

FACULTEIT DER BÈTAWETENSCHAPPEN

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# **RDM Beleid BETA**

#### Over dit document

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2016-11-28 <u>BETA RDM</u> policy	BETA RDM Policy			
2020-02-17 <u>VU beleid RDM</u>	VU Beleid Research Data Management			

### Versies

#	Datum	Auteur(s)	Aanpassingen
0	05-06-2020	Christine Dijk, Brett Olivier	Eerste concept
1	15-09-2020	Christine Dijk, Brett Olivier	Verwerking comments beleidsteam en Guus Schreiber
2	15-09-2022	Brett Olivier, Ruurdtje Hoekstra, Demet Yazilitas	Update text and finalize faculty role descriptions
3	10-11-2022	Brett Olivier, Ruurdtje Hoekstra, Demet Yazilitas	Release candidate 1 - circulate for comment
4	17-11-2022	Brett Olivier, Demet Yazilitas	Discuss updated version with Guus/Aletta en Maaike for feedback
5	02-12-2022	Brett Oliver, Demet Yazilitas	Presentation AHO for advice
6	15-12-2022	Brett Oliver, Demet Yazilitas	Presentation FGOV to inform
7	<u>16-12-2022</u>	Brett Oliver, Demet Yazilitas	Formalization of the policy by the Faculty Board

#### **Update Faculty Guidelines**

In February 2020, the VU adopted its RDM policy, as stated in <u>VU Beleid Research Data</u> <u>Management</u>. In line with this update the faculty guidelines for RDM from 2016 have been updated as well. Below you find the specification thereof for the Faculty of Science. To facilitate the update of the guidelines, the data steward and responsible policy officers gathered input from the departments in order to get a clear image of which changes needed to be made in the faculty guidelines. The central question in this guideline is: how can we make sure that all the RDM responsibilities are met in such a way that the data which is used for research in the Faculty of Science is made FAIR? We specifically focus on issues that are different for the faculty in comparison with the VU broad policy.

#### FAIR data principles

Open data is a vital component of open science and relies on data being well managed throughout the data and research cycles. The FAIR data principles<sup>1</sup> provide a framework that aims to enhance the reuse of data through the implementation of good research data management practices. The foundation of the FAIR principles is that it should be possible to find and use data in an automated way, in addition to manually (or not at all). While good data management is not the main goal of the FAIR principles, it is an important tool that can contribute directly to new scientific insight and innovation.

- Findable: data should be discoverable by humans and machines
- Accessible: data should be easy to obtain with well described terms of use
- Interoperable: data should be prepared such that it can be combined with other datasets
- Reusable: datasets should be made reusable by others

How to achieve FAIRness<sup>2</sup> is open to interpretation, in particular, FAIRification process can differ between fields of expertise, making its implementation discipline or domain specific.

## General principles for RDM at the Faculty of Science

The following general principles are guidelines on how to become more FAIR and to shape the FAIRification process in the Faculty of Science. The faculty of Science thereby follows and implements the roles and responsibilities which are stated in the VU Beleid Research Data Management.

1. Published data

<sup>&</sup>lt;sup>1</sup> <u>https://www.nature.com/articles/sdata201618</u>

<sup>&</sup>lt;sup>2</sup> <u>https://www.nature.com/articles/sdata2018118; https://www.go-fair.org/fair-principles/</u>

When data are used in a publication they should be archived within three months after (online) publication in a way that ensures maximum accountability.

#### 2. Data storage

Before publication, all research data and related materials collected should be properly stored (see below), preferably on the central file storage facilities provided by the university or faculty, or something with a similar level of data redundancy and backup capabilities, but at the very least in two physically separate locations to prevent unnecessary data loss. Only when data is used in a publication is archival required.

#### 3. Who stores?

All staff members are responsible for appropriate data storage. This also applies to PhD students and postdocs. Bachelor and Master students should be instructed to follow the new storage rules, and are required to submit a folder to their supervisor, containing their thesis and the data and research materials upon completion of their project. Subsequently, their supervisor will ensure all data is kept in accordance with all guidelines.

#### 4. Storage duration

In principle, all (raw) data and relevant metadata used to support published work should be stored for at least 10 years after the publication date. When practical, legal or privacy considerations do not allow for (some) of the raw data, or only more refined data to be saved, this should be clearly documented in a way that ensures maximum accountability. Researchers are responsible to examine with help of VU RDM Support, departmental and faculty data stewards, or the departmental RDM coordinator which platform is the most appropriate to store their data. For more information on these roles see Appendix 1.

#### 5. Data belonging to other parties

In case you make use of data that are owned by other organizations, universities or persons who object to long-term centralized storage or archiving of the data, this should be documented as part of the meta-data associated with a project or, publication and indexed in a metadata repository, such as PURE.

#### 6. Anonymity

Data should be stored in such a way that it is not possible to track down personal details from the data. Some departments will have their own protocol to follow, but in any case the relevant legislation on the matter should be considered (see VU Policy on <u>RDM page on <u>VUnet</u>).</u>

#### 7. Department RDM protocol / Documenting RDM

Every department is responsible for establishing a RDM best practices document. Every PI is responsible for documenting his or her own RDM workflow which can partly or fully derive

from the departmental best practices, and which applies to all people under his or her supervision. Typically, this will simply formalize already established and practiced workflows. The resulting documentation can collectively then be used directly by researchers when completing a research data management plan and preparing new project/grant proposals<sup>3</sup>. Each department is encouraged to collect this information and place it in a centralized repository readable for the whole department (or faculty) to promote the exchange of best practices. The contents of these best practices documents can include, for example, conventions for the creation of hierarchical folder structures and logical file names, versioning, data storage facilities, domain specific identifiers, ontologies and metadata schemas for data indexing and citation.

#### 8. Hardship clause

Any exceptions to the above guidelines shall be decided upon by the faculty board upon consultation with the department head.

#### 9. Registration of data in PURE

Description of datasets (metadata) belonging to published papers will be indexed in the VU metadata repository, PURE.

#### 10. RDM coordinator and faculty data stewards

Every department has a RDM coordinator, who is responsible for providing information about RDM and FAIR principles within their department and collecting the best practices as mentioned at point 7. Additionally, there are also data stewards on faculty-level. They are responsible for managing questions from scientists which cannot be handled at department-level and communicate relevant RDM developments.

#### 11. Faculty RDM network

The network consists of RDM coordinators and data stewards. It supports the RDM coordinators with executing their tasks. Furthermore, the network facilitates exchange of best practices, builds up knowledge on good RDM-practices, and makes an inventory of the need for tooling and training within the departments and faculty.

<sup>&</sup>lt;sup>3</sup> The VU provides access to DMPonline which can be used to simplify this process.

# Appendix 1 Definition of RDM roles in the faculty of Science

#### **Data Stewards**

Work at either a faculty or departmental level where their roles and responsibilities overlap but can be differentiated in primary focus and scope. Data stewards are responsible for policy development and implementation, communication of relevant information on RDM and FAIR, participation in VU RDM networks, consultation and support on writing data management plans. They are also involved in the management, operation and support of VU RDM infrastructure<sup>4</sup> and assisting researchers in making their data FAIR through the use of good data management practices. In addition, data stewards coordinate, or assist in the development of, RDM training programmes and provide input on RDM related policies.

#### **RDM** coordinator

Responsible for writing and implementing a RDM department protocol and collecting best practices to share with the department, support on writing data management plans and participating in the faculty RDM network. Raise awareness of RDM policy in their respective sections and provide input into the development of faculty RDM policy, training programs and infrastructure.

<sup>&</sup>lt;sup>4</sup> This includes ResearchDrive, DataversNL, Yoda and DMP Online