



Coffee Lectures

# Research data management strategy

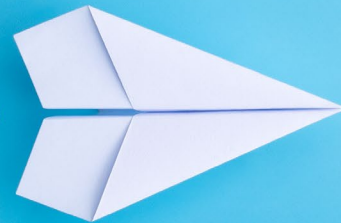
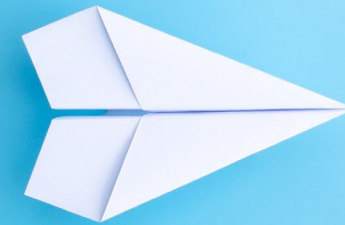
A vital pillar for your research group

Fabian Schmid

01 November 2023

# Knew knowledge in 10 minutes

- Learn about benefits of having a research data management (RDM) strategy at hand
- Introduction to key aspects of the RDM strategy to prepare the implementation in your research group



# What is a RDM Strategy?

- **Agreements about RDM practices** that will support researchers with **handling of research data** and related activities.
- It should be considered as a **central pillar** that **further**s and **sustains concerted RDM practices** among its members.
- An RDM strategy documents data management practices at a **level beyond individual research projects**.
- Can be effective **at various organisational levels** (i.e., individual group, institute, department or entire institution).

# What are the benefits of a RDM strategy for a research group?





# The benefits of a RDM strategy



Concerted handling of research data



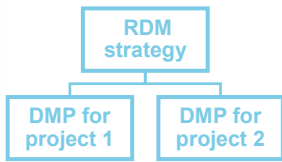
Simplifies handover of data and documentation to group leader



Facilitates collaboration inside and outside of the group



Primer for new group members



Extract information for a DMP



Image: Adobe Stock #437404171

# The benefits of a RDM strategy



**Concerted handling** of research data



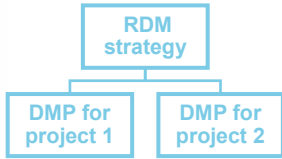
**Simplify**



**Factor**



**Primary**



**Extract information for a DMP**

## Further considerations

- An RDM strategy **takes time** to establish
- **Occasionally needs adaptation** for instance due to new conditions that arise from new research projects
- Swiss law and **regulations** from respective institutions and funding agencies **need to be considered as well**



Image: Adobe Stock #437404171

# What are key aspects of the RDM strategy?

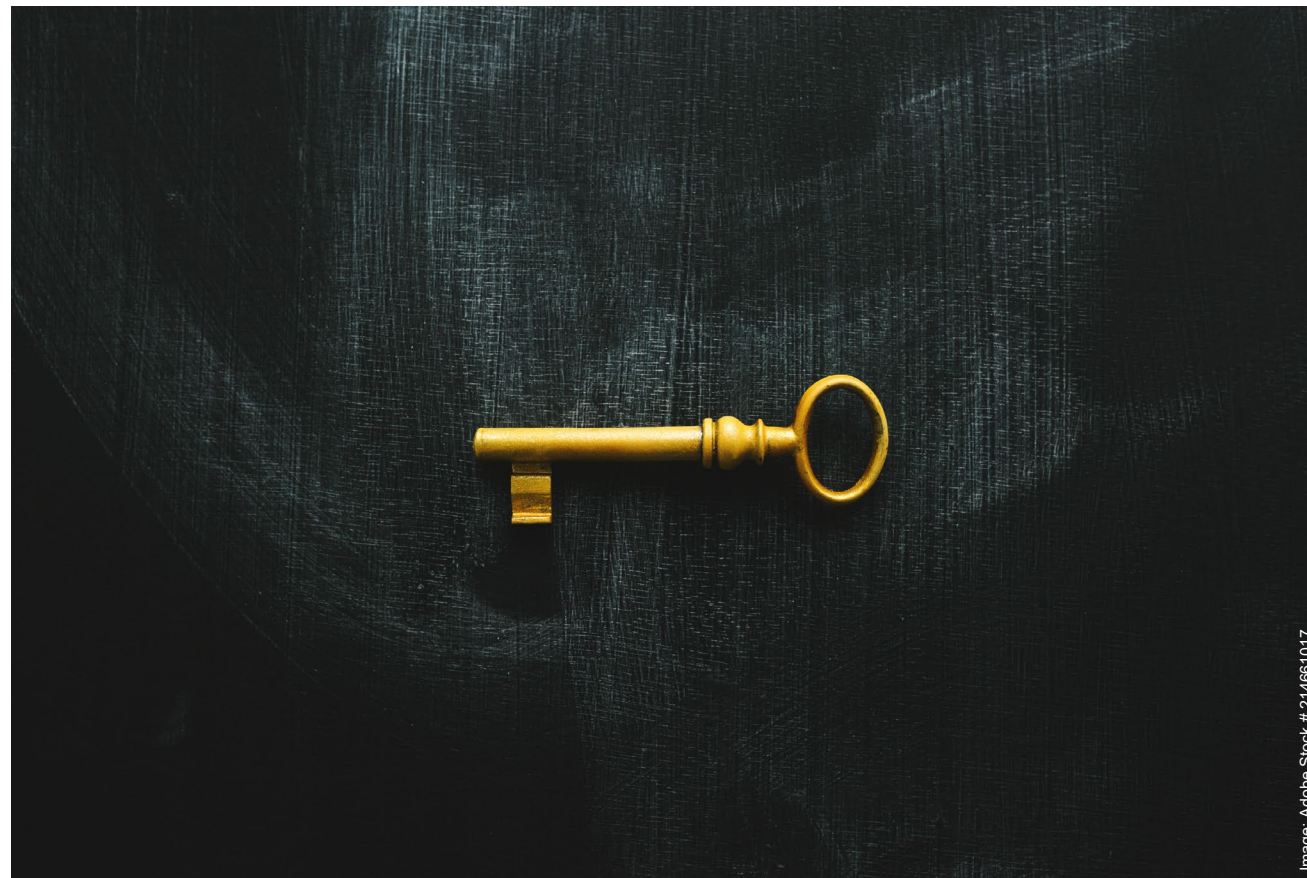


Image: Adobe Stock # 214661017

# Data types and metadata



Research data type	Data type ID	Generation method	Method ID	File format	Collected metadata	Metadata standard	Data quality control
Interview data		Recordings			Date, participant's name or gathered Metadata is described in README file: [name]		
Seismic events		Seismographic recordings					
Microscopic 3D cell images		Laser scanning confocal microscopy					
...							

(excerpt of exemplary template on wiki, [section 2 “Data collection and documentation”](#), paragraph 2.1)



# File naming convention



Research data type	File name schema	Schema key
Microscopic 3D cell image	[date]_[specimen]_[microscope]_[signal]_[number] example file name: 20210623_NIH3T3mut_Isconf23_GFP_01.tiff	<ul style="list-style-type: none"><li>• date: date of image capture (in format YYYYMMDD)</li><li>• specimen: cell line name (abbreviations: mutant "mut", wild type "wt")</li><li>• microscope: type of microscope (abbreviations: Zeiss laser scanning confocal "ZSIsconf", Leica spinning disk confocal "LCspindsk")</li><li>• signal: source of light or dye selected (abbreviations: green fluorescent protein "GFP", Alexa350)</li><li>• number: number of images (from 01 to 10)</li></ul>
Tabular data sheet with survey data	[date]_surveydata_[cohort]_[topic]_[year_week] example file name: 20190522_surveydata_cohort15_householdincome_2019-08	<ul style="list-style-type: none"><li>• date: date of file creation (in format YYYYMMDD)</li><li>• surveydata: type of data</li><li>• cohort: number of survey cohort, in accordance with the study's codebook/log files</li><li>• topic: topics covered in the respective survey wave, in accordance with the study's codebook/log files</li><li>• year_week: Year and week when the survey wave was done (in format YYYY-WW)</li></ul>
...		

(excerpt of exemplary template on wiki, [section 2 "Data collection and documentation"](#), paragraph 2.4)

# Others

- File folder organisation
- RDM Responsibilities
- Data classification and data access
- ...



# Our Support



- Wiki: Instructions for drafting an RDM strategy  
<https://unlimited.ethz.ch/x/dSiSCw>
- Wiki: Template for an RDM strategy with generic examples (i.e. exemplified text and tables to adapt to individual requirements)  
<https://unlimited.ethz.ch/x/rSiSCw>
- Seminars about the Implementation of an RDM strategy (so far carried out with members of the [Data Stewardship Network \(DSN\) at ETH](#))  
Link to the [official news message of the first seminar on 27 June 2023](#)
- Individual consultation for research groups



# Thanks for your attention!

Next Coffee Lecture:

## How plagiarism detection software works

08 November 2023, Webinar via Zoom  
[www.library.ethz.ch/coffee-lectures](http://www.library.ethz.ch/coffee-lectures)



Dr. Fabian Schmid  
Research Data Management and Digital Curation  
fabian.schmid@library.ethz.ch

ETH Library  
Research Support Services

Weinbergstrasse 74  
8092 Zurich

[www.library.ethz.ch/rdm](http://www.library.ethz.ch/rdm)  
[data-management@library.ethz.ch](mailto:data-management@library.ethz.ch)

