- Funder policies/mandates

Enabling the researcher to comply with open data requirements:
- awareness raising, training and support for data management
- infrastructure for preservation of and long-term access to the data
The Netherlands Open Science ambition

Key ambitions for 2020:
- 100% open access publishing
- optimal reuse of research data
- corresponding evaluation systems

Make research data optimally suited for reuse:

The aim of open science is that researchers reuse other parties' research data and services where possible and make their own data available as far as possible.

https://www.openscience.nl
Code of Conduct Research Integrity

- Published on 14 September 2018
- To keep up with international developments
- More prominent place for research data
- KNAW, NWO, universities, university medical centres, and institutes of applied research

http://www.vsnu.nl/files/documents/Netherlands%20Code%20of%20Conduct%20for%20Research%20Integrity%202018.pdf
Code of Conduct Research Integrity

Standards for good research practice:

• **describe** how the collected research data are organized and classified so that they can be verified and reused.

• **make** research findings and research data public subsequent to completion of the research. If this is not possible, establish valid reasons for their non-disclosure.

• contribute, where appropriate, towards making data findable, accessible, interoperable and reusable in accordance with the **FAIR principles**.

• the research must be described in sufficient detail for it to be possible to replicate the data collection and its analysis.

• **do justice to everyone who contributed** to the research and to obtaining and/or processing the data.
Institutions’ duties of care:

- As a supervisor, principal investigator, research director or manager, provide for an open and inclusive culture in all phases of research.
- Provide a research infrastructure in which good data management is the rule and is facilitated.
- Ensure that, as far as possible, data, software codes, protocols, research material and corresponding metadata can be stored permanently.
- Ensure that all data, software codes and research materials, published or unpublished, are managed and securely stored for the period appropriate to the discipline(s) and methodology concerned.
- Ensure that, in accordance with the FAIR principles, data is open and accessible to the extent possible and remains confidential to the extent necessary.
- Ensure that it is clear how data, software codes and research material can be accessed.
Funder requirements

All calls for proposals include the data management protocol.

The data management protocol consists of two steps:

• A data management paragraph in the research proposal in which the researcher should answer a number of short questions;

• A data management plan that must be submitted after the proposal has been awarded funding. The approval of this plan is a prerequisite for NWO disbursing the grant.

The costs of data management are eligible for funding and should be included in the project budget.

https://www.nwo.nl/en/policies/open+science/data+management
Dutch (infra)structure in cheese & art

Emmenthaler

Miro

Gouda

Mondriaan
Federated infrastructure for research data
Front office-Back office model

FO-BO model
- Division of labour
- Economies of scale

Back office
- Curation and preservation expertise
- Training of local data experts
- Long-term preservation infrastructure

Front office
- RDM guidance and training for local research community
- Data storage during research phase
Back office: Research Data Netherlands

https://researchdata.nl/en/

- DANS
- 4TU.Centre for Research Data https://researchdata.4tu.nl/home/

mission: to promote sustainable access to and responsible reuse of scientific research data in all phases of the research.
What do we have to offer?

- Certified trustworthy long-term data repositories
- Advice on policies and implementation of data stewardship
- Training, e.g. course “Essentials 4 Data Support“
- Dutch Data Prize

https://datasupport.researchdata.nl/en/
Front offices: universities and RDM

Developing RDM Policies
- Make data FAIR
- Write a DMP
- Guidelines for storing the data during and after the research

https://www.edugroepen.nl/sites/RDM_platform/Universiteit/Sitepages/Home.aspx (in Dutch)
Problems solved?

- Fragmentation and overlap in activities and approaches
- Re-inventing the wheel; not taking advantage of expertise and experiences
Objective

to support the most effective use of data in research and education by strengthening the knowledge pooling and knowledge sharing on all aspects of research data management

Approach

• obtaining a good overview of existing initiatives
• sharing successful approaches and results and promoting their re-use
• identifying gaps and putting them on the agenda

https://www.surf.nl/en/lcrdm
1. Facilities and data infrastructure
- Formulation of requirements, access, security, format, data standards (interoperability)
- Facilities required for various research phases and types of data
- How can we facilitate big data, long-term solutions, software sustainability?

2015
Q4
Preparations: Put together team, current situation, planning

Q1
Realisation phase

2016
Q2
Delivery: Statement of Requirements, overview of facilities, including long-term

Q3
Evaluation phase and determine follow-up

Q4
Realisation phase 2

2017
Q1
Evaluation phase 2

2. Legal aspects and ownership
- Who is allowed to do what with research data?
- Prerequisites and responsibility for keeping data available and accessible
- How to deal with confidential data?

2015
Q4
Preparations: Put together team, current situation, planning

Q1
Realisation phase

2016
Q2
Delivery: Model guidelines, decision tree for researchers

Q3
Evaluation phase and determine follow-up

Q4
Realisation phase 2

2017
Q1
Evaluation phase 2

3. Financial aspects
- Financing data management-related activities
- Sustainable funding
- Possibility/desirability of harmonising grant provider applications

2015
Q4
Preparations: Put together team, current situation, planning

Q1
Realisation phase

2016
Q2
Delivery: Cost sheet, costs definition, costs policy

Q3
Evaluation phase and determine follow-up

Q4
Realisation phase 2

2017
Q1
Evaluation phase 2

4. Support of the researcher
- Optimal organisation of the RDM triangle in the university sphere
- What is the role of a Research Data office?
- Determine the need for education and training for researchers per research phase

2015
Q4
Preparations: Put together team, current situation, planning

Q1
Realisation phase

2016
Q2
Delivery: List RDM training courses, map needs

Q3
Evaluation phase and determine follow-up

Q4
Realisation phase 2

2017
Q1
Evaluation phase 2

5. Awareness / Engagement
- Stimulate collaboration
- Narrow the scope of those involved
- Exchange knowledge

2015
Q4
Preparations: Put together team, current situation, planning

Q1
Realisation phase

2016
Q2
Delivery: Virtual platform, list RDM projects, SWOT analysis, engage experts

Q3
Evaluation phase and determine follow-up

Q4
Realisation phase 2

2017
Q1
Evaluation phase 2

Data Archiving and Networked Services
Community Building

72 working group members, dealing with 17 topics in the 5 focus areas

Visible, knowledgeable and efficient RDM community has been built, under the LCRDM umbrella
Concrete products

<table>
<thead>
<tr>
<th>TOPICS</th>
<th>PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Round Table Financers &amp; Governance</td>
</tr>
<tr>
<td>Research Support &amp; Advise:</td>
<td>• Inventory DMP templates</td>
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<td></td>
<td>• Document DMP Basic Criteria</td>
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<td>• Inventory DMP support (tips &amp; tricks)</td>
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<td>• Inventory DMP reviewers (via questionnaire)</td>
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<td>• Inventory &amp; Evaluation DMP tools</td>
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<td>• Advise DMP Tooling</td>
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<tr>
<td>FAIR data</td>
<td>• Inventory FAIRness Data-repositories in NL (TU Delft)</td>
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<td>• Position Paper FAIR Data</td>
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<tr>
<td>Training</td>
<td>• Inventory Training – wiki</td>
</tr>
<tr>
<td></td>
<td>• Overview common elements curricula –wiki</td>
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<tr>
<td></td>
<td>• Advise on Profiles related Training portfolio’s</td>
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<tr>
<td></td>
<td>• RDM-training MOOC</td>
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<tr>
<td>Safe data</td>
<td>• Software sustainability – advise</td>
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<tr>
<td></td>
<td>• Informed Consent Examples</td>
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<tr>
<td></td>
<td>• Decision Tree Privacy related research &amp; Data sharing</td>
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<tr>
<td>Engagement:</td>
<td>• Overview RDM-requirements funders</td>
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<tr>
<td>RDM-eisen funders</td>
<td>• Position paper Incentives</td>
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<tr>
<td>Incentives</td>
<td>• Overview Use-Cases</td>
</tr>
<tr>
<td></td>
<td>• Teaching modules, information material</td>
</tr>
<tr>
<td>Use Cases</td>
<td>• Inventory &amp; interviews</td>
</tr>
<tr>
<td>Shades of Open</td>
<td>• Mind Map</td>
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<tr>
<td>Engagement Sessions</td>
<td>• As appears</td>
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Problems solved?

- Adoption of outcomes by stakeholders
- Creation of a structural RDM collaboration
- Funding
- Human resources in the data domain
- Connection with the researchers
Main takeaways

• Netherlands in the European setting as an inspiring use case for your discussions on data sharing

• Open science and data sharing as part of that will only grow in importance

• Data sharing will make science more cost effective, will advance science and will help us deal with the big societal challenges worldwide

• In order to achieve this we need to:
  • change academic cultures and create incentives for researchers to start sharing their data
  • enable researchers to share their data through data management policies, training and guidance, and LTP infrastructure
Thank you for listening

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