A Tale of Three Data Stewards

Lessons Learned by the Cross-Disciplinary Data Stewardship Team at UniVie

PHAIDRAcon 2023
presented by Monika Bargmann, Emily J. Kate, and Michael Feichtinger

Goals and Target Audience

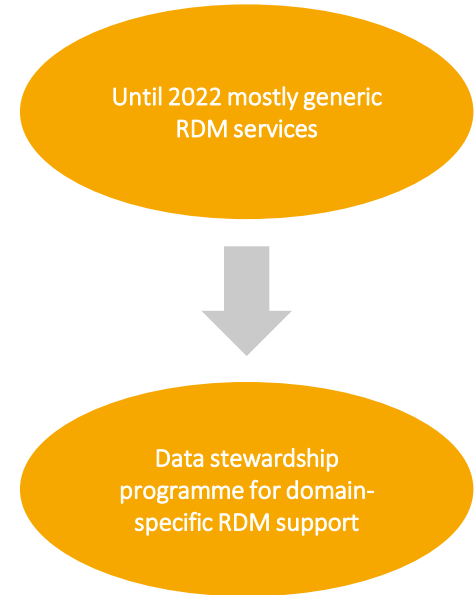- **Goals of the Data Stewardship Program**

  - Acting as the first point of contact

  - Helping researchers access the University's diverse services and infrastructure

  - Providing domain-specific research data management (RDM) support

  - Raising awareness for responsible research focusing on RDM

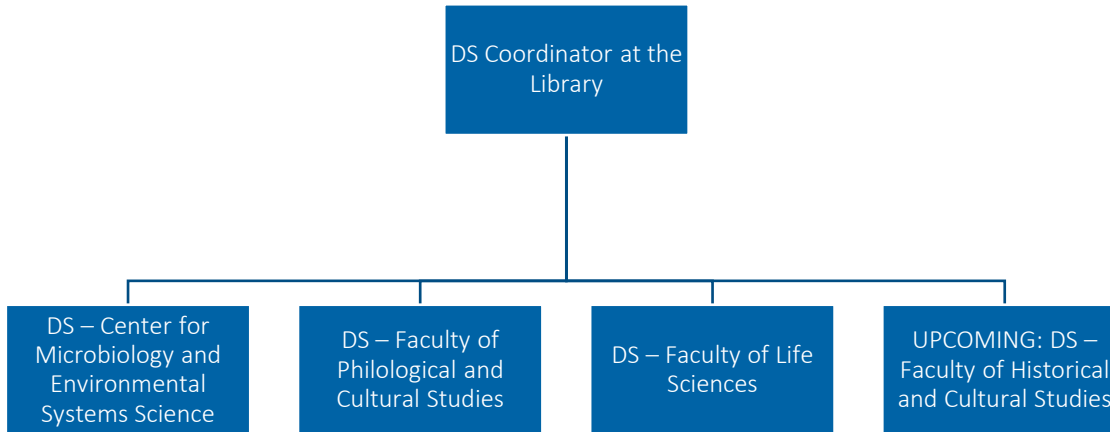 - Fostering reproducibility practices

- **Target Audience**

  - Researchers and scientific staff

  - PhD students and PostDocs

  - Bachelor's and Master's students

  - General staff

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Research Data Management at the University of Vienna

- **University-wide Research Data Management WG – strategic development**
  - Coordinated by the University Library
  - Vice-rector for Digitization and Knowledge Transfer
- **Research Data Management (RDM) services – joint effort** of the:
  - Library
  - Computer Center
  - (Selected) Faculties and Research Centers – Data Stewards
  - Department of Innovation and Digitalisation in Law – Legal Helpdesk for RDM
  - Research Support and Career Development
  - Center for Teaching and Learning
  - Quality Assurance

Until 2022 mostly generic RDM services

Data stewardship programme for domain-specific RDM support

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Data Steward Network: Discipline-Specific RDM Support

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                    ┌─────────────────────────┐
                    │  DS Coordinator at the  │
                    │         Library         │
                    └─────────────────────────┘
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| DS – Center for Microbiology and Environmental Systems Science | DS – Faculty of Philological and Cultural Studies | DS – Faculty of Life Sciences | UPCOMING: DS – Faculty of Historical and Cultural Studies |

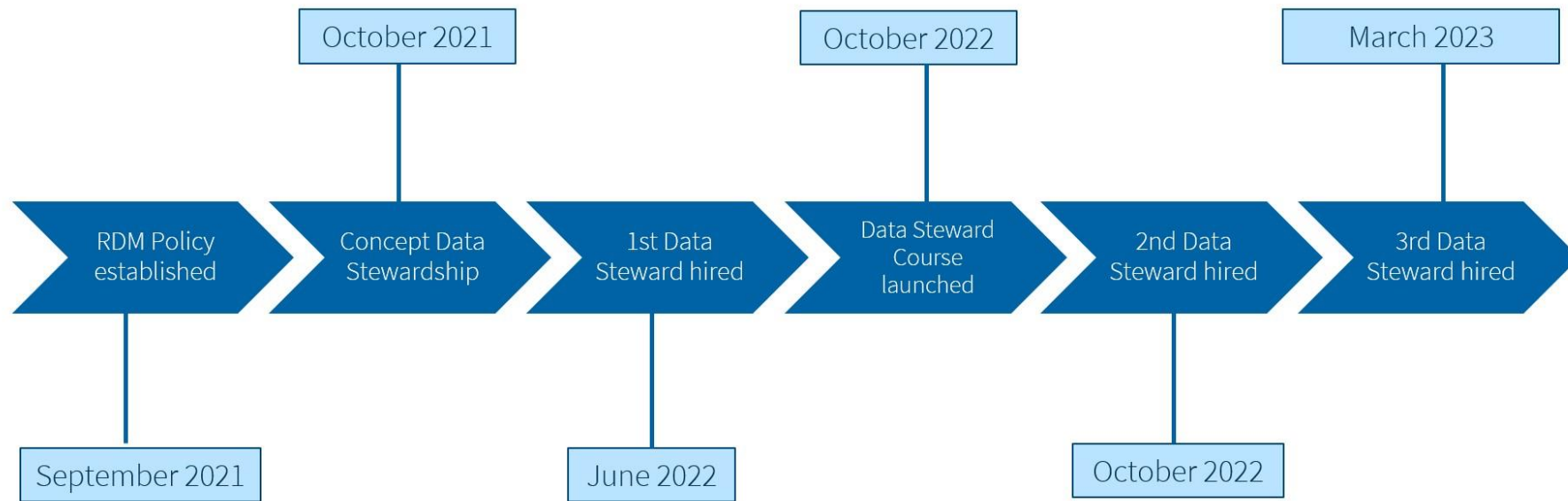**Main responsibilities:**

- Support and consulting
- Training
- Needs assessment
- Workflow development

Data stewards are embedded at the faculties and research center.

- **Data Steward (DS) Network** (part of the Research Data Management team)

- **"Data Steward" certificate course** in the first year on the job

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Data Stewardship Development

| October 2021 | | October 2022 | | March 2023 |

| RDM Policy established | Concept Data Stewardship | 1st Data Steward hired | Data Steward Course launched | 2nd Data Steward hired | 3rd Data Steward hired |

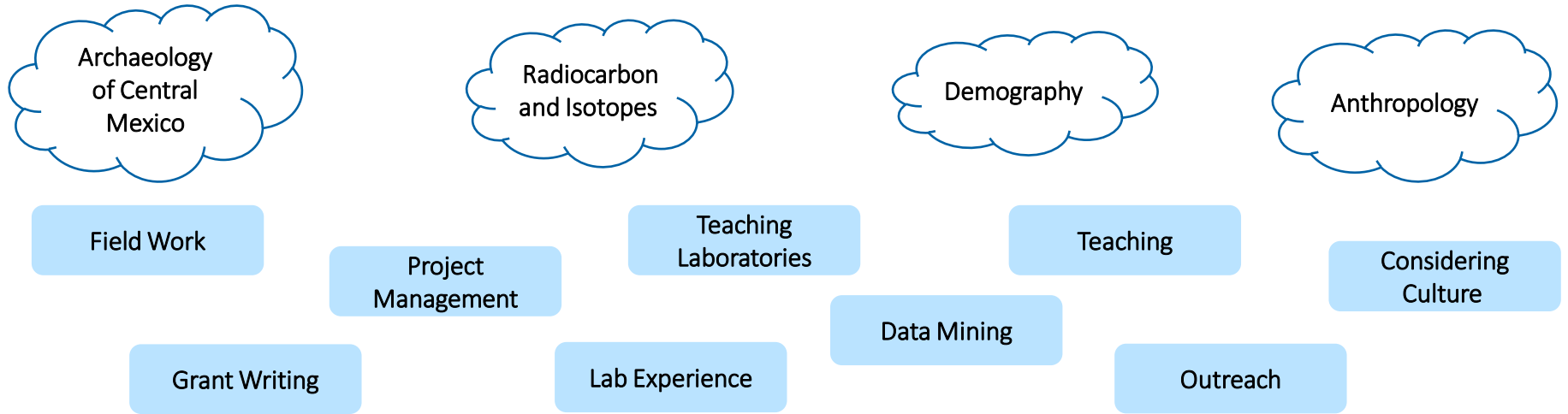| September 2021 | | June 2022 | | October 2022 |

Becoming a Data Steward

PhD in Chemistry
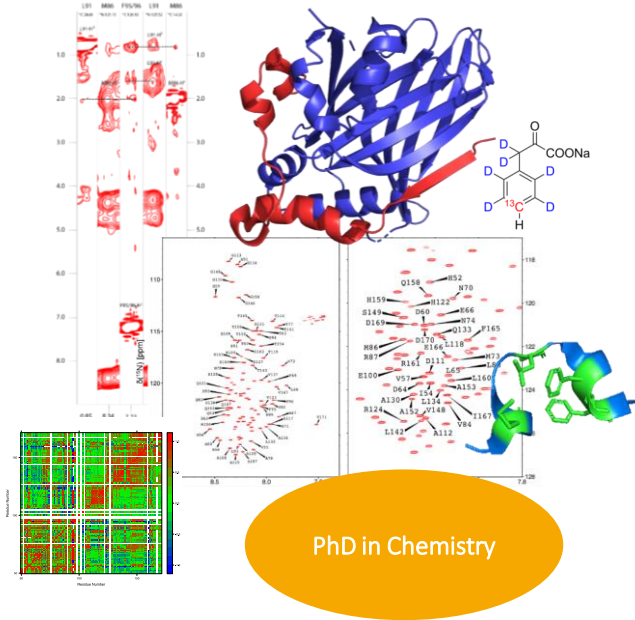
- Data Steward:
  - Still working in science but with less precarious working conditions
  - Co-development of a new role at the University
  - Teaching/education
  - Involved in various different projects

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My Background

PhD in Anthropology and Demography

Archaeology of Central Mexico

Radiocarbon and Isotopes

Demography

Anthropology

Field Work

Project Management

Teaching Laboratories

Teaching

Considering Culture

Data Mining

Grant Writing

Lab Experience

Outreach

Why Data Stewardship?

- I'm (scientifically) nosey.
- I like helping others.
- I like puzzles.
- Good things need all of us.

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My Background

Connections & curiosity
- focus on „translation" between e.g. software developers and researchers
- bringing people and information together
- being interested in nearly everything

Communication, Publishing
- journalist
- blogger, social media editor
- co-editor OA journal
- co-editor discipline-specific repository
- mainly publications in library science

Library, Archives, Documentation
- studies in Eisenstadt and Stuttgart
- field of diploma thesis: information ethics (access to legal information in Austria)
- certificate courses „data librarian" and „data steward"
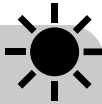- self-employed IT project coordinator

German studies
- studies in Vienna
- field of diploma thesis: modern german literature (Star Trek fan fiction)

Urban and regional development
- studies in Vienna (ongoing)
- field of master thesis: monitoring, data management, urban heat stress

Forest, Environment, Nature, Climate
- certified forest educator
- certified forest & culture guide
- various courses, e.g. mobility, renewable energy, wood ants, forestry, soil protection, climate change, bat protection…

International Involvement and Outreach

June 2022 to October 2023

12 Lectures and Posters

- OpenAIRE Coffee Lecture
- RDA Plenary and International Data Week
- Österreichischer Bibliothekskongress
- DARIAH Annual Event...

6 Invited International Workshops and Consultations

- Portuguese RDM Forum
- Charles University in Prague, Czech Republic
- Annual Open Science Festival, Germany
- Consortium of Slovenian Universities "SPOZNAJ", Slovenia
- Open Science Summer School, Slovenia
- University of Novi Sad, Serbia

Sharing expertise and gaining recognition.

Learning from international best practices.

Needs Assessment and Community Engagement

Generating solutions to under recognized challenges:

- Keeping data workflows organized despite researcher changeover
  - Implementing tools that streamline good RDM
- Developing consistent RDM training programs for Ph.D. students
- Encouraging open data practices, in addition to open publication

Goals

1) Introduce the Data Steward
2) Present Existing Resources
3) Evaluate Needs

Target Groups

- PIs and Senior Scientists
- Postdocs
- PhD Students

Approach

- Departmental Meetings for PIs
- Postdoc Townhall
- PhD Student Roundtable

Why a Data Steward?

- Scientific Knowledge
- Cultural Understanding
- Neutral Resource

DR. EMILY J. KATE _____ IS YOUR DATA STEWARD

Postdoc Event Meet your Data Steward

LEARN MORE ABOUT RESEARCH DATA MANAGEMENT RESOURCES AT THE UNIVERSITY OF VIENNA AND THE DATA STEWARD PROGRAM!

THE DATA STEWARD WANTS TO HEAR ABOUT YOUR PROBLEMS!

TELL YOUR FRIENDS AND YOUR ENEMIES!

ALL FACULTY OF LIFE SCIENCES POSTDOCS ARE INVITED!

6 JUNE 2023
3 PM – 4 PM
ZOOM EVENT
REGISTRATION REQUIRED

HI THERE!

I'M EMILY, YOUR NEW DATA STEWARD.

I KNOW YOU'RE BUSY, SO I'LL MAKE THIS QUICK. I'M HOSTING A DIGITAL TOWNHALL MEETING AND I WOULD LOVE FOR YOU TO COME!

I'LL TELL YOU ABOUT THE UNIVERSITY RESEARCH DATA MANAGEMENT RESOURCES AVAILABLE TO YOU. HOPEFULLY WE CAN MAKE YOUR WORK A LITTLE EASIER.

BUT I WANT TO HEAR ABOUT YOU TOO! COME TELL ME ABOUT YOUR WORK AND HOW I CAN HELP.

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Over 600 Researchers Reached.

Faculty Needs Comparison

Faculty of Life Sciences
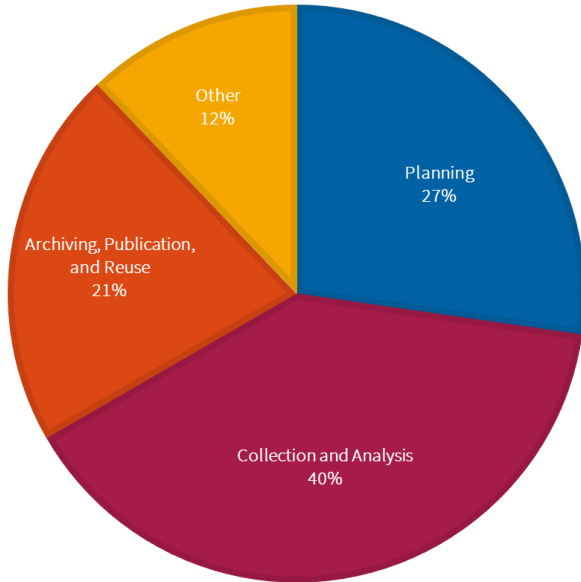
- Other 12%
- Planning 27%
- Archiving, Publication, and Reuse 21%
- Collection and Analysis 40%

Centre for Microbiology and Environmental Systems Science

- Archiving, Publication, and Reuse 21%
- Planning 26%
- Collection and Analysis 53%

Faculty of Philological and Cultural Studies

- Archiving, Publication, and Reuse 48%
- Planning 30%
- Collection and Analysis 22%

Distributions derived from 79 research data management requests made to the data stewards (August 2022-August 2023). Distributions reflect number of requests, as opposed to time allocated to the request.

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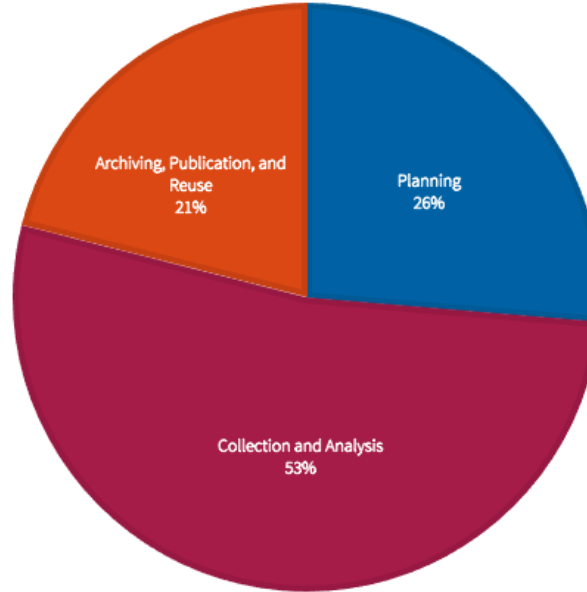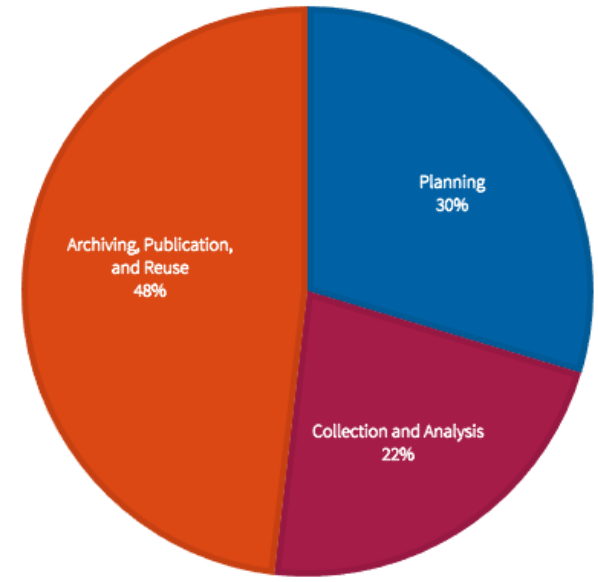
Observations

- Humanities focus more on archiving

- Sciences are more invested in data collection and analysis

- Humanities need more conversations about what is considered "data"

- The more homogenous the unit, the greater the interest in scalable workflows

- Graduate students are an excellent mechanism for spreading new ideas

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Research Group Organization and Data Workflows at CeMESS

- Top priority according to initial needs assessment

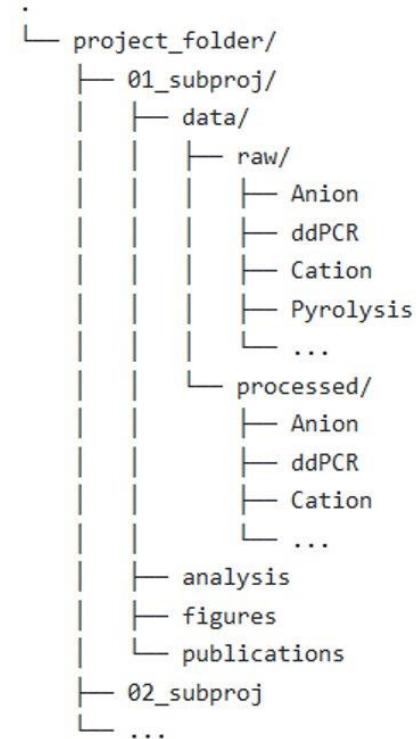- Bottom-up approach: starting with individual research groups

- Goals:
  - Clearly defined folder structures and file naming
  - Improvement of metadata and documentation
  - Easy data sharing workflows

- Role of the data steward:
  - Provided expertise and training
  - Facilitated communication at group meetings
  - Engineered transfer and upscaling of results

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.
└── project_folder/
    ├── 01_subproj/
    │   ├── data/
    │   │   ├── raw/
    │   │   │   ├── Anion
    │   │   │   ├── ddPCR
    │   │   │   ├── Cation
    │   │   │   ├── Pyrolysis
    │   │   │   └── ...
    │   │   └── processed/
    │   │       ├── Anion
    │   │       ├── ddPCR
    │   │       ├── Cation
    │   │       └── ...
    │   ├── analysis
    │   ├── figures
    │   └── publications
    ├── 02_subproj
    └── ...
```

Archiving Dynamic Web Resources at the PhilKult

- Challenge: maintaining databases and websites and archiving web resources

- Goals:
  - Preserving non-traditional research output
  - Getting researchers to plan ahead
  - Fulfilling funders' requirements

- Role of the data steward*ess:
  - Identifies need with institutes
  - Connects researchers with ZID (project "mūsēum" and crawler trials)
  - Supports researchers with data management planning
  - Prepares guidelines for facilitating long-term preservation of websites

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WHAT YOU NEED TO KNOW ABOUT...

ARCHIVING WEBSITES

HOW TO FACILITATE LONG-TERM PRESERVATION OF WEBSITES AND WEB APPLICATIONS IN YOUR RESEARCH PROJECTS

Cover image: Canva

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Discipline-Specific Training: Courses for PhD Students

Life Sciences and CeMESS

In Collaboration with Doctoral Schools

- VDS MES
- VDS CoBeNe
- VDS PhaNuSpo
- VDSEE

Blended and Flipped Learning Approaches

Hands-On and Activity Based

Pre- and Post-Learning Assessment

An Open Educational Resource

"The specificity of the resources you addressed was very much appreciated."

"The online self-learning, as well as the course itself had an unusual, informal, very nice format, I really enjoyed."

Philological and Cultural Studies

Introduction to RDM for Daily Work

Online and Flipped Learning Approaches

Upcoming:

- In-Person Courses in varied Locations
- Advanced Courses
- DARIAH Campus
- Collaboration with HistKult Faculty

"Hoher Neuigkeitswert (inhaltlich), Hands-on, interaktiv"

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Our Tips and Tricks

- **Leverage institutional expertise**
  - Create a formal network
  - Embrace rapid communication

- **Assess community needs**
  - Use existing data
  - Conduct your own investigations
  - Ask people to complain!

- **Build relationships**
  - Be present, available, and visible
  - Find your allies

- **Ensure possibilities outpace policies**
  - Easy comes before mandatory
  - Not just what we change, but how we change

- **Always keep learning**
  - RDA interest groups
  - ERASMUS exchange

- **Be kind and offer snacks**
  - Be ready to crack some jokes
  - Juice boxes are powerful

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Next Actions

- Legal Helpdesk for Research Data Management

- Growing Commitment by PIs and Departments to PhD Training
  - Commitment to RDM Course Enrollment
  - Mandatory Data Management Plans for PhD projects

- Continued Community Engagement
  - Data Champion Program Development

- Implementation of Electronic Lab Notebook Solutions

- Expanding Training for Bachelor's and Master's Students
  - Guest Lectures

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Thank You!

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Centre for Microbiology and Environmental Systems Science

Data Stewards on the Univie Website