

[e-Infrastructures Austria](#)

Vienna University Library and Archive Services

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<http://e-infrastructures.at>

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e-Infrastructures Austria
Activity Report 2014-2016

Vienna, January 2017
Version 1.0

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1. INTRODUCTION

Foreword Maria Seissl

e-Infrastructures Austria: The New Profile of Academic Libraries

Through the project e-Infrastructures Austria, academic libraries could emphasize that they are an integral part of the teaching and research process and that they are firmly secured in the field of academic and scientific communication.

From the beginning, it proved helpful that university libraries have experience with partner projects and have always worked cooperatively.

In this way, it was possible to not only initiate and implement a large, nationwide project with 25+1 partner institutions, but also, to bring together the most important stakeholders from different aspects of the research process and to achieve profitable results.

My personal expectation was, together with all partners, to build a framework for involvement in further projects at a national and international level. Today, academic libraries are faced with complex topics such as repositories and research data management. They are involved in the development of policies, provide know-how and services in the areas of data management plans and handling of digital data via computer centres and research support services, and serve as a reliable contact in the research community. Transfer of know-how was thoroughly examined within the scope of a seminar for research data and e-infrastructures, which has been now integrated into the education and continuing education programs of the library sciences.

These developments show not only the vitality and competences of the institutions involved in this project, but also the new profile of academic libraries, who, over the course of three years, have succeeded in defining their complex field and developing a sustainable plan for managing it.

The project e-Infrastructures Austria helped strengthen Austria as a research location, by strengthening its visibility in an international context and improving the reputation of its libraries in a national context, far exceeding my every expectation. For that, I would like to offer all those involved my utmost appreciation and my sincere thanks.

Maria Seissl

Library Director, Vienna University Library and Archive Services
Promotor of the project e-Infrastructures Austria



Foreword Paolo Budroni

Good Governance

From the start, the project e-Infrastructures Austria was meant to be a complex undertaking: due to the heterogeneous situations within each partner institution, it was necessary to install a form of “good governance” in the project to ensure the smooth and goal-oriented implementation of the project.

To better understand the heterogeneity of project members and their respective situations, it is worth mentioning that the project includes 20 university and five non-university research institutes, as well as one for-profit organisation and the Austrian National Library. The institutions can be distinguished by their differences in size and specialties. In addition to four large universities, the project also includes two medical universities and five art universities. Geographic locations are also varied, with about one-third of institutions concentrated in the eastern part of the country. One particular challenge proved to be the diverse starting situations of each partner with regard to goal-setting and the development of local e-infrastructures.

Why this preconception?

After almost one year of planning the project and now three years of implementing it, and with a growing sense of satisfaction – primarily due to the cooperation with my outstanding project management team, Barbara Sánchez Solís, Raman Ganguly, José Luis Preza and Katharina Flicker, the effective support from the heads of the Library of the University of Vienna, and also the legal advisor, Seyavash Amini – I want the readers to turn their attention to the key element of success for such complex projects, namely, good governance. In our project, this held the name Consensual Agreement and is, like so many of our project documents, published in both German and English. It allowed a smooth workflow between roughly 100 persons, the successful implementation of the project and created the foundation for the management of partnerships in e-Infrastructures Austria.

The implementation of this governance made it possible, not only to scale the project and establish new partnerships, but also encouraged sustainable actions among partners. Out of all the elements of this governance, I would like to point out the key element: dialogue.

Because modern public law infrastructures are thought to be self-evident elements of a democratic, modern state and because they are financed through the contributions of its citizens and therefore act similarly to modern corporate social responsibility policies with an economic, social and ecological consciousness, dialogue is pivotal to all stakeholders. We are proud to be networked in constant dialogue in our communication structures, in the midst of a rapidly changing multimedia society.

Wishing you further joyous dialogue to come,

Paolo Budroni

Project Director e-Infrastructures Austria
Library of the University of Vienna, Head of Department
Open Education Austria, H 2020 LEARN, e-IRG National Delegate



Foreword Bruno Bauer

A Solid Foundation for Research Data Management in Austria: e-Infrastructures Austria from the Perspective of the Partner Institutions



The project e-Infrastructures Austria (2014-2016) was made possible by Ministry of Science, Research and Economics federal grant for higher education. Over the last three years, 25 + 1 project partners were involved in the project and were dedicated to the topics of repositories and research data management, topics which were barely recognized in Austria at the start of this project and which received only minimal resources and support.

Through in-kind efforts for the establishment of document reserves in most of the partner institutions, an infrastructure was successfully established which allows Austrian universities almost nationwide to provide open access for academic works: gold open access for first-time publications and green open access for self-archiving (subgoal A).

Until 2013, the topic of research data management was terra incognita in Austrian universities. On this topic, cooperating partners worked together intensely, by way of an Austria-wide survey regarding the handling of research data in which 3026 researchers took part, but also via the development of data management plans, the establishment of research data policies and standards for metadata, and by creating a strategic concept for the future of research data management in Austria (subgoal B).

Although, at the start, Austrian universities and research institutions had little expertise on the topics of data repositories and research support services, this desideratum was turned around through the results of the 12 work-package-clusters, lectures, workshops, as well as a four-day „Training seminar for e-infrastructures and research data stewardship,” held in June of 2016 and the University of Vienna for 72 participants (subgoal C).

A particularly valuable aspect of this library-initiated project was the involvement of the central computing services, research support services and legal departments of each of the project partners throughout the project. With this addition, a solid foundation for future work on the increasingly important topic of research data management and for future projects (e-Infrastructures Austria Plus) was built.

As the chosen chairman of the general assembly of e-Infrastructures Austria, I am thrilled with the successful course of the project, in which all essential goals could be met. I would like to offer my sincere thanks to everyone who, through their dedication, helped make this project a success: the leaders and over 100 members of the 12 work-package-clusters, the members of the Think Tank and the group of experts „Strategies for handling research data in Austria” and in particular, Mag. Maria Seissl, director of the Library of University of Vienna, Dr. Paolo Budroni, Mag. Barbara Sanchez Solís, DI Raman Ganguly and José Luis Preza Diaz from project management.

Bruno Bauer

Library Director, Medical University of Vienna

Chair of General Assembly of the project e-Infrastructures Austria

2. FACT SHEET

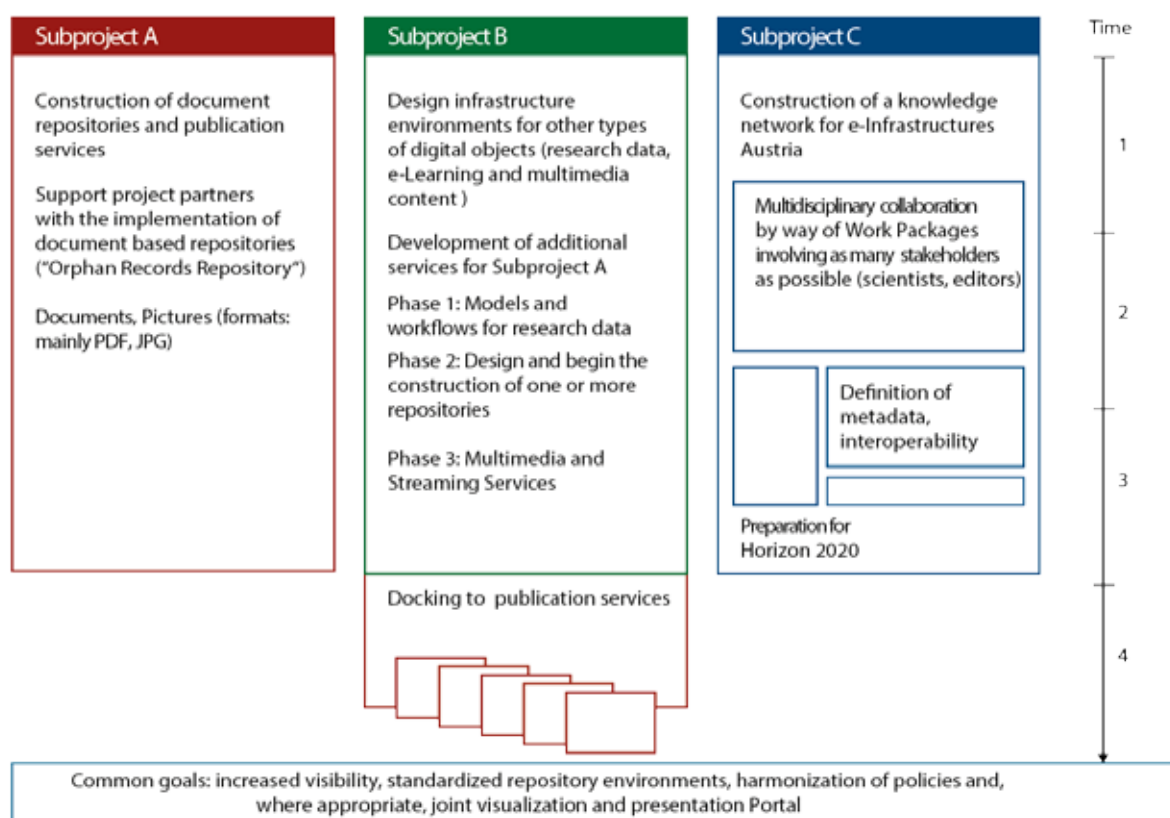
Key Facts

Start:	January 1, 2014
End:	December 31, 2016
Project coordination:	University of Vienna
Project partners:	26 partner institutions
Co-financing:	Federal Ministry of Science, Research and Economics BMWFW
Website German:	http://e-infrastructures.at/home/
Website English:	http://e-infrastructures.at/en/startpage/

Sustainable data storage and the provision of data for use by third parties are the central roles of scientific processes. E-Infrastructures Austria was a federally funded program for the coordinated expansion and continued development of data repositories across Austria, and was made possible by a grant from the Austrian Ministry of Science, Research and Economics (BMWFW), who co-financed one-third of the project, while project partners funded the remaining two-thirds.

The objective of this project was the coordinated establishment and development of repository infrastructures for digital resources in research and science throughout Austria and to enable the safe archival and lasting availability of electronic publications, multimedia objects and other digital data from the research and teaching fields. Concurrently, topics relating to research data management and digital archiving workflows were addressed.

e-Infrastructures Austria promoted the exchange of experiences on technical, organisational, legal, and content related issues between libraries, IT services and researchers at both the local and nati-



onal level who took part in the different workshops, events and seminars hosted by the project. Particular emphasis was placed on the handling of complex data such as research data and multimedia content.

ORGANISATION AND PARTNERS

The University of Vienna took on project coordination, whereas the Library of the University of Vienna acted as project management. In total, 26 partner institutions within Austria¹ took part in implementing and carrying out this project.

Project partners:

- Academy of Fine Arts Vienna
- Vienna Chamber of Labour
- Institute of Science and Technology (IST) Austria
- Medical University Graz
- Medical University of Vienna
- Montanuniversität Leoben
- Austrian Academy of Sciences
- Austrian Library Association and Services OBVSG
- Austrian National Library
- Graz University of Technology
- Vienna University of Technology
- University of Applied Arts Vienna
- University of Natural Resources and Life Sciences Vienna
- University of Arts and Design Linz
- University of Music and Performing Arts Graz
- University of Music and Performing Arts Vienna
- University of Graz
- University of Innsbruck
- University of Klagenfurt
- University of Linz
- University Mozarteum Salzburg
- University of Salzburg
- University of Vienna
- University of Veterinary Medicine Vienna
- Vienna University of Economics and Business

Associated Partner:

- Austrian Institute of Technology (AIT)

¹ See also <http://e-infrastructures.at/en/partners/>

RESULTS AND INSIGHTS/REVIEW

Through cooperation and the bundling of know-how and resources, a network of knowledge and competences was created, which aided in the implementation of repositories, as well as the expansion of technical systems, services and related ideas. In addition, the way was laid for future initiatives involving intense cooperation between libraries, IT services, research services and e-learning institutions (including education resources such as the federal grant project „Open Education Austria“) on the topic of research data management.

In diverse seminars, events and workshops, and with the support of libraries, IT services and researchers on a local, national and international level, even the most specialised work-package-clusters were able to share their experiences and knowledge regarding technical, organisational, legal and content-based topics with the project. In particular, the handling of complex data sets such as research data and multimedia content was addressed. The knowledge and resulting insights are published in the jointly-operated Wiki in open access mode, and are published on the project website.

Through these project activities, the expansion of document servers in each of the partner institutions was realised. As a result, the next logical step in expanding e-infrastructures, namely the establishment of appropriate services and infrastructures for handling research data, was made possible.

3. GOVERNANCE

At the end of the project, e-Infrastructures Austria included 25 partner institutions, one associated partner and six observers. The starting points of each of the partner institutions was very heterogeneous, not only in their frameworks, competences or geographic location, but also with regard to their goals for establishing e-infrastructures. For this reason, it was necessary to install a system of good governance right from the beginning, to ensure smooth and goal-oriented cooperation between all project partners, as well as the successful implementation of the project. As a result, a charta was written, namely, the „Consensual Agreement“, (Good Governance) which is provided in this document (see Appendix B).

Prerequisites for the establishment of good governance and for the organisational structure of the project, the Consensual Agreement, consisted of seven guiding principles.

- *Openness* should allow the participation and rearrangement of partners in the individual work groups. Participants also expressed their willingness to publish the results of the project as open-source content.
- *Encouraging a „culture of dialogue“* to promote personal networking and exchange of ideas.
- *Free access* refers to the collective results of the project to which all participants should have access.
- *Defined rights* should regulate the sustainability of results even after the end of the project.
- *Clear division of roles* refers to the assignment of roles and responsibilities and the organisation of partners into committees (see Chapter 4. Project Structure)
- Explicit goals, structured meetings, and assignments of responsibility characterise *structured work methods*. Equally relevant in this example is the division of labour into work-package-clusters.
- *A clear information structure* was made possible with the help of a Wiki¹ and a ticketing system.

From the start, these principles supported the establishment of a professional management and the development of the good governance. The latter helped in the following ways:

- establishing clear goals among all partners,
- making possible efficient systems for management, direction and control,
- generating functioning committees and boards, which can make project-related decisions both efficiently and quickly,
- realising a national, mutual communication platform with usage requirements,
- summarising all aspects of good governance in one document, accepted by all partners, signed, and published in both German and English,
- and the scaling of structures and committees, for example, to include additional partners or stakeholders, or to allow for the creation of further work groups, without disrupting „business as usual“ in decision-making structures.

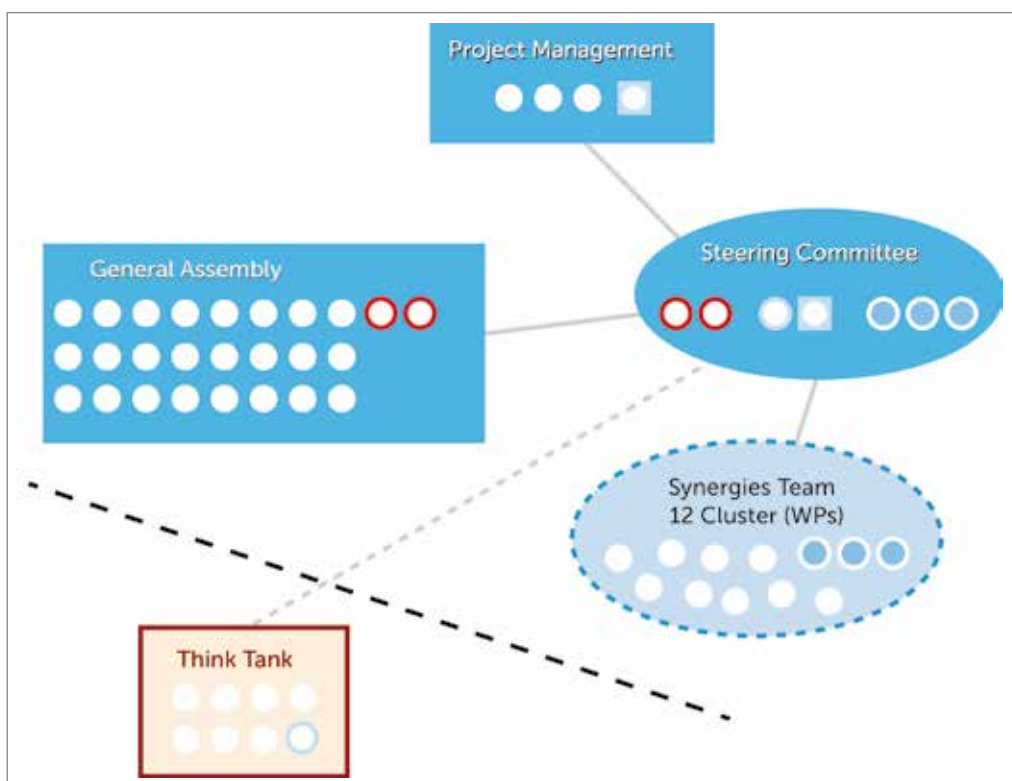
Details regarding the construction and structure of the project can be found in Chapter 4. Project Structure.

¹ A centralised web based Wiki, available to all partners, provided the organisational framework for the pooling of resources, the centralisation of current information about the project status, meetings, documentation as well as stimulating the exchange of experiences and knowledge. The Wiki was regulated by clearly defined Terms and Conditions of Use.

4. PROJECT STRUCTURE

The internal management structure of the partner network includes four institutional bodies and a Think Tank. The Think Tank is composed of researchers and provides external insight to the project. Roles and responsibilities within the project are regulated via the Consensual Agreement (see Appendix B).

4.1 COMMITTEES



Graphic depiction of governance. Composition of committees and delegation of members.

PROJECT MANAGEMENT



*Project Management Team.
Library of the University of Vienna, March 2015*

Project Management Team:

- Paolo Budroni, Project Director, University of Vienna, Library
- Barbara Sánchez Solís, Project Coordinator, University of Vienna, Library
- Raman Ganguly, Technical Project Manager, University of Vienna, IT Services
- José Luis Preza Díaz [until July 2016], Technical Project Coordinator, University of Vienna, IT Services
- Katharina Flicker, Project Assistant [from 2016], University of Vienna, Library

Project management took on the following responsibilities:

Key competencies of Project Management:

Costs and resources planning, setup and management of the coordination office, coordination in building the structure and services for the project in technical and non-technical areas, coordination of activities and methodologies for the implementation of the project, definition of requirements, definition of project phases, preparation of plans and schedules, establishing future phases of the project, initiation of processes, monitoring of processes in e-Infrastructures Austria, monitoring of appointments, official termination of processes, acceptance of deliverables and results, definition of the evaluation process, management of the evaluation process, cooperation in the creation of definitions for the individual work-package-clusters, hands-on participation in different work-package-clusters, assistance in legal issues, defining rules for partner management, assistance to project partners with organisational issues, reporting (deliverables and other official documents), coordination and design of the ticketing system, Wiki, project management services and documentation centre of the project, web presentation design, external communication, liaising with external partners, coordination of internal communications (within the partner network), participation in meetings with clients, and providing financial information to clients.

Key tasks of the Coordination Office:

Providing support to Project Management concerning coordination of the project, coordination of back-office functions, establishing and maintaining a contact network with opinion leaders within the 25 partner institutions participating in the project, supporting and advising specialists about the individual work-package-clusters, monitoring and analysis of developments in each work-package-cluster of the project, actively participating in meetings and events, organisation of partner events, supporting marketing activities in cooperation with the project management and partners.

GENERAL ASSEMBLY

The General Assembly served as a common forum for all partner institutions, and acts as a representative body and as the final entity responsible for decision-making. Decisions were made via voting.

The General Assembly elected its leadership from within the partner network:

- Chairman [Status 2016]: Bruno Bauer, Director of the Library, Medical University of Vienna
- Vice-Chair [Status 2016]: Eva Ramminger, Director of the Library, University of Innsbruck

It should be noted that cooperation with all IT service personnel took root from the beginning of the project. Due to substantial technical fo-



*Preparation for the 4th General Assembly.
Library of the University of Salzburg, September 2014*

cus, members of local IT services were invited to all orientation meetings, as well as all regional meetings, which took place between July 2014 and February 2015. For a codified involvement in the computing centres, in March 2015, three representatives were chosen to join the general assembly and steering committees: Florin Guma (Head of IT at the University of Salzburg) represented Western Austria, Christian Marzluf (Head of IT at the University of Graz) represented southern Austria and Maximilian Sbardellati (Head of IT at the University of Music and Performing Arts/MDW in Vienna) represented Eastern Austria.

On 14 October 2015, the University of Vienna hosted a joint, Austria-wide meeting of all university computing centres and university libraries. The agenda centred around the following topics:

- cooperation between libraries and IT services, and possibilities for optimization
- a joint Letter of Intent with regard to the establishment of e-infrastructures
- a joint training seminar for librarians and IT service providers on the topic of e-infrastructures
- the establishment of a group of experts for „Strategies for the handling of research data in Austria“



6th General Assembly, Bruno Bauer and Eva Ramminger. Innsbruck, October 2015

Cooperation between IT and Libraries: Letter of Intent (LOI)

In March 2016, the project management and legal advisor Seyavash Amini drafted a letter of intent (LOI), which stated that all organisational units and services of all project partners would like to work together in cooperation.

The goal and purpose of the LOI was not to legally bind or require cooperation. More so, it documented the interest, will and willingness of the individual institutions to work together as equals for the coordinated construction of a repository landscape and research support services (see Appendix C).

The LOI was signed by several project partners during the project phase of e-Infrastructures Austria and built a solid foundation for continuing projects on the topic of e-infrastructures. The efforts taken to implement an LOI were successful, and led to a new constellation of organisational units in the project application for the follow-up project, e-Infrastructures Austria Plus.

STEERING COMMITTEE

The Steering Committee drove the direction of the project using as a basis the resolutions of the General Assembly. The Steering Committee provided input, reviews, and recommendations to the different work-package-clusters, which were in turn submitted to the Synergies Team.

The Steering Committee was composed of seven members, three of whom were members of the Synergies Team, plus the Project Director as a Cooperation Member without the right to vote, the Chairman and Substitute Chairman of the General Assembly, and the Coordinator of the Think Tank.

Members:

- Bruno Bauer (Chairman of the General Assembly)
- Gerhard Budin (Coordinator of Think Tank)
- Martin Gasteiner (Member of the Synergies Team)
- Adelheid Mayer, Coordinator (Member of the Synergies Team)
- Eva Rammingner (Substitute representative of the General Assembly)
- Andreas Rauber (Member of the Synergies Team)
- Maximilian Sbardellati (Representative of IT-Services)
- One member from Project Management: Maria Seissl or Paolo Budroni
- Minutes: Barbara Sánchez Solís

The Steering Committee was constituted on 4 December 2014.

SYNERGIES TEAM

The Synergies Team submitted drafts and recommendations for the work-package-clusters to the Steering Committee. It also ensured regular meetings and the exchange of information between the different work-package-clusters, providing synergies for the project and expertise within the partner community.

The Synergies Team was composed of the 12 cluster leaders.

Members:

- Patrick Danowski, IST Austria (cluster A)
- Christian Gumpenberger, University of Vienna (cluster B)
- Paolo Budroni, University of Vienna (cluster C)
- Raman Ganguly, University of Vienna (cluster D)
- Seyavash Amini, Legal Advisor, University of Vienna / University of Hannover (cluster E)
- Andreas Ferus, Academy of Fine Arts Vienna (cluster F)
- Martin Gasteiner, University of Vienna (cluster G)
- Andreas Rauber, Vienna University of Technology (cluster H)
- Susanne Blumesberger, University of Vienna (cluster I)
- Adelheid Mayer, University of Vienna (cluster J)
- Bernhard Haslhofer, Michela Vignoli, AIT Austrian Institute of Technology (cluster K)
- Andreas Jeitler, University of Klagenfurt (cluster L)

The Synergies Team designated two of its members as coordinators:

- Coordinator: Andreas Ferus
- Deputy Coordinator: Lisa Schilhan [on maternity leave since 2015]

4.2 THINK TANK

The Think Tank was a group of representatives of multi-disciplinary organisations (from industry, politics, and science) that provided insight and expertise to the different organisational units of the

project e-Infrastructures Austria. The Think Tank actively participated in the definition of long-term development strategies and provided motivation for their implementation. According to the governance the Think Tank only provided recommendations, however.

It promoted networking with similar Austrian and European institutions working in similar projects, and ensured that Austria was connected with the rest of the world in research matters, promoted access to decision-makers in Austria and in the European Union, and facilitated access to qualified and structured data and information.

Coordination:

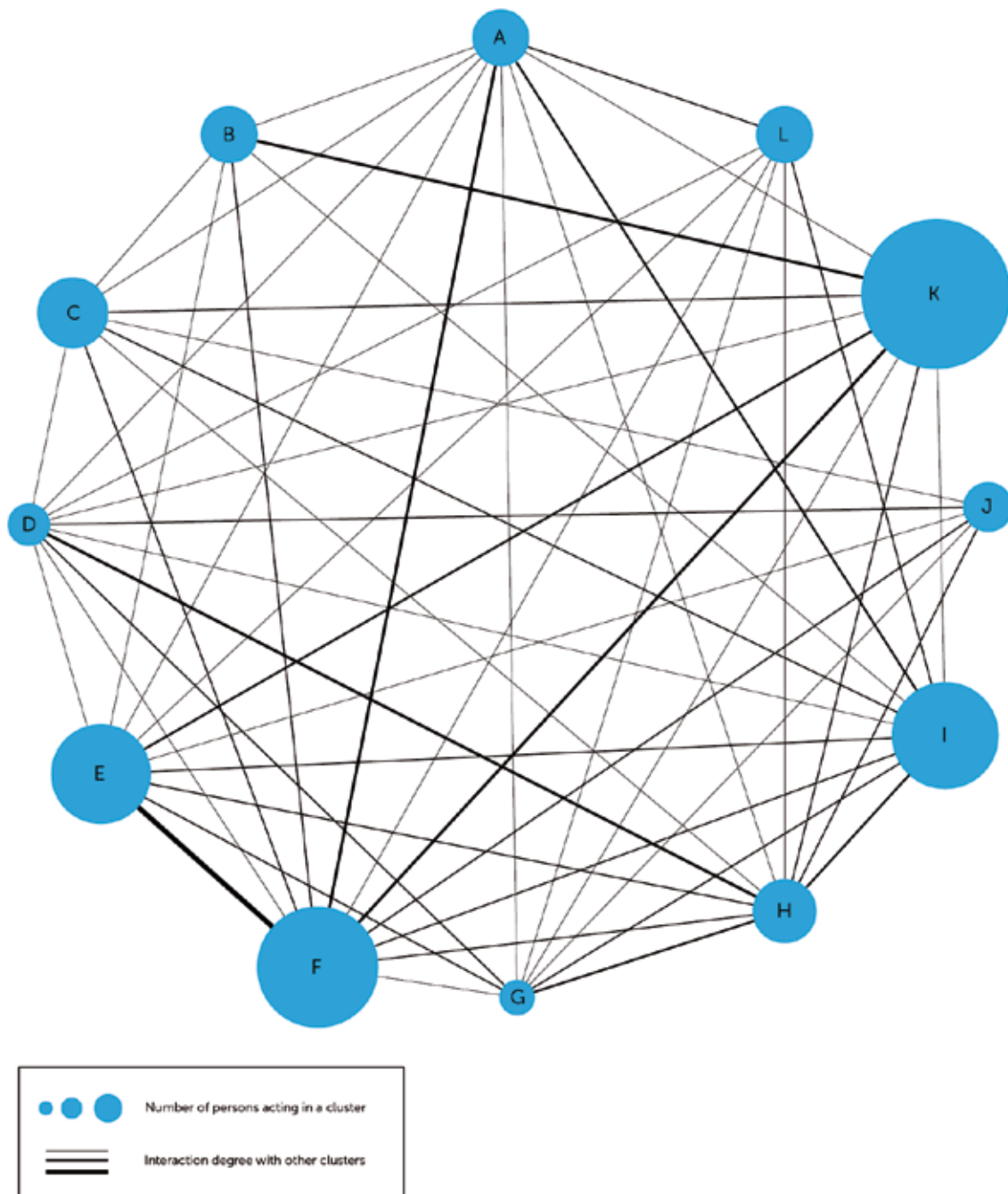
- Gerhard Budin, University of Vienna

Members:

- Brigitte Mazohl, University of Innsbruck; President of the Philosophical-Historical Class; Vice-President of the Austrian Academy of Sciences
- Carlos Morais-Pires [until July 2016], EU Commission Data Infrastructures within Unit e-Infrastructure
- Matthias Reiter-Pázmándy [on paternity leave since 2016], Profile development and Research infrastructures in Humanities, Social and Cultural Sciences, Federal Ministry of Science, Research and Economics
- Falk Reckling, Austrian Science Fund (FWF)
- A Min Tjoa, Vienna University of Technology, Head of the Institute of Software Technology
- Susanne Weigelin-Schwiedrzik [until 2015], Vice-rector for Research, University of Vienna
- Ruth Wodak, University of Lancaster, University of Vienna

5. WORK-PACKAGE-CLUSTERS

The project tasks were undertaken with the help of 12 different work-package-clusters. Below are the details from the work and objectives of each cluster. More detailed information about individual project phases, work groups, protocols, documentation, and the events calendar are accessible to all partners via the internal Wiki.



The graphic, „Molecule“ depicts the networking possibilities associated with the work of Column C within the project. Shown are the connections which members of the work-package-clusters have created, their intensity and the strength of the interaction (size of the blue circles and thickness of the lines).

The data was prepared by Raman Ganguly.

5.1 WORK-PACKAGE-CLUSTER: OVERVIEW

Cluster A	Monitoring of Document Repositories within the Partner Network <i>Team Leader: Patrick Danowski, Institute of Science and Technology Austria (IST Austria)</i>
Cluster B	Planning and Implementation of a "National Survey" for Research Data <i>Team Leader: Christian Gumpenberger, Library of the University of Vienna</i>
Cluster C	Designing a Knowledge Network: Development of a reference structure for the construction of Repositories <i>Team Leader: Paolo Budroni, Library of the University of Vienna</i>
Cluster D	Infrastructure <i>Team Leader: Raman Ganguly, Vienna University Computer Center</i>
Cluster E	Legal and Ethical Issues <i>Team Leader: Seyavash Amini, Counsellor-at-law, University of Vienna; Djawaneh Hamdi, Counsellor-at-law</i>
Cluster F	Open Access <i>Team Leader: Andreas Ferus, Library Services and Archives, Academy of Fine Arts Vienna</i>
Cluster G	Visual Data modeling <i>Team Leader: Martin Gasteiner, University of Vienna</i>
Cluster H	Life Cycle Management <i>Team Leader: Andreas Rauber, Institute for Software Engineering and Interactive Systems, Technical University Vienna</i>
Cluster I	Metadata <i>Team Leader: Susanne Blumesberger, Library of the University of Vienna</i>
Cluster J	Permanent Backup of the data <i>Team Leader: Adelheid Mayer, Library of the University of Vienna</i>
Cluster K	Data from scientific and artistic-scientific research processes <i>Teamleader: Bernhard Haslhofer, AIT Austrian Institute of Technology; Michela Vignoli AIT Austrian Institute of Technology</i>
Cluster L	Cross-project issues (technical and non-technical) <i>Team Leader: Andreas Jeitler (Library of the University of Klagenfurt)</i>

Further Deliverables apart from Work-Package-Cluster:

Data Citation	Report: Research data explored: an extended: an extended analysis of citation and almetrics. ¹
Model Policy	Model policy for Research data management (RDM) at Austrian Research Institutions ²

¹ see also <http://link.springer.com/article/10.1007/s11192-016-1887-4>

² see also phaidra.univie.ac.at/detail_object/o:459162

5.2 CLUSTER A – MONITORING OF DOCUMENT REPOSITORIES WITHIN THE PARTNER NETWORK

Team Leader: Patrick Danowski, Institute of Science and Technology Austria (IST Austria)

Members:

Name:	Institution:
Susanne Blumesberger	University of Vienna
Daniel Formanek	Medical University of Vienna
Veronika Gründhammer	University of Innsbruck
Ingrid Haas	Technical University Vienna
Gertraud Novotny	Vienna University of Economics and Business
Cornelia Paril	Technical University Vienna
José Luis Preza	University of Vienna, ICT
Elisabet Torggler	IHS Institute for Advanced Studies

In cluster A, the status of document reserves in each of the partner institutions was collected. For this purpose, a questionnaire was developed with questions on the following topics: software systems, status of implementation (in planning, in testing, in operation), those responsible for uploads and digitalisation, administrative and technical contact person, interfaces, backup, metadata scheme, archived document types, and so forth. The questionnaire was divided into the segments General, Repository for Publications and Retrodigitalisation. The information generated should support partner institutions in exchanging experiences and expertise in constructing local systems.

The results were collected in a comprehensive report from June/July 2016 by an external employee, Christoph Bedenig, coordinated by the project management of e-Infrastructures Austria. This report offers an overview of the status of document reserves in the 26 local partners institutions in the last year of the project. It not only depicts the services available or planned at the time of the questionnaire in each institution, but also their software solutions. Furthermore, it provides detailed descriptions of each partner institution, including personnel and contact persons.

In addition, cluster A prepared and published a „Modular Job Description Repository Manager“, and the modular „Document Requirements for Repositories.“ External institutions were also welcomed to integrate themselves into the cluster work.

Deliverables

- Anforderungen an Repositories für Dokumente³
- Modulare Stellenbeschreibung „Repository Manager“ (w/m)⁴
- Dokumentenserver in den e-Infrastructures Austria Partnereinrichtungen. Erhebung 2016⁵

³ <http://eprints.rclis.org/25437/>

⁴ <http://eprints.rclis.org/25436/>

⁵ http://phaidra.univie.ac.at/detail_object/o:459231

5.3 CLUSTER B – PLANNING AND IMPLEMENTATION OF A „NATIONAL SURVEY“ FOR RESEARCH DATA

Team Leader: Christian Gumpenberger, University of Vienna

Members:

Name:	Institution:
Bruno Bauer	Medical University of Vienna
Andreas Ferus	Academy of Fine Arts Vienna
Juan Gorraiz	University of Vienna
Veronika Gründhammer	University of Innsbruck
J. Michael Mühlegger	University of Salzburg
José Luis Preza	University of Vienna, ICT
Barbara Sánchez Solís	University of Vienna
Nora Schmidt	University of Vienna

Cluster B led a quantitative, Austria-wide research data survey. In this way, the practical handling of digital data, existing initiatives and the desiderata of researchers in the most diverse disciplines, as well as requirements for future research data services could be investigated.

This report provides an overview of the Austria-wide survey for research data, it was directed at the scientific and artistic-scientific personnel of all 21 public universities and three extramural research institutions in Austria.

The participants were asked about the following topics:

- Data types and formats
- Data archiving, backup and loss
- Ethical and legal aspects
- Accessibility and subsequent use
- Infrastructure and services

This first inquiry conducted at a national level in this context facilitated the collection of methods for the practical handling of research data in Austria, and is therefore the basis: (1) for an on-going effort to optimize the infrastructure, (2) for an adaptation of the services provided, as well as (3) for a reorientation of the identification method for resources in this strategic area, which correspond to the expressed needs of people in the research process.

The survey was completed by 3026 researchers, which represents an average response rate of 9%. 64% of the surveys could be traced to the five largest universities in Austria (University of Vienna, Technical University of Vienna, University of Innsbruck, Medical University of Vienna, University of Graz), and 35% to the other 19 participating institutions.

The complete results of the survey were collected in a comprehensive report, published both in print and online in German and English⁶. In addition, the report's Executive Summary is included in the appendix (See Appendix D).

Based on the results of the survey, six actions were isolated and recommended for immediate implementation:

- Establishment of a nationwide technical information infrastructure

⁶ <https://doi.org/10.5281/zenodo.32043>

- Discontinuation of institution-centred policies
- Implementation of research support services
- Hiring of field experts
- Implementation of appropriate incentive systems
- Support of international and interdisciplinary cooperation

The results of the survey and the recommendation were presented as part of the press conference on 10 December 2015 held at the University of Vienna by Maria Seissl, Christian Gumpenberger and Bruno Bauer. The press conference and the report were present in many media sources.

At the beginning of 2016, as part of the project e-Infrastructures Austria and building on the report and its recommendations, a group of experts, „Strategies for the handling of research data in Austria,“ was assembled and given the task of creating a strategic concept for how research support efforts could be effectively conceived and implemented. The result of this expert group was the formulation of a model policy (see Appendix H).



Press Conference „Researchers and their Data. Results of an Austrian Survey“. University of Vienna, December 2015

Deliverables

Full report, Executive Summary, questionnaire, poster (German)

- Gesamtbericht: Forschende und ihre Daten. Ergebnisse einer österreichweiten Befragung (PDF Full Report)⁷
- Gesamtbericht: Forschende und Ihre Daten. Ergebnisse einer österreichweiten Befragung (eBook)⁸
- Executive Summary: Forschende und ihre Daten. Ergebnisse einer österreichweiten Befragung⁹
- Fragebogen zur österreichweiten Umfrage zu Forschungsdaten¹⁰
- Poster Österreichs Forschende und ihre Daten¹¹

Full report, Executive Summary, questionnaire, poster (English)

- Full Report: Researchers and Their Data. Results of an Austrian Survey - Report 2015 (PDF full report)¹²
- Full Report: Researchers and Their Data. Results of an Austrian Survey - Report 2015 (eBook)¹³
- Executive Summary: Researchers and their Data. Results of an Austria-wide survey¹⁴
- Questionnaire National Research Data Survey¹⁵
- Poster Austria's Researchers and their Data¹⁶

⁷ https://phaidra.univie.ac.at/detail_object/o:407513

⁸ https://phaidra.univie.ac.at/detail_object/o:407736

⁹ https://phaidra.univie.ac.at/detail_object/o:407999

¹⁰ https://phaidra.univie.ac.at/detail_object/o:407734

¹¹ https://phaidra.univie.ac.at/detail_object/o:407560

¹² https://phaidra.univie.ac.at/detail_object/o:409318

¹³ https://phaidra.univie.ac.at/detail_object/o:409473

¹⁴ https://phaidra.univie.ac.at/detail_object/o:408001

¹⁵ https://phaidra.univie.ac.at/detail_object/o:407945

¹⁶ https://phaidra.univie.ac.at/detail_object/o:409452

5.4 CLUSTER C – DESIGNING A KNOWLEDGE NETWORK: DEVELOPMENT OF A REFERENCE ARCHITECTURE FOR THE CONSTRUCTION OF REPOSITORIES

Team Leader: Paolo Budroni, University of Vienna

Members:

Name:	Institution:
Raman Ganguly	University of Vienna, ICT
Veronika Gründhammer	University of Innsbruck
Christian Kaier	University of Graz
Hannes Kulovits	Austrian State Archives
Karin Lackner	University of Graz
Edith Leitner	University Mozarteum Salzburg
Joachim Losehand	Creative Commons Austria
Linda Ohrtmann	University of Salzburg
Barbara Sánchez Solís	University of Vienna
Stefan Szepe	University of Music and Performing Arts Vienna

As early as the planning phase of the coordinated establishment of e-infrastructures, including repositories, questions will arise which should be addressed, since careful planning can optimise the use of financial and time resources over the long term.

The work methods in the cluster should serve as reference models themselves; the establishment of a network of knowledge should make it possible for individuals and institutions to provide specialised expertise and take on certain topics. A direct operative intervention by the project management in realising document servers at each institution was not the goal of this work-package-cluster.

Close cooperation with cluster D (Infrastructure) was key. This cooperation produced reference models, workflows and depictions, which served as defining models for partner communications and for presentations at events and congresses.

The following topics were addressed in the cluster:

- Knowledge about the generation of policies and recommendations for the development of policies (for example, „Work flow models from taboos to policies“). At the same time, the H2020 project, LEARN was underway at the Library of the University of Vienna. Since the leaders of the LEARN „Work Package 3 – Policy Development and Alignment“ and the work on the topic of policies in the project e-Infrastructures Austria took place within the same organisation, namely the University of Vienna, the insights of both work packages were able to flow back and forth constantly. This also applied to the LEARN Workshop, which was held at the University of Vienna on 6 April 2016 and to which all project partners of e-Infrastructures Austria were invited. Cluster C offered support in the coordination of interdisciplinary expert groups with the task of constructing a model policy for research data management (RDM) at Austrian research institutions.
- Data management plans (DMP): Documents on the topic of DMP (instructions, templates and educational materials) and the conception of a pilot DMP online tool tested in selected Austrian research institutions. These institutions included the University of Vienna, the University of Graz, the University of Innsbruck, the University of Salzburg, the Mozarteum Salzburg, the Austrian National Archives, Creative Commons Austria, as well as the Phaidra Department of the Library of the University of Vienna. Workshops were also held on this topic (See „10. Workshops, Informational Events and Presentations – Overview“)
- Strategic and operational marketing relating to the establishment and operation of a repository: a workshop was held for the members of the cluster

- Dealing with terminologies and standards for terms used in the project e-Infrastructures: glossary work is included in the project Wiki and is available to all project partners
- Training plans and the establishment of multiplicators (conceptual visualisation). This activity was explicitly named in organising and implementing the four-day Austria-wide „Training Seminar for e-Infrastructures and Research Data Stewardship“, 6.-9.6.2016/University of Vienna, seminar website: <http://e-seminar.univie.ac.at/en>, event report: <http://phaidra.univie.ac.at/o:441753>.

Deliverables

- Datenmanagementpläne. Schulungsunterlagen erstellt im Rahmen von e-Infrastructures Austria (PPT)¹⁷
- Datenmanagementpläne. Schulungsunterlagen erstellt im Rahmen von e-Infrastructures Austria (PDF)¹⁸
- Templates für Datenmanagementpläne an österreichischen Forschungseinrichtungen:
Template Deutsch¹⁹, Template Deutsch²⁰ (Word Doc)
Template Deutsch²¹, Template Englisch²² (PDF)
- Data Management Plan - Eine Anleitung zur Erstellung von Data Management Plänen. Projekt e-Infrastructures Austria: Eine Anleitung zur dauerhaften Sicherung von digitalen Beständen²³
- DMP Online User Guide for Creating Data Management Plans using DMPOnline²⁴
- DMP-Schulungen am 16.3.2016, 9.5.2016, 2.6.2016 und 10.11.2016/Universität Wien; 30.3.2016/Donau-Universität Krems; 20.9.2016/Universität für Bodenkultur; Vortragende: Susanne Blumenberger und Barbara Sánchez Solís

Dialogue formats were essential to certain elements of the Work-Package Cluster's work and led to the development of concepts on which presentations were based. Among these are:

- Repositorien: Wichtige Bausteine beim Aufbau von e-Infrastrukturen
- Workflowmodelle Poster: e-Infrastructures Austria. Modell für die Aufbewahrung digitaler Daten (siehe auch Deliverable Cluster D):

¹⁷ <https://phaidra.univie.ac.at/view/o:459770>

¹⁸ <https://phaidra.univie.ac.at/view/o:459769>

¹⁹ <https://phaidra.univie.ac.at/view/o:459769>

²⁰ <https://phaidra.univie.ac.at/view/o:459216>

²¹ <https://phaidra.univie.ac.at/view/o:459774>

²² <https://phaidra.univie.ac.at/view/o:459775>

²³ <https://phaidra.univie.ac.at/view/o:367863>

²⁴ <https://phaidra.univie.ac.at/view/o:407951>

5.5 CLUSTER D – INFRASTRUCTURE

Team Leader: Raman Ganguly, University of Vienna, ICT

Members:

Name:	Institution:
Michael Birkner	Vienna Chamber of Labour
Gerhard Gonter	University of Vienna, ICT
Christoph Ladurner	Graz University of Technology
David Mitterhuber	Academy of Fine Arts Vienna, ICT
José Luis Preza	University of Vienna, ICT

Cluster D was primarily concerned with technical questions regarding the construction of repositories, including questions of the infrastructure in which repositories had to be built for the long-term archiving of data. The entire workflow of data was hereby examined in order to determine how data arrive in repositories and how the data are made available to various groups by the archive: What technical operations are required and how will data physically be held? Is an individual infrastructure needed for all areas or would collaborations be possible or logical? The topics addressed were broken down into the following categories:

- Uploading data of varying sizes and numbers in a single or bulk upload
- Storage and backup
- Distributed data saving
- Disaster and recovery (What can be done in the worst-case scenario?)
- Interfaces with other systems
- Representation for varying data types (streaming for audio/video)
- Technical operations concepts
- Use of common infrastructure

For the benefit of the entire project, a network of competences should be established which includes IT providers and the existing IT infrastructures of partner institutions. Together with other academic projects, e-Infrastructures Austria took part in an orientation regarding opportunities for cooperation in the areas of research data archiving, particularly with projects in the natural sciences, which produce large volumes of data. Exchange on an international level took place with other science networks in Europe and by identifying relevant initiatives in Europe. In addition, the ACOnet was informed at regular intervals.

Deliverables

- Technischer Überblick über Repositories Dokumentenserver der e-Infrastructures Austria Partnereinrichtungen²⁵
- Bewertung von Archivsystemen²⁶
- Technische Funktionen beim Research Data Management²⁷
- Poster. e-Infrastructures Austria Model for the preservation of digital data²⁸
- Poster. e-Infrastructures Austria Modell für die Aufbewahrung digitaler Daten²⁹
- Kostenmodell für die Archivierung von Forschungsdaten³⁰

²⁵ <https://phaidra.univie.ac.at/view/o:459177>

²⁶ <https://phaidra.univie.ac.at/view/o:459176>

²⁷ <https://phaidra.univie.ac.at/view/o:459175>

²⁸ <https://phaidra.univie.ac.at/view/o:459173>

²⁹ <https://phaidra.univie.ac.at/view/o:459172>

³⁰ <https://phaidra.univie.ac.at/view/o:459170>

5.6 CLUSTER E – LEGAL AND ETHICAL ISSUES

Team Leader: Seyavash Amini, Counsellor-at-law, University of Vienna, Djawaneh Hamdi, Counsellor-at-law

Members:

Name:	Institution:
Florian Bettel	University of Applied Arts Vienna
Guido Blechl	University of Vienna
Gerhard Falk	OA-representative of AAUK
Andreas Ferus	Academy of Fine Arts Vienna
Silvia Gstrein	University of Innsbruck
Claudia Hausberger	University of Veterinary Medicine Vienna
Christopher Kittel	OKFN
Michael Kranewitter	University of Linz
Joachim Losehand	Creative Commons Austria
José Luis Preza	University of Vienna, ICT
Sandra Vidoni	University of Klagenfurt
Michela Vignoli	OKFN/AIT

Cluster E was responsible for heightening the awareness of legal and ethical issues in the research process and for ensuring legal certainty and the professional handling of the associated legal issues (copyright, right of use, access, internet publishing, open access, re-use of digital content in the university sector for other purposes such as teaching, etc.). In addition, cluster E clarified the legal relationships of all parties involved in the project as well as potential future partners.

Examples: clarification of the legal protection for research data and its legal ownership, licensing issues about recovery and the use of proprietary data, definition of Terms of Use, legal defense regarding violations to the respective repositories, the handling of personal data and required data security.



*Seyavash Amini, Workshop.
Linz, November 2014*

Deliverables

- Textvorlage: Erklärung zur Einreichung einer Studienarbeit³¹
- FAQs zu Creative-Commons-Lizenzen unter besonderer Berücksichtigung der Wissenschaft³²
- Auswirkungen des „neuen Urheberrechts“ auf den Betrieb und die Nutzung elektronischer Repositorien³³
- Vorlage für Nutzungsbedingungen für Online Repositorien³⁴

³¹ https://phaidra.univie.ac.at/detail_Object/o:459181

³² https://phaidra.univie.ac.at/detail_Object/o:459183

³³ https://phaidra.univie.ac.at/detail_Object/o:459182

³⁴ https://phaidra.univie.ac.at/detail_Object/o:459178

5.7 CLUSTER F – OPEN ACCESS

Team Leader: Andreas Ferus [taken over from Lisa Schilhan 2015], Academy of Fine Arts Vienna

Members:

Name:	Institution:
Guido Blechl	University of Vienna
Daniel Formanek	Medical University of Vienna
Michaela Glanz	Academy of Fine Arts Vienna
Veronika Gründhammer	University of Innsbruck
Silvia Gstrein	University of Innsbruck
Martin Gundacker	University of Veterinary Medicine Vienna
Christopher Kittel	OKFN
Michael Kranewitter	University of Linz
Joachim Losehand	Creative Commons Austria
Gerda McNeill	University of Vienna
Gertraud Novotny	Vienna University of Economics and Business
José Luis Preza	University of Vienna, ICT
Christoph Steiger	University of Music and Performing Arts Vienna
Sandra Vidoni	University of Klagenfurt
Michela Vignoli	OKFN
Michael Zojer	University of Klagenfurt

The work of this cluster entailed researching and processing the requirements and issues related to open access in scope of the construction of electronic infrastructures. Particular attention was paid to avoid competition with national (OANA) and international (OpenAIRE, COAR etc.) initiatives. The objective was rather to supplement the efforts, achieve synergies, and establish cooperation of the intended knowledge network partners to successfully work and grow together.

Deliverables

- Modulare Stellenbeschreibung „Open-Access-Beauftragte“³⁵
- FAQs zu Open Access³⁶
- Papier Contentakquise und NutzerInnenunterstützung³⁷

³⁵ https://phaidra.univie.ac.at/detail_Object/o:459203

³⁶ https://phaidra.univie.ac.at/detail_Object/o:459202

³⁷ https://phaidra.univie.ac.at/detail_Object/o:459200

5.8 CLUSTER G – VISUAL DATA MODELING

Team Leader: Martin Gasteiner, University of Vienna

Members:

Name:	Institution:
Florian Bettel	University of Applied Arts Vienna
Michael Birkner	Vienna Chamber of Labour
José Luis Preza	University of Vienna, ICT
Ralf Pausz	University of Vienna

Cluster G dealt with the questions of future visualization of data from research processes and the construction of reference models for data handling in chosen fields (for example, Digital Humanities) or disciplines (Art or Natural Sciences, for example).

The term „research environments“, was often used in this context. These „research environments“, should be central and established elements of research, since research is born, established and constantly modified by its particular environment. This assumption carried particularly weight in the context of the hard sciences and social sciences, and a „performance of instruments“, was often mentioned. The terms instruments or tools should automatically be used when mentioning meta-source digital products, not to mention analytically in research platforms and asset management systems, and furthermore, in communication regarding and/or modifications of publications and differentiated visualisations.

In cluster G, such digital infrastructures were tested for their potential in the visualisation of diverse academic practices. The cluster, with its portfolio of questions, therefore worked closely with clusters D, F and H.

Concrete goals:

- Definitions of requirements: interface design with particular attention to disciplinary prerequisites (for example, Art and Media, or the Social Sciences)
- Creating a reference model for usability testing at each level of development and implementation; a reference model for the digital humanities, social sciences and others
- Big data and linked data as the foundation of enrichment processes
- Reference models for the visualisation and construction of „science rooms“
- Technological support in the classification of diverse data provenances
- Reference model for visualisation of semantic and human networks, in addition to data visualisations in the dimensions of time and space
- Analysis and establishment of publication systems and systems for scientific communication

For organisational reasons, and in agreement with project management, cluster G was unable to continue its work and was dissolved at the end of April 2016.

5.9 CLUSTER H – LIFE CYCLE MANAGEMENT

Team Leader: Andreas Rauber, Institute of Software Technology and Interactive Systems, Technical University Vienna

Members:

Name:	Institution:
Michael Birkner	Vienna Chamber of Labour
Raman Ganguly	University of Vienna, ICT
Gerhard Gonter	University of Vienna, ICT
Silvia Gstrein	University of Innsbruck
Ralf Pausz	University of Vienna
José Luis Preza	University of Vienna, ICT
Wolfram Seidler	University of Vienna
Elisabeth Trinkl	University of Graz

Cluster H primarily dealt with the technical aspects of Data Lifecycle Management. The aim was to identify which services and interfaces data repositories should provide in order to provide reliable and usable access to research data over the long-term in a trustworthy archive. These included a long line of processes in the areas of ingest (i.e. data receiving, metadata, quality control), administration of data and metadata (i.e. versioning after changes, corrections, addition of new data, signatures, provenance trails, migration), as well as accessibility (i.e. search, citability on arbitrary subsets of data, appearance, and single vs. mass accessibility to data).

For this task, the cluster should identify likenesses and differences in requirements and technical implementations (services, APIs) in the varying disciplines, as well as for the varying types of data (CSV, SQL-DBMS, streaming data, file-based repositories, etc.) and offer their recommendations for each.

Deliverable

- Life Cycle Management³⁸

³⁸ https://phaidra.univie.ac.at/detail_object/o:459204

5.10 CLUSTER I – METADATA

Team Leader: Susanne Blumesberger, University of Vienna

Members:

Name:	Institution:
Michael Bernkopf	University of Veterinary Medicine Vienna
Veronika Gründhammer	University of Innsbruck
Silvia Gstrein	University of Innsbruck
Gerhard Holzer	Austrian Academy of Sciences
Rastislav Hudak	University of Vienna, ICT
Andreas Krexhammer	Austrian Academy of Sciences
Christoph Ladurner	Graz University of Technology
Ralf Pausz	University of Vienna
José Luis Preza	University of Vienna, ICT
Nina Rannharter	University of Vienna
Imola Dora Riehle-Traub	University of Vienna
Yukiko Sakabe	Austrian Academy of Sciences
Stefan Szepe	University of Music and Performing Arts Vienna
Alexander Zartl	University of Vienna

Cluster I focused on building a network of knowledge and a knowledge platform for metadata. In addition, guidelines were established with regard to how diverse questions and Metadata could and should be handled. The main task of the cluster was to create an overview of standards (DC, MODS, METS, etc.) and their advantages and disadvantages with regard to certain data sets, an overview of linked (open) data and its feasibility, an analysis of best-practice methods, and finally, an analysis of needs which metadata are required by researchers. In further steps, the possibility of establishing a controlled vocabulary was discussed. Questions of how to handle non-standardised terminology, how to account for multiple lingualism were also addressed. In additions, the use of data management plans was discussed.

Deliverables

- Deliverables gesamt³⁹
- Linked Data in a nutshell⁴⁰
- Jobprofil von MetadatenmanagerInnen⁴¹
- Use of Metadata in Research Data Repositories: Use Case IST Austria DataRep⁴²
- Metadata Quality⁴³
- Classification Server⁴⁴
- Umgang mit Metadaten in Repositorien - Eine Österreichweite Umfrage⁴⁵
- Metadaten und Forschungsdaten⁴⁶
- Bedarfsanalyse für Forschungsmetadaten aus nicht-technischer Sicht

³⁹ <http://phaidra.univie.ac.at/o:441526>

⁴⁰ <http://phaidra.univie.ac.at/o:441673>

⁴¹ <http://phaidra.univie.ac.at/o:441513>

⁴² <http://phaidra.univie.ac.at/o:441219>

⁴³ <http://phaidra.univie.ac.at/o:441218>

⁴⁴ <http://phaidra.univie.ac.at/o:441217>

⁴⁵ <http://phaidra.univie.ac.at/o:441216>

⁴⁶ <http://phaidra.univie.ac.at/o:441215>

- Metadata and Accessibility (in Kooperation mit Cluster L)⁴⁷
- Automatische Übernahme von technischen Metadaten⁴⁸ Workshop

Workshop

On 22 June 2016, the metadata workshop „Metadata Management - the Way to Open Science“ was held in English in the main auditorium of the University of Vienna. Among the head speakers were Roberto Barbera (University of Catania, Italy), Tim Head and Anna Fensel (STI Innsbruck, University of Innsbruck), Barbara Petritsch (IST Austria) and Jeanne Holm (CIO, City of LA, California).

The complete program, all presentations and pictures from the event are available for download under <http://phaidra.univie.ac.at/o:441735>.

⁴⁷ <http://phaidra.univie.ac.at/o:459817>

⁴⁸ <http://phaidra.univie.ac.at/o:462586>

5.11 CLUSTER J - PERMANENT BACKUP OF DATA

Team Leader: Adelheid Mayer, University of Vienna

Members:

Name:	Institution:
Michael Birkner	Vienna Chamber of Labour
Gerhard Gonter	University of Vienna, ICT
Bettina Kann	Austrian National Library
Michael Kranewitter	University of Linz
Karin Lackner	University of Graz
Andreas Parschalk	University of Innsbruck

The primary objectives of cluster J were the development of long term structured strategies and the development of a practical guide for libraries on how to handle the long-term archiving (LTA).

Other activities included topics such as permanent implementation of LTA in the organisational structures of libraries and their environment (implementation in core activities, ensuring the maintenance, etc.), the establishment of LTA as a natural endpoint in workflows, definitions and standards, selection criteria for software, testing concepts from their technical perspectives, preservation planning, and Persistent Identifiers.

The focus of cluster J was the practical implementation and applicability of LTA in large, medium and small institutions.

Deliverable

- Guideline zur Langzeitarchivierung⁴⁹

Workshop

On 21 April 2016, e-Infrastructures Austria held the workshop „Software Solutions for Long-Term Archivation and Repository Administration from a User’s Perspective” at the University of Vienna. Diverse software solutions and products were introduced which were already in use in long-term archivation. The focus of the workshop lay in reporting on real-word use. The question of how institutions can obtain suitable software and what should be considered in decision-making process was also an important topic.

Speakers included Bettina Kann (Austrian National Library), Matthias Groß (Bavarian State Library), Hannes Kulovits (Austrian National Archive), Andreas Parschalk (Library of the University of Innsbruck) and Christian Kaier (Library of the University of Graz).

The complete program and the presentations of all speakers from the event are available for download under <http://phaidra.univie.ac.at/o:438695>.



Andreas Jeitler and José Luis Preza, Metadata Workshop. Vienna, June 2016

⁴⁹ https://phaidra.univie.ac.at/detail_Object/o:407976

5.12 CLUSTER K – DATA FROM SCIENTIFIC AND ARTS/HUMANITIES RESEARCH PROCESSES

Team Leaders: Bernhard Haslhofer [taken over from Andreas Ferus 2015], AIT Austrian Institute of Technology, Michela Vignoli, AIT Austrian Institute of Technology

Members:

Name:	Institution:
Florian Bettel	University of Applied Arts Vienna
Andreas Ferus	Academy of Fine Arts Vienna
Daniel Formanek	Medical University of Vienna
Raman Ganguly	University of Vienna, ICT
Michaela Glanz	Academy of Fine Arts Vienna
Juan Gorraiz	University of Vienna
Christian Gumpenberger	University of Vienna
Brigitte Kromp	University of Vienna
Manfred Lechner	University of Arts and Design Linz
Wolfgang Mayer	University of Vienna
Barbara Petritsch	IST Austria
Jana Porsche	IST Austria
Robert Schiller	University of Music and Performing Arts Graz
Reinhard Sefelin	Vienna University of Economics and Business
Wolfram Seidler	University of Vienna
Michael Staudinger	University of Music and Performing Arts Vienna
Johannes Stigler	University of Graz
Herwig Stöger	Austrian Academy of Sciences
Stefan Szepe	University of Music and Performing Arts Vienna
Michela Vignoli	Austrian Institute of Technology (AIT)
Daniela Weismeyer-Sammer	Vienna University of Economics and Business

Based on the contributions and results of several other clusters as well as on the detailed examination of existing initiatives (such as DataCite), cluster K works in the drafting of the first concrete concepts for dealing with generated data in the context of scientific research and artistic creation processes (research data management) and their implementation. Particular attention will be placed to the drafting of possible synergies with established author identifiers (such as ORCID) and institutional identifiers (such as Ringgold). It is also planned to draft a roadmap for the potential implementation of DataCite at national level as well as examining any alternative or complementary models. A working group developed a draft for a Data Librarian curriculum.

Deliverables

- Data Literacy Curriculum. Data Literacy for Information Professionals Education⁵⁰
- Bericht Data Citation Pilot. Zwischenergebnisse des Data Citation Piloten für Klimadaten am CCCA Datenzentrum⁵¹

⁵⁰ http://phaidra.univie.ac.at/detail_object/o:459207

⁵¹ http://phaidra.univie.ac.at/detail_object/o:459206

Workshop

On 8 June 2015, e-Infrastructures Austria hosted the workshop „DOIs for Research Results“, at the Austrian Academy of Sciences. The primary themes were Digital Object Identifiers, electronic resources and long-term archivation. Speakers included Geoffrey Bilder (Director of Strategic Initiatives at CrossRef), Angelina Kraft (TIB Science and Technology Hannover, Datacite), Barbara Hirschmann (DOI Desk at the Swiss Federal Institute of Technology ETH in Zurich), Heinz Pampel (Helmholtz Centre Potsdam, German Research Centre for Geosciences GFZ), Herwig Stöger (Austrian Academy of Sciences Press), Vittorio Muth (Austrian Academy of Sciences Press) and Georg Lasinger (Austrian Academy of Sciences Press).

- Workshop „DOI for research results“ - Workshop Presentations:
- Workshop „DOI for research results „ - Video

5.13 CLUSTER L – CROSS-PROJECT ISSUES (TECHNICAL AND NON-TECHNICAL)

Team Leader: Andreas Jeitler, University of Klagenfurt

Members:

Name:	Institution:
Susanne Blumesberger	University of Vienna
Ursula Hermann	University of Vienna
Gerhard Neustätter	Technical University Vienna
José Luis Preza	University of Vienna, ICT
Jakob Putz	University of Graz
Kerstin Tischler	University of Vienna
Max Wassermann	University of Klagenfurt

Cluster L dealt with selected cross-project issues which arose during the planning, construction and operation of repositories. Central themes included usability, accessibility and multilingualism of the implemented systems and their saved data.

Since the Bundes-Behindertengleichstellungsgesetzes, a national law against discrimination of persons with disabilities, (BGStG) in 2006 and the E-Government law (EGovG) in 2008, achieving accessibility for a maximum of people has been an indispensable topic.

In general, cluster L is tasked with ensuring that the products in use and their saved data are accessible and usable for a maximum of potential users.

Selected topics:

- Requirements analysis (target audience, use cases, etc.)
- Analysis of existing guidelines, standards and legal frameworks
- Accessible construction of information and communication systems
- Ensuring accessibility of the project-generated information (web, Wiki, documents, lecture notes, models, etc.)
- Accessibility of research data and university theses
- Analysis of the accessibility of current and planned products
- Translation from technical into non-technical/simple language, including sign language
- Established guidelines, recommendations and instructions for meeting defined requirements
- Workshops on the topics such as the basics of e-accessibility, web accessibility, and digital accessibility in research libraries in order to broaden awareness among project partners
- Encouragement of networking in these areas (for example, UNIABILITY)



*„Library4All - Barrierefreie Bibliotheken“.
University of Vienna, October 2016*

Deliverables

- Empfehlungen für barrierefreie Repositorien⁵²
- Metadata and Accessibility (in Kooperation mit Cluster I)⁵³

Workshop

On 13 October 2016, cluster L held a Workshop entitled „Library4All – Accessible Libraries as the Basis for Successful Studies and Research with a Disability or Chronic Illness“, which dealt with issues of accessible libraries: the basis for studies or research should be as unimpeded and as user-friendly as possible. Libraries should strive to make available media as accessible as possible. This workshop was meant to educate, sensitize, and inspire participants to meet that goal.

⁵² Siehe auch <http://phaidra.univie.ac.at/o:459805>

⁵³ Siehe auch <http://phaidra.univie.ac.at/o:459817>

6. EXPERT GROUP – DEVELOPMENT OF A MODEL POLICY FOR RESEARCH DATA MANAGEMENT (RDM) AT AUSTRIAN RESEARCH INSTITUTIONS

BACKGROUND

The establishment of a model policy for research data management (RDM) for Austria is underway. On the one hand, this enterprise has been prompted by rising expectations in the research community, particularly in reaction to the Open Research Data Pilot from Horizon 2020, which has been running since 2014. On the other hand, the results of a comprehensive, quantitative survey regarding RDM in Austria was completed between January and March 2015 and published in November 2015, as part of the project e-Infrastructures Austria. Over 3000 researchers from 20 out of 21 public universities in Austria, as well as three non-university research institutions, took part in the survey – this response reflected a 9% response rate in Austria. When asked about desired measures for RDM, more than half of the survey participants expressed an explicit desire for guidelines and policies.

It is worth noting that, at the time of the survey, none of the participating Austrian institutions and none of the large national research grant foundations made use of an RDM policy. Only the Austrian Science Fund (FWF), the grant foundation, included a paragraph in its open access policy dedicated to research data, which stated that „whenever legally and ethically possible, all research data and similar materials which are collected and/or analysed using FWF funds have to be made openly accessible.“¹

In early 2016, in order to formulate the requisite and explicitly cited guidelines for competent RDM, the project management of e-Infrastructures Austria created a „task force dedicated to finding strategies for the management of research data in Austria.“ During the lifespan of this expert group, the FWF called for an „open research data pilot“.

The resulting Expert Group was comprised of 22 members from the stakeholder groups including e-Infrastructures Austria, government ministries, Universities Austria (UNIKO), Vice-Rectors of Research, national research-funding organizations, scientists, scientific libraries, IT-services and research services, and was organised by the Library and Archive Services of the University of Vienna. The Expert Group also tasked a nine-member working sub-group to develop a model for RDM policies in Austrian research institutions. The resulting model policy provides exemplary templates in both German and English, which can be adapted to suit the philosophy and needs of any research institution. This model for RDM policy is the result of six months of collaborative work, and was completed during a meeting of the Expert Group on 2 June 2016.

The Library and Archive Services of the University of Vienna worked concurrently with its partners on the implementation of the Horizon 2020 Project LEARN². It proved advantageous that the leadership of the „Work Package 3 – Policy Development and Alignment“ of the LEARN Project and the leadership of e-Infrastructures Austria were active at the same time, and that both tasks were managed within the same organisation, i.e. the Library of the University of Vienna. For this reason, findings con-

¹ See also: FWF (Austrian Science Fund): <https://www.fwf.ac.at/en/research-funding/open-access-policy/>

² This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 654139; website: <http://learn-rdm.eu/>

tinually flowed back and forth between the expert groups of the two projects. Furthermore, during this same period, the first three (of five) LEARN workshops were held in London, Vienna and Helsinki, and focused on RDM and policy development.

EVALUATION OF RDM-POLICIES IN THE SCOPE OF THE PROJECT LEARN

Between July 2015 and June 2016, the Library of the University of Vienna collected and analysed over 40 European RDM policies. In the course of this preparation phase it became obvious that in many countries (especially on continental Europe) there have hardly been published any guiding principles regarding RDM. After a further selection process, 20 policies were examined more closely based on (identified) format and content-related criteria. Using an analysis grid, 11 RDM policies from the United Kingdom, four from Germany, one from the Netherlands and four from Finland were evaluated and checked for possible significant changes during this period at regular intervals.

The most striking results from this analysis related to format and content: It was apparent that research institutions often draw on one another, and sometimes sources were even explicitly referenced. Authorship and the date of publication were not always explicitly stated, and standard formatting did not exist. More than half of the policies analysed made no mention of review periods or revision editions. It was universally clear which topics the policies addressed, and largely, to whom they applied. The concrete objectives of the policies were not directly declared in each case. Roles and responsibilities in research institutions were always mentioned, and in some cases were clearly assigned to specific stakeholders. Only very few institutions explicitly named students as stakeholders worthy of consideration. A position on research funders was taken by most institutions, although, with a few exceptions, costs were only indirectly mentioned.

The term „research data“ was defined by most institutions, but the terms „research“ and „researcher“ only rarely; definitions of other key terms (such as „data management plan“) were also rarely supplied. „Open data“ as an issue was a universal concern (although to a varying extent), „restricted data“ or „closed data“ were mentioned in connection with ethical and legal concerns, if at all. In turn ethical and legal aspects were almost always mentioned, but with widely differing interpretations; in many cases, additional guidelines were referenced. Ownership of data was clearly formulated in about one quarter of the selected policies; it is worth noting, however, that although authorship is mentioned, very few delineations between copyright and rights to use were made.

On the topic of „storage and access“ it was notable that data security and open access to research data were strongly emphasised, while long-term archiving was only sporadically mentioned. A specific location for the storage of data was, with a few exceptions, not named; although, some research institutions provide or recommend such services. Externally (with respect to a research project) generated and stored data should also be registered internally. The archival storage period for research data was addressed in about half of the examples analysed; the exact lengths of time, if declared, varied, but 10 years was the length of time most commonly cited. The explicit deletion of data was mentioned in only a very few examples, although this issue is best addressed by data management plans (DMP). A DMP was described in all examples (in some more thoroughly than others) or even considered as a mandatory requirement; in several policies there is evidence that a template was used, or a DMP-guidance tool (such as that of DCC).

The topic of „support and training“ was universally treated as a necessary component of RDM and was mentioned in all policies. In contrast, the relevance of topics such as „educational data“ and „cultural heritage“ have not yet entered the consciousness of the research community.

WORK OF THE EXPERT GROUP E-INFRASTRUCTURES AUSTRIA

The Expert Group task force made use of previous data on the subject of RDM, including the results of the report entitled „Researchers and their Data: Results of an Austrian Survey,“ the results of the first LEARN workshop, held in London in January 2016, as well as the results of an online conference with universities in South America.

The Expert Group also formed a nine-person work sub-group, which met regularly every two weeks, and was charged with drafting a policy paper. At first, work was begun in English, as many of the existing policy examples were written in English. Over time, however, drafts were broken down to meet Austrian needs, in both language and meaning. The model policy became more and more concrete with each meeting. The project management of e-Infrastructures Austria ensured a continual flow of information between the work sub-group and the Project LEARN, particularly as the breakout sessions during the second and third workshops became more and more focused on policy development in varying European institutions. E-Infrastructures Austria also set a high standard with the organisation of the four-day, „Training Seminar for e-Infrastructures and Research Data Stewardship,“³ which looked at operational measures in the field of RDM.

The following duties of the Expert Group are of particular importance:

- Regularly exchanging information regarding the development of a model RDM policy with LEARN project partners, particularly with representatives from South America, in order to compare and standardise terminology
- Utilising of the results of the breakout sessions of the LEARN Workshops
- Keeping the goals and mission outlined the LERU-Roadmap in consideration
- Upholding the „FAIR guiding principles for scientific data management and stewardship“⁴
- Gathering feedback from the Austrian research landscape, particularly with regard to rights and organisational guidelines and terminologies
- Involving institutional computer centres (ICT)
- Cooperating with legal experts
- Continually exchanging of information with representatives from Austria research funders and sponsors
- Comparing the results of the work sub-group with the conclusions drawn after the examination of RDM policies across Europe (See also: Evaluation Grid for RDM Policies in Europe. Survey results, August 2016)⁵.

³ See also: <http://e-seminar.univie.ac.at/en>

⁴ See also: <http://www.nature.com/articles/sdata201618>

⁵ See also <http://phaidra.univie.ac.at/o:459219>

CONCLUSION

After the creation of a model policy, and in particular, its customisation at the local level, many recommendations can be made to help establish efficient RDM at individual institutions. The establishment of RDM support services have proven indispensable. Therefore, the Expert Group also provided recommendations on an organisational and structural scale. In June of 2016, the Expert Group decided to publish the model policy⁶ and to enter it in the Universities Austria (UNIKO) „Forum Research“ for further comments. In 2017 the recommendations will be addressed and local adaptations could begin.

Further documents related to this case study are: 1) Project LEARN, about policies and KPIs; 2) Model policy for research data management (RDM) at Austrian research institutions; 3) LEARN Evaluation Grid for RDM Policies in Europe. Survey results, August 2016.

Download:

Model Policy: „Model Policy for research data management (RDM) at Austrian research institutions: <http://phaidra.univie.ac.at/o:459162>

Evaluation Grid for RDM Policies in Europe: <http://phaidra.univie.ac.at/o:459219>

Further documents regarding this use case and policies are available via the project LEARN⁷.

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⁶ <http://phaidra.univie.ac.at/o:459162>

⁷ See also <http://learn-rdm.eu/en/partners/univie/>

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⁸ The Know-Center is funded within the Austrian COMET program – Competence Centers for Excellent Technologies – under the auspices of the Austrian Federal Ministry of Transport, Innovation and Technology, the Austrian Federal Ministry of Ministry of Science, Research and Economy, and the State of Styria. COMET is managed by the Austrian Research Promotion Agency FFG.

7. TRAINING SEMINAR E-INFRASTRUCTURES AND RESEARCH DATA STEWARDSHIP

INTRODUCTION

From 6th until 9th of July 2016, e-Infrastructures Austria organised a four-day “Training Seminar for e-Infrastructures and Research Data Stewardship.”

This seminar was targeted at representatives from libraries, research services and IT services that build repositories and research support services at their institutes. The aim of the event was to provide knowledge sharing in research data management and workflows for research.

The training seminar was aimed primarily at people in the 26 e-Infrastructures Austria partner institutions, who are in long-term charge of the development of institutional e-infrastructures and research data management services, and therefore subsequently would act as a contact person as well. It should be perceived as a comprehensive event, intended to intensify an awareness-based analysis of technical, organizational and legal issues.



*Training Seminar e-Infrastructures and research data stewardship, Maria Seissl and Paolo Budroni.
University of Vienna, June 2016*

ORGANIZATION OF THE TRAINING SEMINAR

The target group for the event was to be at least two representatives from the 26 e-Infrastructures Austria project partners (representatives from libraries, research services and IT services), i.e. at least 54 participants. The individual modules – including the legal modules – were led by two or three speakers.



Training seminar e-infrastructures research data stewardship. University of Vienna, June 2016

The project management set up a bilingual (English and German) seminar website¹ by 12 May 2016 with a detailed program and biographies of the speakers using the registration tool Eventbrite.

Seventy-five people registered for the event, whereas 72 people, including lecturers, actually participated. The 52 listeners represent the following stakeholder groups: 28 people from libraries, 11 people from IT services, 12 people from research services and one

¹ See also <http://e-seminar.univie.ac.at/>



• To gallery

Monday, 6. June 2016

10:11:30		Get-together
12:30-12:45	P. Budroni	Welcome address and importance of e-infrastructures
12:45-15:00	L. M. Breust, C. Schubert, B. Wloka	Presentation of Two 2 Use Cases in the Fields of Digital Humanities and Climate Research
15:00-15:30	Break	
15:30-17:00	R. Ganguly, W. Kraus	Digital Workflow Models, Preservation and Deletability

Tuesday, 7. June 2016

09:00-10:30	A. Forst, F. Guma, R. Seifert	Role Models (including IT), Competencies, Areas of Responsibility
10:30-11:00		Break
11:00-12:30	M. Birkner, S. Birmesberger	Requirements Management/Use Cases
12:30-13:30		Lunch break
13:30-15:00	A. Rauber, C. Schubert	Life Cycle Management: The Digital Object, Content Models
15:00-15:30		Break
15:30-17:00	P. Budroni, B. Sánchez Solís	Establishing an Institutional Service Centre for Research Support

Wednesday, 8. June 2016

09:00-11:00	T. Miksa, B. Sánchez Solís, C. Schrauf	Data Management Plans (DMP)
11:00-11:30		Break
11:30-13:00	S. Amini	Legal & Ethical issues I
13:00-14:00		Lunch Break
14:00-15:00	S. Amini	Legal & Ethical issues II
15:00-15:30		Break
15:30-17:00	H. Eberle, G. Novotny	Operations, Service, Support

Thursday, 9. June 2016

09:00-10:30	P. Budroni, R. Ganguly	Finance Models, Cost Calculations and Resource Requirements
10:30-11:00		Break
11:00-12:30	S. Birmesberger, S. Szepes	Metadata in the Areas of Repositories and Research Data
12:30-13:30		Lunch Break
13:30-15:00	S. Amini	Terms of Use for Repositories
15:00-15:30		Break
15:30-17:00	P. Budroni (Moderator)	Closing discussion

This event was organized by e-infrastructures Austria

person from the scientific community. A total of 19 presenters came from eleven different research institutions and from the fields of libraries, IT services, research services, science, funding agency and legal advice. Overall, the participants stemmed from 24 Austrian research institutions.

For all participants of e-Infrastructures Austria, seminar portfolios were prepared with program notes, a participant list, a pad and a USB stick. The program booklet contained a schedule as well as abstracts from the individual modules and biographies of all speakers.

PROGRAM

The program of the training course was conceived in the summer of 2015 in a first draft jointly by the project management and the Steering Committee of e-Infrastructures Austria and then subsequently created. In December 2015 and February 2016, the program was adjusted in joint meetings with the synergies team of e-Infrastructures Austria² and then lecturers were sought. The basic idea was to provide a mix of presenters ranging from those in libraries, IT services, research

services and the scientific community – in order to highlight the subject of digital data management from different perspectives.

During the event, the following contributors led the presentation modules and the subsequent discussions: Paolo Budroni, Bruno Bauer and Raman Ganguly.

The program consisted of 13 modules and a moderated final discussion. The training seminar opened with the presentation of two use cases, which represented a broad picture of research data: namely, projects in the field of Digital Humanities (special research area: "German in Austria") and

² See also <http://e-infrastructures.at/struktur/synergies-team/>

from climate research (report from Climate Change Centre Austria – CCCA Data Center). All speakers were given abstracts in advance of these two use cases, with the charge to refer to these two examples if possible.

Thematically, the presentations offered a range of organizational, technical and legal questions:

- Use Cases from the Fields of Digital Humanities and Climate Research
- Digital Workflow Models, Preservation and Deletability
- Role Models (incl. IT, Competencies, Areas of Responsibility)
- Requirements Management/Use Cases
- Life Cycle Management: The Digital Object, Content Models
- Establishing an Institutional Service Centre for Research Support
- Data Management Plans (DMP)
- Legal & Ethical Issues I and Legal & Ethical Issues II
- Operation, Service, Support
- Finance Models, Cost Calculation and Resource Requirements
- Metadata in the Areas of Repositories and Research Data
- Terms of Use for Repositories

The program of the entire event and the abstracts of all modules are available at: <http://e-seminar.univie.ac.at/en/program/>

LECTURERS

The variety of presentations was also reflected in the different professional back-grounds of the lecturers. The total of 19 presenters came from the fields of libraries (7), IT services (7), research services (1), science (2) and legal advice (1) and from 11 different scientific institutions in Austria and Germany:

- Amini, Seyavash, Gottfried Wilhelm Leibniz University of Hanover
- Birkner, Michael, Chamber of Labour Vienna



Paolo Budroni, Training seminar for e-infrastructures and research data stewardship. University of Vienna, June 2016

- Blumesberger, Susanne, University of Vienna
- Breuer, Ludwig Maximilian, University of Vienna
- Budroni, Paolo, University of Vienna
- Eberle, Harald, Vorarlberg Provincial Library
- Ferus, Andreas, Academy of Fine Arts Vienna
- Ganguly, Raman, University of Vienna
- Guma, Florin, University of Salzburg
- Kraus, Wolfgang, University of Vienna

- Miksa, Tomasz, Vienna University of Technology
- Novotny, Gertraud, Vienna University of Economics
- Rauber, Andreas, Vienna University of Technology
- Sánchez Solís, Barbara, University of Vienna
- Schrauf, Cornelia, Vienna Science and Technology Fund
- Schubert, Chris, Climate Change Center Austria data centre
- Sefelin, Reinhard, Vienna University of Economics
- Szepe, Stefan, University of Music and Performing Arts Vienna
- Wloka, Bartholomäus, University of Vienna

For a majority of the talks, it was possible to present the module with a “technical” (IT) and an “organisational” (libraries/research services/researcher) representative. The profiles of all lecturers can be accessed at the following page: <http://e-seminar.univie.ac.at/en/lecturers/>

DOCUMENTATION OF DISCUSSIONS

To filter out which questions for the participants were important or what topics should still be pursued for further events of this kind, questions and discussions were documented in writing within the lecture modules. A general evaluation can be found below (Summary).

EVALUATION AND FEEDBACK

The training course was evaluated in order to review opinions of the participants so that training initiatives in the future would benefit from this input. Immediately after the event, an online lime-survey was sent to all participants with the request of providing feedback about the seminar as soon as possible. Some 45 of 72 participants completed the questionnaire.

SUMMARY

The evaluation notes in the free text fields yielded valuable and practical insights to aid in designing future training formats. Combining the perspective of two or three lecturers with different professional foci was considered a positive idea, although some lectures were perceived as overly technical. The participation of each researcher was considered a source of insight, providing perspectives that can be heard and evaluated, bringing an advantage into the development of format and designs.



*Training seminar e-infrastructures and research data stewardship.
University of Vienna, June 2016*



Training seminar e-infrastructures and research data stewardship. University of Vienna, June 2016

It was suggested that in future events, less theoretical treatises and more practical information should be offered. For example, a short pooled case study from a research data project in the Netherlands or a specific calculation example of digital archiving was perceived as very useful. More feedback suggested that other group exercises could be planned in and the use cases, which were presented at the beginning of the event, should be increasingly more frequently used for subsequent presentations.

Especially much discussion was needed in the legal modules „Legal & Ethical Issues“, and „Terms of use for Repositories“. It was suggested that in future the program might be possibly separated between a presentation segment and a question segment, whereas a separate unit could be set aside for project-specific questions. Specifically mentioned in the legal field was the need for even more detailed information on data protection, and the suggestion of covering project contracts and service contracts as well as different types of employment contracts at scientific establishments, and possibly even engaging representatives from human resources departments to come. Pronounced was also a desire for international experts in research management, for example, to invite such experts from the UK.

The participants were basically very satisfied with the organizational framework, and it was also suggested several times that the event be shortened to three days, since it is not always easy to take time off for such a longer period.

8. YEAR-END REPORTS

8.1 SUMMARY YEAR-END REPORT 2014

The kick-off meeting of the project was held on 30 January 2014 at the University of Vienna. As of March 2014, a three-person project management team was selected, to which one more person was added in June for technical guidance. At the kick-off, the project structure was presented, as were the work-package-clusters. The project management held regular orientation conversations with all project members across Austria, in order to determine the starting position of each institution, to explain the benefits and goals of the project and to ensure optimal integration of the resources available, both technical and personal.

At the same time, a communication infrastructure was constructed. A central, web-based project Wiki served as an information and work platform for all project partners. The Wiki contained detailed descriptions of the goals of each cluster, information regarding each project phase, the make-up of the work groups, protocols, documentation and appointments. Furthermore, a project website was developed in both German and English. After the kick-off, three general assemblies were held in the first project year. In the fourth general assembly, the governance created early on in the form of the consensual agreement was accepted by all partners. In addition, all committees were filled and their work delegated.

Several meetings of the synergies team and the steering committee were also held; all work-package-clusters organised work meetings and sometimes workshops. After the first months of the project, regional meetings of libraries and local IT services were held. The following institutions entered the project with the status of „observers:“ Austrian National Archive, Austrian Science Fund (FWF), Danube University of Krems, Institute for Advanced Studies IHS and the Open Knowledge Foundation Austria. Furthermore, the representative from Creative Commons Austria, Joachim Losehand, joined one of the work-package-clusters.

General assemblies 2014:

- 1st general assembly kick-off, 30.1.2014, Library of the University of Vienna
- 2nd general assembly, 26.3.2014, Library of the University of Vienna. Themes: Governance, the meaning of research data in the project, new line-up of work-package-clusters
- 3rd general assembly, 26.6.2014, Library of the University of Vienna. Themes: OpenAIRE, tasks of the work-package-clusters, consensual agreement (regulating the cooperation between, then, 25 project partners)
- 4th general assembly, 26.9.2014, Library of the University of Salzburg. Themes: Filling the committees of the project, voting on the handling of the nationally used project Wiki (user licences)

Workshops and informational events 2014:

- Workshop „Legal & Ethical Issues“ (Digitalisation and Archiving), 23.6.2014/St. Pölten University of Applied Sciences
- Workshop on Goobi, 8.10.2014/State Library of Upper Austria, Linz
- Workshop on Visual Library, 13.10.2014/Library of the University of Graz

- Workshop „Legal & Ethical Issues“ (Theme: University theses), 13.11.2014/Library of the University of Linz
- Workshops on data management plans, 19.11.2014/Vienna and 11.12.2014/Innsbruck

8.2 SUMMARY YEAR-END REPORT 2015

In the second year of the project, e-Infrastructures Austria established itself as not only a widely accepted platform for networking forums, meetings and training seminars (subgoal C), but was also able to provide the first deliverables¹. At the beginning of 2015, a survey was held as part of the project, in which researchers from 21 public universities as well as three non-university research institutions in Austria took part. The goal was to determine the practical handling of research data and to adapt services to meet current needs (subgoal B). The report „Researchers and their Data – Results of an Austria-wide Survey,”² includes the responses of over 3000 Austrian researchers.

In the meantime, all project partners were making significant progress in implementing technical infrastructures in the area of document servers (subgoal A). Prior to the begin of the project, only three of the project partners had an institutional repository, while at the end of 2015, 13 institutions were actively running a repository; four additional partners were in the development phase, while another four were in the planning phase for a repository.

In March of 2015, three representatives from IT fields were chosen to join the general assembly and the steering committees, allowing the codified involvement of the computing centres in the project: in western Austria, the Head of IT at the University of Salzburg, Florin Guma, in southern Austria the head of IT at the University of Graz, Christian Marzluf, and in eastern Austria, the head of IT at the University for Music and the Performing Arts, Maximilian Sbardellati.

Two two-day general assemblies were held in 2015 (22/23.4.2015 in Graz, 28/29.10.2015 in Innsbruck). Both general assemblies began with keynotes from internationally recognized experts. For leaders of university libraries and computing centres, three meetings were organised (22.1.2015, 27.01.2015, 14.10.2015). In the fall of 2015, the project management held orientation meetings in the regions of western Austria (16.6.2015/Innsbruck) and southern Austria (1.9.2015/Graz, 2.9.2015/Klagenfurt). The synergies team and steering committee each met many times, and many work-package-clusters organised work meetings and workshops.³

The Austrian Institute of Technology (AIT) was added to the project as an associated partner at the 5th general assembly in Graz, and was represented by the leaders of the work-package-cluster K, Bernhard Haslhofer and Michela Vignoli.

General assemblies 2015:

- 5th general assembly, 22/23.4.2015, Library of the University of Graz. Themes: Open forum on the topic of a follow-up project, keynote by Kathleen Shearer (Executive Director COAR - Confederation of Open Access Repositories), cooperation with IT services, report on the Austria-wide research data survey, election of the new chair of the general assembly

¹ <http://e-infrastructures.at/en/the-project/deliverables/>

² https://phaidra.univie.ac.at/detail_object/o:409473

³ For a detailed listing of both workshops and activities see also: <http://e-infrastructures.at/en/the-project/activities/>

- 6th general assembly, 28/29.10.2015, University of Innsbruck. Themes: DMP, Amendment of Austria copyright laws, DOI, cooperation with IT and libraries (LOI); keynote by Prof. Dietmar Kuhn (University of Innsbruck, former Austrian delegate to the e-Infrastructure Reflection Group of the European Commission)

Workshops and informational events 2015:

- Continuation of the workshop series begun in 2014 „How to Develop a Data Management Plan,” (cluster C) 27.1.2015/Graz, 19.3.2015/Salzburg
- Workshop „Creative Commons in the Sciences,” (cluster E) 3.3.2015/Vienna
- Workshop „OJS and Visual Library: Software for the management and publication of open access journals,” (cluster F) 18.3.2015/Vienna
- Workshop „Software Solution for long-term archiving from a user perspective”, (cluster J) 21.4.2016/Vienna
- Informational event „Preparation and Saving of Born Digital Objects: a Use Case from the Austrian National Archive,” 19.5.2015/Salzburg
- Workshop „Digital Object Identifiers for Research Results: Providers and Best Practice,” (cluster K) 8.6.2015/Vienna
- Informational event “Search Engines,” (cluster D) 9.6.2015/Vienna
- Workshop with Elsevier “Research Data Management. Libraries and Publishers. Roles and competencies,” 11.11.2015/Vienna

Many lectures and dissemination activities had a broad, positive national and international influence. It is to be noted that participation in these events was largely promoted via invitations. All activities were documented on the project website.⁴

8.3 SUMMARY YEAR-END REPORT 2016

In the final project year, particular attention was paid to subgoal b, research data, and subgoal C, a knowledge network. Building upon the research data report and its recommendations, the expert group „Strategies for handling research data in Austria”⁵ was created, whose task was to construct a model policy for research data management and to devise a strategic concept on how to create and implement research support initiatives, all within the first half of 2016. The constitutional meeting took place on 14.1.2016, with a plenary session on 31.3.2016, among further meetings of the nine-person subgroup. In a final meeting on 2.6.2016, a model policy for research data management in Austrian research institutions was released.

From 6-9 June 2016, the University of Vienna held a four-day, Austria-wide “Training Seminar for e-Infrastructures and Research Data Stewardship.” The goal of the event was an exchange of knowledge in the areas of research data management, workflows of the research process and digital archiving between all 26 partner institutions. The training seminar served as a complement to existing training opportunities and delivered, for the first time in a structured and cohesive format, knowledge regarding the topic of research management, support, cost development, policies and the research life cycle. In this way, it proved a sustainable effort in pursuit of subgoal C.

⁴ <http://e-infrastructures.at/en/the-project/activities/>

⁵ <http://e-infrastructures.at/en/the-project/work-package-clusters/expert-group/>



5. General assemblies. University of Graz, April 2015



6. General assemblies. University of Innsbruck, October 2015



7. General assemblies. University of Vienna, April 2016

For the involvement of computing centres and research services as the local level, the project management sent a letter of intent (LOI) to all partners well in advance of the 7th general assembly. A strengthened involvement of research services through the topic of data management plans (DMP), intensified via the Open Research Data Pilot of Horizon 2020 and the Austrian Science Fund's Research Data Pilot, as well as numerous DMP trainings.

The status of subgoal A can be seen in the report „Document Servers in the e-Infrastructures Austria Partner Institutions“. All cluster activities, including deliverables, were completed by August 2016 and can be seen here https://phaidra.univie.ac.at/detail_object/o:459171. A meeting of the Think Tank was held on 28 April 2016 at the University of Vienna.

General assemblies 2016:

- 7th general assembly, 14.4.2016, University of Vienna. Themes: LOI, experts group RDM policy, training seminar. Keynote by Alma Swan (Director of the Directory of Open Access Journals, PAST-EUR4OA): „Where Have We Reached with Open Access? – With an Emphasis on Policy“
- 8th general assembly, 18.11.2016, University of Vienna. End of the project, outlook. Keynotes by Peter Seitz (BMFWF) and Paul Ayris (Director of UCL Library Services, Project leader of LEARN)

Workshops and informational events 2016:

- DMP training on 16.3.2016, 9.5.2016, 2.6.2016 and 10.11.2016/University of Vienna; 30.3.2016/Danube University of Krems; 20.09.2016/University of Natural Resources and Life Sciences; Lecturers: Susanne Blumesberger and Barbara Sánchez Solís
- Workshop „Software Solutions for Long-Term Archivation and Repository Administration from the User's Perspective,“ 21.4.2016/University of Vienna; organised by Adelheid Mayer (cluster JJ); <http://phaidra.univie.ac.at/o:438695>

- „Training Seminar for e-Infrastructures and Research Data Stewardship,” 6-9.6.2016/University of Vienna; organised by the project management of e-Infrastructures Austria; Website: <http://e-seminar.univie.ac.at/en>; Report: <http://phaidra.univie.ac.at/o:441752>
- Workshop “Metadata Management - the Way to Open Science,” 22.6.2016/ University of Vienna; organised by Susanne Blumesberger (cluster I); <http://phaidra.univie.ac.at/o:441281>
- Workshop “Library4All – Accessible Libraries,” 3.10.2016/University of Vienna; organised by Andreas Jeitler (cluster L)
- Digital Curation Centre and e-Infrastructures Austria: Data Management Plan (DMP) Workshop, 17.11.2016/ÖAD, Vienna; organised by the project management of e-Infrastructures Austria; <http://phaidra.univie.ac.at/o:474976>
- New roles in Open Science and Data Stewardship, 25.11.2016/Venice; organised by the project management of e-Infrastructures Austria, University of Venice (Università Ca’ Foscari di Venezia) and Elsevier

9. TRANSNATIONAL ACTIVITIES

Academic libraries are very well connected. As are IT services. Networking is important to us as well. The project e-Infrastructures Austria has earned a strong reputation at an EU-level, and the events held in Austria have gained attention and interest of an international audience. The project management communicated with representatives from the European Commission (DG-Science, DG-Connect, European Open Science Cloud).

The project and many of its elements were presented many times at conferences, seminars and meetings of experts, in the following countries and organisations:

Belgium (Brussels), Germany (Berlin, Essen, Nuremberg), Norway (Tromsø), England (London), Scotland (Edinburgh), Italy (Rome, Padua, Milan, Venice), the Netherlands (Amsterdam), Portugal (Porto, Braga), Greece (Athens), Turkey, Switzerland, Denmark (Copenhagen), Sweden, Luxembourg, Chile (Santiago), UNIDO, UN-ECLAC/United Nations Economic Commission for Latin America and the Caribbean.

Projects, initiatives, associations and institutions which were introduced in connected with e-Infrastructures Austria include: OpenAIRE, Edison, Pasteur4OA, LIBER, LEARN, E-IRG - E-Infrastructure Reflection Group, DINI/Nestor Netzwerk, Deutscher Bibliothekartag, DCC - Digital Curation Centre, COAR – Confederation Open Access Repositories, RDA – Research Data Alliance, CODATA, e-Research Alliance Göttingen, TERENA, CINECA, SURF, SWISSUNIVERSITIES.

In the general assembly of the project and in selected workshops, renowned speakers from the following countries were engaged for lectures and seminars: Canada, Switzerland, United Kingdom and Germany. The following topics were introduced and discussed: governance of national initiatives, development of data management plans, research data management and related training seminars, research data management policies, the results of an Austria-wide survey regarding the handling of research data, the coordinated construction of e-infrastructures, Open Science, as well as strategies for the implementation of e-infrastructures.

These lectures helped strengthen Austria’s standing as a research location. The establishment of a knowledge network, as described in subgoal C, was widely appreciated and was met with great interest, as was the collaborative output from the work-package-clusters, the establishment of services, the training offerings, the deliverables and the materials made available.

10. WORKSHOPS, INFORMATIONAL EVENTS AND PRESENTATIONS – OVERVIEW

WORKSHOPS AND INFORMATIONAL EVENTS 2016:

- DMP trainings: 16.3.2016, 9.5.2016, 2.6.2016 and 10.11.2016/University of Vienna; 30.3.2016/Danube University of Krems; 20.9.2016/ University of Natural Resources and Life Sciences; Lecturers: Susanne Blumesberger and Barbara Sánchez Solís
- Wissenstransferzentrum OST, Continuing education programme, 13.1.2016/Technical University of Vienna; Lecture: e-Infrastructures Austria and Data Management Plans; Paolo Budroni
- Workshop Edison – Building the Data Science Profession, 9.2.2016/Brussels; Barbara Sánchez Solís for e-Infrastructures Austria; <http://edison-project.eu/competences-and-skills-europe-an-and-global-challenge-brussels-workshop>
- PASTEUR4OA/North-West Europe Meetings of Research Performing Organisations and Research Funders, 9.2.2016/Brussels; Paolo Budroni; <http://www.pasteur4oa.eu/events/159#.V-KkgjVZh8c>
- Workshop „Software Solutions for Long-Term Archivation and Repository Administration from the User´s Perspective,” 21.4.2016/University of Vienna; organised by Adelheid Mayer (cluster J); <http://phaidra.univie.ac.at/o:438695>
- Digitale Hochschule Österreich, „What’s up?“, BMFWF, 26.4.2016/Vienna, Presentation: „e-Infrastructures Austria,” Paolo Budroni
- Presentation e-Infrastructures Austria and research data survey, 24.5.2016/University of Edinburgh; Lecture „What is really needed? Towards Open Science and Research Data Management - Results of a National Survey in Austria” by Paolo Budroni, Raman Ganguly, Barbara Sánchez Solís; Meeting organised by Robin Rice (Data Librarian EDINA and Data Library, University of Edinburgh)
- Presentation e-Infrastructures Austria and research data survey, 25.5.2016/Digital Curation Centre, Edinburgh; Lecture „What is really needed? Towards Open Science and Research Data Management - Results of a National Survey in Austria” by Paolo Budroni, Raman Ganguly, Barbara Sánchez Solís; Meeting organised by Kevin Ashley (Director DCC) and Sarah Jones (Senior Institutional Support Officer DCC)
- OpenAIRE National Workshop, Rome, 31.05.2016; <http://www.cineca.it/it/content/openaire-national-workshop-2016> , Paolo Budroni (Vienna University Library and Archive Services) „What is really needed? Towards Open Science and Research Data Management - Results of a National Survey in Austria”
- „Training Seminar for e-Infrastructures and Research Data Stewardship,” 6.-9.6.2016/University of Vienna; organised by the project management of e-Infrastructures Austria; Website: <http://e-seminar.univie.ac.at/>; Event report: <http://phaidra.univie.ac.at/o:441752>
- Workshop “Metadata Management - the Way to Open Science”, 22.6.2016/University of Vienna; organised by Susanne Blumesberger (cluster I); <http://phaidra.univie.ac.at/o:441281>
- Research Data Conference, Porto, 22.9.2016, Paolo Budroni, “Towards Open Science, Results of a National Survey in Austria,” the project e-Infrastructures Austria <http://confdados.rcaap.pt/programa-final/>
- Workshop on e-accessibility, “Library4All - Accessible libraries,” 13.10.2016/University of Vienna; organised by Andreas Jeitler (cluster L)

- Digital Curation Centre and e-Infrastructures Austria: Data Management Plan (DMP) Workshop, 17.11.2016/OeAD, Vienna; organised by the project management of e-Infrastructures Austria
- I dati della ricerca in ambito umanistico. Problematiche e prospettive, 24.11.2016/Palazzo del Capitano, Padua; organised by Università degli Studi di Padova
- New roles in Open Science and Data Stewardship, 25.11.2016/Università Ca' Foscari Venezia/Elsevier

INTERNATIONAL CONFERENCES 2016 (IN COOPERATION WITH E-INFRASTRUCTURES AUSTRIA):

In April 2016, the University of Vienna hosted an international workshop and two-day international conference. Invitations were sent to all e-Infrastructures Austria project partners:

- 2nd LEARN Workshop „Research Data Management towards Open Science - The Importance of Policies,” 6.4.2016/University of Vienna; <http://learn-rdm.eu/en/workshops/2nd-workshop/>
- COAR Annual Meeting & General Assembly 2016, 12.-13.4.2016/University of Vienna; <https://www.coar-repositories.org/community/events/archive/annual-meeting-2016/>
- “LEaders Activating Research Networks (LEARN) Workshop – Caribbean,” 24.11.2016/Port of Spain, Trinidad and Tobago

WORKSHOPS AND INFORMATIONAL EVENTS 2015:

- Continuation of the workshop series begun in 2014 „How to Develop a Data Management Plan,” (cluster C) 27.1.2015/Graz, 19.3.2015/Salzburg
- Workshop „Creative Commons in the sciences,” (cluster E) 3.3.2015/Vienna
- Workshop „OJS and Visual Library: Software for the management and publication of open access journals,” (cluster F) 18.3.2015/Vienna
- Workshop „Software Solution for long-term archiving from a user perspective”, (cluster J) 21.4.2016/Vienna
- Informational event „Preparation and saving of born digital objects: a use case from the Austrian National Archive,” 19.5.2015/Salzburg
- Workshop „Digital object identifiers for research results: providers and best practice,” (cluster K) 8.6.2015/Vienna
- Informational event “Search Engines,” (cluster D) 9.6.2015/Vienna
- Workshop with Elsevier “Research Data Management. Libraries and Publishers. Roles and Competencies,” 11.11.2015/Vienna

WORKSHOPS AND INFORMATIONAL EVENTS 2014:

- Workshop „Legal & Ethical Issues” (Digitalisation and Archiving), 23.6.2014/St. Pölten University of Applied Sciences
- Workshop on Goobi, 8.10.2014/State Library of Upper Austria, Linz
- Workshop on Visual Library, 13.10.2014/Library of the University of Graz
- Workshop „Legal & Ethical Issues” (Theme: University theses), 13.11.2014/Library of the University of Linz
- Four workshops on data management plans: 19.11.2014 in Vienna, 11.12.2014 in Innsbruck

11. PUBLICATIONS – OVERVIEW

2016 PUBLICATIONS

- Paolo Budroni: Good Governance. Strukturen zur Sicherung der Nachhaltigkeit von Projekten im akademischen Umfeld. Das nationale Projekt e-Infrastructures Austria. In: ABI Technik 2016. Zeitschrift für Automation, Bau und Technik im Archiv-, Bibliotheks- und Informationswesen; 36 (1): 24-32. Online: <http://www.degruyter.com/view/j/abitech.2016.36.issue-1/issue-files/abi-tech.2016.36.issue-1.xml>
- Bruno Bauer, Paolo Budroni, Andreas Ferus, Raman Ganguly, Eva Ramminger, Barbara Sánchez Solís: e-Infrastructures Austria 2015: Bericht über das zweite Jahr des Hochschulraumstrukturmittelprojekts für den koordinierten Aufbau und die kooperative Weiterentwicklung von Repositorieninfrastrukturen. In: Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare 69 (2016) Nr. 1, S. 9-40. Online: <https://ojs.univie.ac.at/index.php/voebm/issue/view/157>
- Michael Birkner, Gerhard Gonter, Karin Lackner, Bettina Kann, Michael Kranewitter, Adelheid Mayer, Andreas Parschalk: Guideline zur Langzeitarchivierung. In: Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare 69 (2016) Nr. 1, S. 41-57. Online: <https://ojs.univie.ac.at/index.php/voebm/issue/view/157>

Note: All events, presentations and publications are documented on the project website under Activities¹.

2015 PUBLICATIONS

- Bruno Bauer, Paolo Budroni, Andreas Ferus, Raman Ganguly, Eva Ramminger und Barbara Sánchez Solís: e-Infrastructures Austria 2014: Bericht über das erste Jahr des Hochschulraumstrukturmittelprojekts. In: Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare 68 (2015) Nr. 1, S. 91-118. Online: <http://phaidra.univie.ac.at/o:387193>
- Paolo Budroni, Barbara Sánchez Solís: e-Infrastructures Austria. Ein nationales Projekt für die Aufbereitung, dauerhafte Bereitstellung und Nachnutzung von Daten an wissenschaftlichen Einrichtungen. In: Information. Wissenschaft & Praxis 2015; 66 (2–3): 129–136. Online: <http://www.degruyter.com/view/j/iwp>
- Bruno Bauer: Forschungsdaten – ein neuer Aufgabenbereich (auch) für Bibliotheken. GMS Medizin - Bibliothek – Information 15 (2015) Nr. 3, Doc16. Online: <http://www.egms.de/static/pdf/journals/mbi/2015-15/mbi000339.pdf>
- Bruno Bauer, Andreas Ferus, Juan Gorraiz, Veronika Gründhammer, Christian Gumpenberger, Nikolaus Maly, Johannes Michael Mühlegger, José Luis Preza, Barbara Sanchez-Solis, Nora Schmidt, Christian Steineder: Forschende und ihre Daten. Ergebnisse einer österreichweiten Befragung – Report 2015. Version 1.2. DOI: 10.5281/zenodo.32043 - Online: <http://phaidra.univie.ac.at/o:407513>
- Bruno Bauer, Andreas Ferus, Juan Gorraiz, Veronika Gründhammer, Christian Gumpenberger, Nikolaus Maly, Johannes Michael Mühlegger, José Luis Preza, Barbara Sanchez-Solis, Nora Schmidt, Christian Steineder: Researchers and their data. Results of an Austria survey – Report 2015. Version 1.2. DOI: 10.5281/zenodo.34005. - Online: <https://phaidra.univie.ac.at/o:409318>

¹ <http://e-infrastructures.at/en/the-project/activities/>

- Bruno Bauer, Andreas Ferus, Juan Gorraiz, Veronika Gründhammer, Christian Gumpenberger, Nikolaus Maly, Johannes Michael Mühlegger, José Luis Preza, Barbara Sanchez-Solis, Nora Schmidt, Christian Steineder: Forschende und ihre Daten: Ergebnisse einer österreichweiten Befragung. Report 2015 – Executive Summary und Empfehlungen. Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen & Bibliothekare 68 (2015), Nr. 3/4, S. 566-579. Online: <http://eprints.rclis.org/28737/>
- Susanne Blumesberger: Die Welt der Metadaten im Universum von Repositorien. Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen & Bibliothekare 68 (2015) Nr. 3/4, S. 515-528. Online: <http://eprints.rclis.org/28734/>
- e-Infrastructures Austria. uni:it. IT-Newsletter des Zentralen Informatikdienstes der University of Vienna. Staff. 2/2015. Online: <http://uni-it.univie.ac.at/mitarbeiterinnen/ausgaben/artikel-single/article/e-infrastructures-austria/>
- Raman Ganguly, Paolo Budroni: E-Infrastructures Austria: Eine Referenzarchitektur zur dauerhaften Bereitstellung von Daten aus der Forschung als Aufgabe für Wissenschaftliche Bibliotheken. Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen & Bibliothekare 68 (2015) Nr. 2, S.201-216. Online:<http://eprints.rclis.org/28113/>

2015 LECTURES, PRESENTATIONS AND POSTERS

- Eva Ramminger, Patrick Danowski: Entwicklungen bei e-infrastructures Austria. Informationsveranstaltung des Open Access Network Austria (OANA). Vienna, 21.01.2015. – Online: http://www.oana.at/fileadmin/user_upload/p_oana/oana/Pr%C3%A4sentationen_2015/07_OANA_E-infrastructures_combined.pdf
- Paolo Budroni, Raman Ganguly: e-Infrastructures Austria: eine Referenzarchitektur zur dauerhaften Bereitstellung von Forschungsdaten als Aufgabe für wissenschaftliche Bibliotheken. – „Digitale Bibliothek 2015 – Unser digitales Gedächtnis“. Graz, 23. und 24. Februar 2015. Online: http://conference.ait.co.at/digbib/public/conferences/5/schedConfs/7/presentations/V3_e-Infrastructures_final_Budroni_Ganguly.pdf
- Raman Ganguly: e-Infrastructures Austria. Modell für die Aufbewahrung digitaler Daten [Poster]. – „Digitale Bibliothek 2015 – Unser digitales Gedächtnis“. Graz, 23. und 24. Februar 2015. Online: <http://phaidra.univie.ac.at/o:387127>
- Paolo Budroni, Raman Ganguly: Datenmanagementpläne basierend auf Workflow- und Rollen-Modellen. 2. Workshop der DINI/nestor-AG Forschungsdaten: „Datenmanagementpläne und ihre Bedeutung im Forschungsdatenmanagement“. Online: <http://dini.de/veranstaltungen/workshops/datenmanagementplaene/>
- Barbara Sánchez Solís, Raman Ganguly: e-Infrastructures Austria. Verbundtag des Österreichischen Bibliothekenverbundes: „Neue Infrastrukturen in Österreichs Wissenschaft“. Linz, 6. Mai 2015. Online: <https://www.obvsg.at/wir-ueber-uns/aktuelles/news/vier-linzer-angen-sehen-mehr-als-zwei-verbundtag-2015/>
- Paolo Budroni: e-Infrastructures Austria: Bibliothekarische Strategien zur Projektabwicklung auf nationaler Ebene. 104. Deutscher Bibliothekartag in Nuremberg 2015: „Bibliotheken – Von Anfang an Zukunft“. Online: <https://opus4.kobv.de/opus4-bib-info/frontdoor/index/index/docId/1756>
- Barbara Sánchez Solís, Paolo Budroni: e-Infrastructures Austria. Workshop Foster / FFG: „Open Access und Open Data in Horizon 2020“. Vienna, 11.06.2015. Online: <https://www.fosteropenscience.eu/content/e-infrastructures-austria>

- Sandor Kopacsi, Raman Ganguly, Susanne Blumesberger, Barbara Sánchez Solís: Permanent storage and efficient re-use of digital research- and educational data [Poster]. CERN Workshop on Innovations in Scholarly Communication (OAI9). Graduate Institute & Campus Biotech (University of Geneva), 17-19 June 2015. Online: <https://indico.cern.ch/event/332370/session/9/contribution/60>
- Barbara Sánchez Solís, Paolo Budroni: Data management plans based on digital workflow and role models: A report on a DMP project within the frame of e-Infrastructures Austria. „Libraries and research data: Towards a new leadership role Steering Committee Scholarly Communication and Research Infrastructures.“ LIBER Annual Conference, London, 23-24 June 2015. Developed in collaboration of LIBER, FOSTER & RLUK. Online: <http://slideplayer.com/slide/6627522/>
- Bruno Bauer: Forschungsdaten - Ein neuer Aufgabenbereich (auch) für Bibliotheken. AGMB-Jahrestagung. „Bibliotheken im Fluss“. Basel, 07.-09.09.2015. Online: <http://www.egms.de/static/de/meetings/agmb2015/15agmb04.shtml>
- Susanne Blumesberger: Mit barrierearmen Metadaten treffsicher durch die digitale Welt. 32. Österreichischer Bibliothekartag: „Offen(siv)e Bibliotheken: Neue Zugänge, neue Strukturen, neue Chancen“. Vienna: 15.-18.09.2015. Online: <https://opus4.kobv.de/opus4-bib-info/frontdoor/index/index/docId/2095>
- Susanne Blumesberger: Requirements-Management aus technischer und nichttechnischer Sicht. 32. Österreichischer Bibliothekartag: „Offen(siv)e Bibliotheken: Neue Zugänge, neue Strukturen, neue Chancen“. Vienna: 15.-18.09.2015. Online: <https://opus4.kobv.de/opus4-bib-info/frontdoor/index/index/docId/2100>
- Barbara Sánchez Solís, Bruno Bauer: e-Infrastructures Austria: Ein österreichweites Projekt für den koordinierten Aufbau und die Weiterentwicklung von Repositorieninfrastrukturen. Slot 5.1: Forschungsdaten und Repositorien. 32. Österreichischen Bibliothekartag: „Offen(siv)e Bibliotheken: Neue Zugänge, neue Strukturen, neue Chancen“. Vienna: 15.-18.09.2015. Online: <https://opus4.kobv.de/opus4-bib-info/frontdoor/index/index/docId/2186>
- Christian Gumpenberger: Tu felix Austria - Oscar oder Goldene Himbeere für den Umgang mit Forschungsdaten? Slot 5.1: Forschungsdaten und Repositorien. 32. Österreichischen Bibliothekartag: „Offen(siv)e Bibliotheken: Neue Zugänge, neue Strukturen, neue Chancen“. Vienna: 15.-18.09.2015. Online: https://bibliothekartag2015.univie.ac.at/fileadmin/user_upload/k_bibliothekartag2015/pdf/BT15-5_1.pdf
- Barbara Petritsch: Forschungsdaten Repository DataRep am IST Austria: Vorbereitung, Einführung, Ausblick. Slot 5.1: Forschungsdaten und Repositorien. 32. Österreichischen Bibliothekartag: „Offen(siv)e Bibliotheken: Neue Zugänge, neue Strukturen, neue Chancen“. Vienna: 15.-18.09.2015. Online: <https://opus4.kobv.de/opus4-bib-info/frontdoor/index/index/docId/2195>
- Paolo Budroni, Katharina Ernst, Johannes Michael Mühlegger, Barbara Sánchez Solís: Österreichs Forschende und ihre Daten [Poster]. – Österreichischer Bibliothekartag. Vienna: 15.-18.09.2015. Online: https://phaidra.univie.ac.at/detail_object/o:407560
- Paolo Budroni, Barbara Sánchez Solís: Nationale Befragung zu Forschungsdatenmanagement – Erfahrung und Bericht aller österreichischen Universitäten. 4. DINI/nestor-Workshop „Forschungsdaten auswählen und bewerten“. Universität Duisburg-Essen, 17. November 2015. Online: http://www.forschungsdaten.org/index.php/Datei:06--budroni-solis--eInfra_dininestor_Essen_1311.pdf
- Paolo Budroni, Barbara Sánchez Solís: Research Data Management in Austria – A manageable task for Austrian research institutions? Munin Conference on Scholarly Publishing. Tenth Annual

Conference, 30 Nov.-1 Dec. 2015, Tromsø, Norway. Online: http://site.uit.no/muninconf/?page_id=453

- Paolo Budroni, Katharina Ernst, Johannes Michael Mühlegger, Barbara Sánchez Solís: Austria's Researchers and their Data [Poster]. – Munin Conference on Scholarly Publishing. Tenth Annual Conference, 30 Nov.-1 Dec. 2015, Tromsø, Norway. Online: https://phaidra.univie.ac.at/detail_object/o:409447
- Paolo Budroni, Barbara Sánchez Solís: Data Management Plans. Copenhagen, 15th December 2015. Online: <https://sbprojects.statsbiblioteket.dk/display/DAT/151215+Meeting+w+e+infra-structure+Austria>

2014 PUBLICATIONS

- Barbara Sánchez Solís: e-Infrastructures Austria. In: Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare 67 (2014) Nr. 2, S. 195-204. Online: <http://eprints.rclis.org/23845/>
- Bruno Bauer, Michael Birkner, Andrea Braidt, Andreas Ferus, Michaela Glanz, Eva Ramminger, Lisa Schilhan, Werner Schlacher, Maria Seissl, Ute Weiner: e-Infrastructures Austria - aus der Perspektive beteiligter Organisationen. In: Mitteilungen der Vereinigung Österreichischer Bibliothekarinnen und Bibliothekare 67 (2014), N. 2, S. 205-214. Online: <http://eprints.rclis.org/23846/>
- Bruno Bauer: Open-Access-Kooperationen in Österreich: Open Access Network Austria und E-Infrastructures Austria – aktuelle Entwicklungen seit 2012. In: GMS Medizin - Bibliothek – Information 14 (2014), Nr. 3, Doc22. Online: <http://www.egms.de/static/pdf/journals/mbi/2014-14/mbi000319.pdf>

2014 LECTURES, PRESENTATIONS AND POSTERS

- e-Infrastructures Austria, a project to foster the coordinated development of Austria-wide infrastructures for digital resources in research and academic teaching, 19.-20. Mai 2014: 3rd LIBER Workshop on Digital Data Curation, in Zusammenarbeit mit LIBER, KB-NL, Universität Leiden, ÖNB. Ort: University of Vienna Online: <http://liber2014.univie.ac.at/programme/> Lecturer: Paolo Budroni
- e-Infrastructures Austria, Barbara Sánchez Solís, Mitteilungen der VÖB 67 (2014) Nr. 2, 195f Online: https://phaidra.univie.ac.at/detail_object/o:360033
- Moderation des Panels „Informationsstruktur und Forschungsdaten“ im Namen von e-Infrastructures Austria (Paolo Budroni) - 17.-19. September 2014: ODOK 2014 in Zell am See. Online: <http://www.odok.at/2014/de/programm.htm>
- Ein gesamtösterreichischer Ansatz zum Thema Forschungsdaten - 17.-19. September 2014: ODOK 2014 in Zell am See. Online: <http://www.odok.at/2014/de/programm.htm>. Lecturers: Barbara Sánchez Solís and Veronika Gründhammer. Presentation: <http://phaidra.univie.ac.at/o:387187> Online: <http://phaidra.univie.ac.at/o:387189>
- Forschungsdaten aus Sicht der IT-Dienstleister - 17.-19. September 2014: ODOK 2014 in Zell am See. Lecturer: Raman Ganguly. Online: <http://www.odok.at/2014/de/programm.htm>
- „e-Infrastructures Austria“ – Ein gesamtösterreichischer Ansatz zum Thema Forschungsdaten - 2. Oktober 2014: Workshop der AG Forschungsdaten „Institutionelle Forschungsdaten-Policies und strategische Planung des Forschungsdatenmanagements“, Computer- und Medienservice der Hum-

boldt-Universität zu Berlin (Berlin-Adlershof). Lecturers: Barbara Sánchez Solís and Paolo Budroni
Online: <http://www.forschungsdaten.org/index.php/DINI-nestor-WS1>

- About Convergence of Knowledge. The project e-Infrastructures Austria, an interdisciplinary case study - 26. / 27. November 2014, Munin Conference on Scholarly Publishing, University of Tromsø – The Arctic University of Norway site.uit.no/muninconf/ - The presentations including speakers' biographies and the films is available at the conference proceedings site. Online: <http://dx.doi.org/10.7557/scs.2014.1>

12. SUMMARY OF THE PROJECT MANAGEMENT

Paolo Budroni, Project Director – Conclusion.

The National Project e-Infrastructures Austria

The project e-Infrastructures Austria impressed a national and international audience by showing the effects that the success and visibility of Austrian research support institutions can have: universities libraries not only brought this project to life, but reacted proactively to the challenges posed by the rapidly changing field of research data management. They even invited other important stakeholders to cooperate, and initiated a sustainable and structured dialogue with university IT services. Representatives from the research community also flocked to join in the dialogue.

In this way, outstanding results were produced by the project, including: an Austria-wide and internationally recognized research data survey, which determined the need for research support services, and analysed the existing document server and software infrastructures in the examined institutions. Today, we can offer bilingual data management plans for Austrian research sponsors H2020 projects, and have learned how to train others in the implementation of those plans.

The project e-Infrastructures Austria made clear the need for training and continued education in the key areas of research data management and data stewardship, which led to a several day training seminar on this topic. It was open to all partner institutions and their research support services and the research community. This training effort could be the basic foundation for further certification courses.

Cooperation with the H2020 Project LEARN yielded important documents on the topics of policies and research data management. An example of this collaboration was the work of the 22-member expert group, whose task was the construction of a model policy for research data management in Austrian research institutions. The group was able to produce myriad deliverables and findings, and the acceptance found in the relevant communities was truly gratifying. The community presence at relevant congresses in and outside of Austria was strong, as invitations were regularly sent. The conceptual work regarding research data management, open access to resources, clarification of legal issues and the establishment of e-infrastructures led to the increasing importance of the topic of education resources in the project. This eventually led to the inception of the federal grant for higher education funded project „Open Education Austria“, in 2016.

A considerable part of the knowledge will also flow into the national project AuSSDA (Austrian Social Science Data Archive), based at the University of Vienna. This three-year project uncovers new ways to change organisational structures and take strategic actions in order to have an impact and grow as a modern research institution in the area of e-infrastructures.

RECOMMENDATIONS FOR EVENTUAL FOLLOW-UP INITIATIVES

The foundation for the success of e-Infrastructures Austria lies in the network of knowledge. Every action which feeds, strengthens and lets this network grow is to be welcomed and encouraged.

Concrete actions include:

- an accepted, functioning and enacted Good Governance which manages the relationship between project partners
- a deeper engagement on the part of diverse actors in the area of research support
- the establishment of reference points or central services for research support at each research institution
- the establishment of shared services (for example, services in related institutions, such as the three medical universities or the five art universities)
- transversal services, which could be implemented by all (for example, a terminology server for all research institutions, a legal service for handling research data (licensing questions, user rights, etc.) or a national service for issuing DOIs and handles
- the implementation of research data management policies at all institutions
- the strengthening of internationalisation through membership in EU-projects, international initiatives and sponsored publication of articles

The path has been laid. It is up to us to follow it. And I am certain that follow-up projects will be able to build successfully on the foundation laid by the results of this project. The building blocks are there, as the research community requested, to offer research support services, trainings and legal services, to build central reference points and to initiate transversal services.

At this point, I would like to express my sincere gratitude to my colleagues in project management, as we were able to walk this three-year parcours together, sometimes at a sprint! Without this collaboration, many initiatives would have remained only ideas. Thank you to Barbara, Raman, José Luis, our newly acquired Katharina and last but not least, on the valuable and competent advice of our external advisor Seyavash. I would also like to express my thanks for the positive stance taken by the head of the Library of the University of Vienna, who secured this project and supported it in turbulent times.

It may sound old-fashioned, but I will say it anyway, because it is how I feel: thank you to everyone who worked on this project. Your names are mentioned in thanks in this report, as are the names of your institutions.

Paolo Budroni, Project Director e-Infrastructures Austria

APPENDIX A - WEBSITE



[STARTPAGE](#) | [THE PROJECT](#) | [STRUCTURE](#) | [PARTNERS](#) | [CONTACTS](#) | [Deutsch](#)

Welcome to e-Infrastructures Austria!

e-Infrastructures Austria is a project for the coordinated establishment and development of Repository infrastructures for digital resources in research and science throughout Austria to securely archive and publish digital publications, multimedia objects and other digital data resulting from research and education.

Objectives

Subproject A – Construction of Document Servers

Subproject B – Design and Construction of Repository Infrastructures for Research Data and other complex data objects

Subproject C – Establishment of a Knowledge Network and Knowledge Infrastructure to manage digital resources and accessible to all 25 Partners



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Start Stop (2)



Generalversammlung April 2015 (Graz)



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austria

STARTPAGE | THE PROJECT | STRUCTURE | PARTNERS | CONTACTS | Suchen... Deutsch

Objectives
Work-Package Clusters
Deliverables
Guiding Principles
Target audience
Benefits
International Context
Activities
Download Area


The Project

e-Infrastructures Austria, a three-year partnership project, started in January 2014 sponsored by the Federal Ministry of Science, Research and Economics (BMWFV).

The objective of this project is the coordinated establishment and development of Repository Infrastructures for digital resources in research and science throughout Austria.

Through networking and pooling of expertise and resources, e-Infrastructures Austria will establish a Network of Knowledge and Expertise that will provide the required support and assistance in the areas of Repository implementation and further enhancements to related technical systems and services.

e-Infrastructures Austria promotes the exchange of experiences on technical, organisational, legal, and content related issues between the Libraries, IT services, scientists and researchers (at both local and national level) who take part in the different working groups, events, and workshops of the project. Particular emphasis is placed on the handling of complex data such as research data and multimedia content.



Facts

Start: January 1, 2014
End: December 31, 2016
Project coordination: [University of Vienna](#)
Project partners: 25 [Partner Institutions](#)
Client: Federal Ministry of Science, Research and Economics [BMWFV](#)

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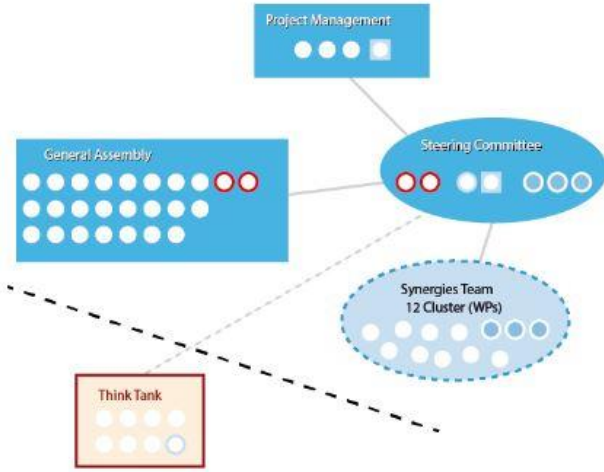
STARTPAGE | THE PROJECT | STRUCTURE | PARTNERS | CONTACTS | Suchen... Deutsch

Project Management
General Assembly
Steering Committee
Synergies Team
Think Tank
Consensual Agreement
Information platform

Structure

The internal management structure of the Partner Network includes four institutional bodies and a Think Tank. The Think Tank is composed of Scientists and provides external insight to the project. Roles and responsibilities within the project are regulated through a [Consensual Agreement](#).

For more information about the institutional bodies, please click on the image below:



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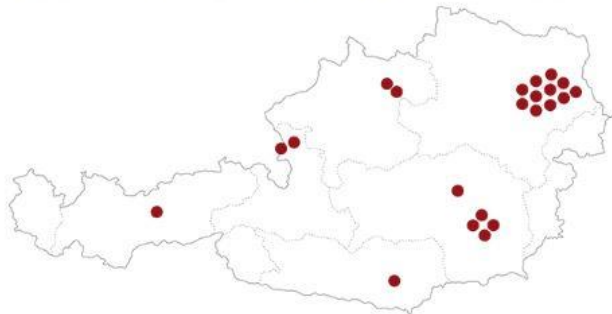
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Associated Partners
Observers
Search partners
Structure network

e-Infrastructures Austria is a National Project developed in cooperation with 25 partners



Academy of Fine Arts Vienna
Vienna Chamber of Labour
IST Austria
Medical University Graz
Medical University of Vienna
Montanuniversität Leoben
Austrian Academy of Sciences
Österreichische Bibliothekenverbund und Service
GesmbH
Austrian National Library
Graz University of Technology
Vienna University of Technology
University of Applied Arts Vienna
University of Natural Resources and Life Sciences
Vienna

University of Arts and Design Linz
University of Music and Performing Arts Graz
University of Music and Performing Arts Vienna
University of Graz
University of Innsbruck
University of Klagenfurt
University of Linz
University Mozarteum Salzburg
University of Salzburg
University of Vienna
University of Veterinary Medicine Vienna
Vienna University of Economics and Business
Associated Partner: AIT (Austrian Institute of
Technology)

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University of Vienna, Library and Archives of the University
of Vienna

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Organization and Communication Management:
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Technical Project Coordination:
José Luis Preza Díaz (until July 2016)
Central Information Services, University of Vienna

Contact: office@e-infrastructures.at

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APPENDIX B - CONSENSUAL AGREEMENT

Governance [Status 15th July 2014] of the project e-Infrastructures Austria for the purpose of construction and development of a network-based infrastructure for networking and providing access to digital resources and research data in Austria.

The participants:

*The representatives of the Austrian National Library accept the status of "external experts".

Hereinafter individually "Project Partner" and collectively "Partner Community".

PREAMBLE

E-Infrastructures Austria is a project that is intended to support the higher education infrastructure provided by the Federal Ministry of Science, Research and Economics. The Project Partners are united by their common interest in the coordinated development of the Austrian Network for the establishment and development of common e-infrastructure by way of pooling resources and existing knowledge (e-infrastructure Austria, hereinafter "the project"). The project aims include the creation, colonization and cross-linking of repositories/document servers as local entities with the individual equal project partners, the construction of an Austrian repository with an expanded scope, and the establishment of a competence network for research data and data from research-led teaching of both heterogeneous origin and varying accessibility. The project should contribute to the areas of protection and backing up of data, archiving and making digital resources and research data available to increase the overall efficiency of the system, create concrete synergies, maximize the benefits of research data for students and teachers, promote participation in university-wide IT-based management systems and the sharing of knowledge which should enable processes and technologies in an intangibly arranged framework. The rights and obligations of the project partners are a result of the project application "E-Infrastructures Austria: Structure and Development of a Repository infrastructure (upon request of the University of Vienna)" from 30.10.2013 as well as the policy for project implementation, which was signed by the partners (hereinafter "Policy"). The governance does not extend beyond the rights and obligations defined in the project proposal and in the policy.

1. PURPOSE AND LEGAL NATURE

1.1 Purpose

The purpose of this agreement is to establish the project proposal and the rights and obligations collected from the policy by the partners. This includes defining the following: the relationship of the partners to each other, the regulation of operations, the institutions and the project management including the rights, duties and responsibilities with respect to the project, and to determine the results and to control free access to the results of joint work carried out within the project and scientifically relevant data with respect to the assignment of intellectual property rights.

1.2 Legal Nature

This agreement defines the rules for each project partner and those which apply to the cooperation within the framework of the project. In cases of doubt, unclarity or disagreement, this should not be considered a final reference. In particular, this agreement does not create any partner or other company, either in the legal sense or in an economic sense. This agreement does not grant the partner community any legal personality. It cannot sue or be sued. The project partners are equal partners and each partner acts on their own individual account and within their own responsibility. Neither a project partner nor the partner community as a whole can legally conduct business that affects another or other project partners. In particular, project partners cannot conclude any contracts and are not empowered to make or accept any legally relevant declarations. Subject to the provisions set forth under the "Management Structure" in this agreement, the parties are not mutually exclusive. Legally binding obligations of a project partner to a third party require the declaration of intent by the respective project partner in order to be effective.

2. OCCURANCE, DURATION AND TERMINATION

This Agreement shall enter into force on 1 July 2014 and will remain as such until December 31, 2016. In addition, this agreement shall remain in force with respect to the rights, duties and responsibilities, which are to be completed after the project. In particular, the terms of this agreement are in effect after termination of the agreement, as required to enforce the rights, duties and responsibilities agreed prior to the termination.

The agreement may be amended or repealed by the voting project partners. Termination requires a resolution of the General Assembly by a qualified majority. Any withdrawal from the project by individual project partners is not possible.

3. RESPONSIBILITIES AND LIABILITY

3.1 General

The project partners are bound to each other and commit to mutual consideration and respect for the rights and legal interests of the other partners. The Project Partners agree to perform the activities and responsibilities of the project defined in the project proposal and the guidelines completely and on time to the best of their knowledge and good faith in the course of the project. The project partners will inform the project manager as soon as possible about events that take place in their own individual sphere which are likely to jeopardize the success of the project or an aspect of the project.

3.2 Breach of Agreement

In the event that the competent authority determines within the partner community that a project partner is injuring this agreement by his behavior, the violator will be given the opportunity to comment, to resolve said injury within a reasonable time and/or provide remedy for these injuring consequences.

3.3 Involvement of Third Parties

A project partner who engages a third party in the implementation of the "E-Infrastructures Austria" project tasks shall be liable to the project partners for any fault arising by actions of those third parties. Through the award of subcontracts, the project partners are not relieved of the obligations that they have assumed under this agreement. The delegating project partner must ensure, in particular, that such subcontracting enables the fulfillment of the project and the access rights of the other project partners are not affected by this subcontracting.

3.4 Liability of the Partners to Each Other / No Acceptance of Guarantee

The project partners agree to the application of scientific accuracy and compliance with the recognized rules of technology and science. A project partner who makes tangible and intangible goods and information available to the other project partners or incorporates such goods and information in any other way into the project must make an effort as much as possible and reasonable for that partner to not conflict with the rights of a third party. Project partners are not obligated to perform patent searches or other similar research. The project partners do not guarantee the freedom of goods, information and related results therein of third parties as related to property rights, and shall not be liable in case of breach of third-party property rights related to the use of goods, knowledge and results introduced to project partners which are or have been developed by another project partner. Furthermore, the project partners do not guarantee nor are they liable to each other for the completeness, correctness or absence of defects of any transferred goods and information. Each project partner will correct or replace defects reported to him as soon as possible within a reasonable time. A statement of guarantee or other form of guarantee will not be accepted. The project partner who intends to use the introduced material, goods or information must use this at their own responsibility and at their own risk.

3.5 Limiting Contractual Liability

This agreement does not imply any basis for any claim granting the right of a project partner to demand compensation from another project partner. The liability rules of the policy remain unaffected.

3.6 Liability for Damages to Third Parties

If a project partner shall enter into a legally relevant relationship with a third party, the respective project partner is the sole part of that relationship who is entitled by the policy and who is also obligated by the framework of the policy. This applies even if the relation in question is related to the project or a result or a product of the project. Each partner is liable only for damages to third parties resulting from the implementation of its project part.

3.7 Project Supervision

As part of the project supervision, regular reporting to the Federal Ministry for Science, Research and Economy will be carried out as well as an examination of the financial management by the relevant departments of the project partners and the Federal Ministry for Science, Research and Economy.

4. INTELLECTUAL PROPERTY

4.1 Precedence of Statutory Intellectual Property

If within the project, results and products are developed which are protected by intellectual property laws, the relevant rules apply. In particular, laws governing the granting of rights shall apply in the determination of ownership as they normally would apply in copyright and patent law. Nevertheless, the project partners should endeavor to make the results and products of the project available to each other and to effect the maximum dissemination of such. These open-license models will be integrated into the course of the project. A deviation from the statutory intellectual property rules, to the extent that is possible and permissible, requires in each case a separate agreement, in particular by open licensing models.

4.2 Rights ownership / use and exploitation of introduced goods and information

Unless otherwise agreed, the project partners remain the rightsholders regarding goods and information they have introduced. This also applies to those goods which a project partner introduces into the project. The contributing project partner grants the other project partners – for the purposes of the project regarding goods contributed by him – a royalty-free, non-exclusive, non-transferable license in text form or in writing to use the work in question. Permission granted to use such is valid for the duration of the project, unless it is regulated otherwise.

4.3 Use Outside the Partner Community

Any use outside the partner community, particularly the publication of results arising from the project is strongly encouraged. A proposed use or publication is to be promptly presented in text form by the project manager before the planned publication and the relevant project partners. The rejection of a proposed evaluation by a project partner requires a qualified notice. This will only be justified if it is proven to substantiate the fact, where the proposed use would impair the legitimate interests of the project partner concerned or the partner community. These include interests of commercial and academic nature. The project partner requesting an evaluation will be given the opportunity to make the evaluation so that the alleged relevant conflict of interest is eliminated and the publication can still occur.

5. ADMINISTRATIVE STRUCTURE

5.1 The Institutions

The internal management structure of the partner community consists of the following institutions:

- (a) The General Assembly acts as the representative body and as the final body responsible for decision-making.
- (b) The Project Manager ensures the optimization of processes and acts as an intermediary and coordinator between the institutions of the Community Partner and the project partners.
- (c) The Steering Committee sets the basic orientation of the project.
- (d) The Synergies Team bears the responsibility for expertise in each discipline.
- (e) The Think Tank provides external influence and stimulus.

5.2 General Information about the Processes in the Institutions of the Partner Community

5.2.1 Participation in Meetings and Decisions

Each voting project partner has one vote. All members of an institution must attend the meetings as well as resolutions of the respective institution. If any partner is unable to attend, they must ensure that they are represented or that they transfer their vote in advance in writing or in text form, in particular, by e-mail to another member of the respective institution. Such representation is to be communicated to the chairman of each institution.

5.2.2 Regular Meetings/ Convening of Meetings

Each institution should regularly – as listed below – convene. Any additional meetings are held as extraordinary meetings as required. The relevant body decides by resolution adopted by a simple majority about the necessity of holding an extraordinary meeting. The decision can be brought about (circular resolution) by means of distance communication (e-mail, phone).

The General Assembly meets at least once a year.

The Steering Committee meets at least twice a year.

The Synergies team meets at least four times a year.

The think tank is at least three times a year.

5.2.3 The Convening of Meetings/Decision-Making Sessions

The Chairman of an institution shall convene the next meeting by invitation. Invitations will be sent in writing (e-mail) two weeks in advance to members and include the items on the agenda. The voting audience can decide by a simple majority during a session to include items on the agenda. For the General Assemblies, resolutions require a two-thirds majority of the voting members. The Steering Committee and the Synergies Team resolutions require a simple majority of the voting members. A committee is a quorum of two-thirds of its voting members or their representatives who are present. Circular resolutions are allowed. They can be initiated by the chairman or coordinator of each institution. Their implementation is to be organized by the coordination office and supervised by the project leader.

5.3 Organization of Each Institution

5.3.1 The General Assembly

5.3.1.1 Hierarchy / Representation

The General Assembly shall be composed of one representative from each project partner, a chairman and a deputy chairman, totaling 27 people, 24 of which with voting rights (the representative of the Austrian National Library and Chairman and Deputy Chairman have no voting rights). The General Assembly shall elect a chairman and deputy chairman from among its members. The term of office of the chairman and the deputy is limited to one year. They may be re-elected after this term. The first term will start on 1 July 2014 and end on 31 December 2015. When entering office, the Chairman and the alternates may no longer represent the project partners to which they belong. The concerned project partners appoint new representatives. The General Assembly appoints their chairmen and their deputies in the Steering Committee. The inaugural session of the project and all subsequent meetings shall be convened by the Chairman of the General Assembly in consultation with the project manager. At the General Meeting, employees of the individual project partners can also participate.

5.3.1.2 Responsibilities

The General Assembly serves as a common forum for all project partners. In this committee, votes are to be carried out. The General Assembly is the ultimate body responsible for basic decisions.

5.3.2 The Steering Committee

5.3.2.1 Composition

The Steering Committee consists of seven persons. It is made up of three representatives of the Synergies Team, the project manager as a co-opted member without a vote, the Chairman of the General Assembly, the Vice-Chairman of the General Assembly and the Coordinator of the Think Tank. The Steering Committee shall be convened by the project leader and selects a coordinator.

Weighting of voting: If an institution provides more than one representative for the Steering Committee, this institution is still represented by only one vote. The Coordinator of the Think Tank has an advisory function and therefore no right to vote.

5.3.2.2 Responsibilities

The Steering Committee gives impetus to the basic orientation of the project based on the resolutions of the General Assembly. It comments, reviews and recommends the drafts for the Work-Package-cluster (WP-cluster), which are submitted to it by the Synergies Team. The Steering Team regularly reports to the General Assembly.

5.3.3 The Synergies Team

5.3.3.1 Hierarchy / Representation

The members of the Synergies Team shall consist of the heads of the WP-clusters in which the project work is completed, and the project leader. The WP-clusters consist of representatives of academic institutions working together on the implementation of the project. The Synergies Team selects a coordinator and a deputy. The Synergies Team sends three representatives to the Steering Committee. The first meeting will be convened by the Project Leader.

5.3.3.2 Responsibilities

The Synergies Team shall submit drafts and recommendations from the WP-cluster to the Steering Committee. It will also use regular meetings to insure proper exchange between the different clusters and thereby provide synergies for the project. The Synergies Team is responsible within the partner community for maintaining the professional level (technical editing of works and so on) of the project. The Synergies Team reports to the Steering Committee.

5.3.4 The Project Management

5.3.4.1 Hierarchy / Representation

The Project Management ensures the professionalism in the project. The Project Manager and the Coordination Office are located at the University Library of the University of Vienna. The coordination of technical agendas of the project is to take place at the Vienna University Computer Center at the University of Vienna. Planning costs, other resource planning and paying practices for projects are carried out at the University Library of the University of Vienna.

5.3.4.2 Responsibilities

The main tasks to be undertaken by the project management are as follows: Cost planning and other resource planning and financial management; construction and management of the Coordination Office; coordination in building the structure and services for the project in technical and non-technical fields; coordination of activities, methods and instruments for the implementation of the project; definition of requirements; definition of project phases; preparation of plans and schedules; definition of operation sequences; initiate processes; monitoring of processes in e-Infrastructures Austria; monitoring of appointments; official completion of tasks; acceptance of the final work and results; definition of evaluation processes; initiation of evaluation processes; cooperation in the creation of definitions in the individual WP-cluster; participation in the work in the individual WP-cluster; assistance in legal matters; definition of rules for partner management; help with organizational issues at the individual project partners; reporting (deliverables and other official documents); coordination and structure of the ticketing system, Wikis, project management services and documentation center of the project; structure of the web presentation; external communication; liaising with external partners; coordination of communication both internally (within the partner network); coordination in the creation of a "National Survey" and a domestic "environmental analysis"; perception of orientation meetings with the client; and regular exercise of controlling conversations with the client. The main tasks to be performed by the Coordination Office are: Support the project manager in the coordination of the project; acquisition and coordination of back-office functions of the clearing house of the project; contact establishment and maintenance of contacts with opinion leaders / at the 25 partner institutions of the project; support and advising specialists from the individual WP-clusters; observation and analysis of developments in the various WPs of the project; active participation in the meetings and assemblies; involvement in the initiation and organization of partner events; support of marketing activities in collaboration with the project and the partners.

The project management reports to the General Assembly.

5.3.5 The Think Tank

5.3.5.1 Hierarchy / Representation

The Think Tank is a group of internal organization and external organization personalities from science, society and economy that will enrich the project with impetus from "outside" (The Think Tank enables "thinking outside the box"). The Think Tank elects a coordinator and sends this person to the Steering Committee.

5.3.5.2 Responsibilities

The Think Tank can actively participate in the definition of long-term development strategies and can provide impetus for their implementation. The results of its work are, as recommendations, not binding.

6. CONFIDENTIALITY

The project partners agree to keep confidential, not disclose and preserve all circumstances and processes (business and trade secrets) which have become knowledge of the project partners and the partner community during the project, both during the project and after its termination. The obligation of confidentiality shall not extend to such knowledge that is freely available or is or was known by the receiving project partners prior to this agreement without any obligation of confidentiality, or which have been made available to the receiving project partners from third parties that are not subject to confidentiality obligations without restriction. Any third party involved should agree to secrecy in writing by the chairman or coordinator of the included institution.

7. FINAL PROVISIONS

Changes and additions to this agreement must be decided in the General Assembly by a two-thirds majority. Verbal collateral agreements do not exist. No project partners can make on a different agreement from the actual project, as long as the deviation is not fixed in writing. If any provision of this agreement proves to be invalid, the validity of the remaining provisions shall not be affected. In such a case, the invalid provision will be replaced by a term or provision by resolution of the General Assembly that suits the purpose of the invalid provision, and in particular what the project partners desire with the greatest possible extent of resolution. The same also applies if gap in the implementation of the project should arise requiring supplementation.

The project partners each bear their own cost burden.

APPENDIX C - LETTER OF INTENT (LOI)

LETTER OF INTENT

Declaration of intent aiding the coordinated establishment of a repository landscape for optimising a network-based infrastructure and making accessible digital resources and research data

The involved organisation structures and services of the project partners

[University library/research support service of institution X]

[Central computing service of institution X]

– thereafter, name and explain individual organisational units:

PREAMBLE

The organisational units express their mutual interest in the coordinated optimisation of shared e-infrastructures by bundling existing knowledge and necessary structures. This declaration of intent defines agreements which apply to and regulate the relationship between organisational units. It establishes the right to, but does not require, involvement in the project e-infrastructures Austria. Each partner is allowed to leave the project at any time without explanation. The other activities of the individual organisational units and/or existing cooperations remain untouched by this letter of intent.

GOAL OF THIS DECLARATION

The aim is to maintain the agreed upon standards for cooperation in the establishment of digital archives and research support services.

DECLARATION OF INTENT

The organisational units agree, within the framework of the project e-Infrastructures Austria and after the project's end, to work together and in equal standing toward the coordinated establishment of a repository landscape and the construction of research support services. In particular, the creation of an institutional contact point for questions regarding e-infrastructures should be sought after.

Date, Signature

APPENDIX D - SURVEY (EXECUTIVE SUMMARY)



Introduction

This report provides an overview of the Austria-wide survey for research data, which was carried out within the framework of the project e-Infrastructures Austria³ at the beginning of 2015. This survey was directed at the scientific and artistic-scientific personnel of all 21 public universities and three extramural research institutions in Austria.

The participants were asked about the following topics:

- Data types and formats
- Data archiving, backup and loss
- Ethical and legal aspects
- Accessibility and subsequent use
- Infrastructure and services

This first inquiry conducted at a national level in this context facilitated the collection of methods for the practical handling of research data in Austria, and is therefore the basis: (1) for an on-going effort to optimize the infrastructure, (2) for an adaptation of the services provided, as well as (3) for a reorientation of the identification method for resources in this strategic area, which correspond to the expressed needs of people in the research process.

Background

A solid research data management system is the foundation of cooperative, open research and, thus, of its reproducibility and verifiability. Both, visibility as well as the reputation of the Austrian research landscape, also play an important role. This topic is relevant and up-to-date for researchers, funding bodies and senior posts of scientific institutions, which is currently demonstrated by the *Pilot for Research Data* of the European Commission⁴.

Methodology

The survey is based on institutional, discipline-specific surveys that have already been performed at universities and research institutions in other countries. Emphasis was placed on the creation of a specially developed questionnaire which took into consideration the different cultures in science and art. This was created in German and English and was programmed by means of the open source-software, *LimeSurvey*. The implementation period was January 19 to March 31, 2015. The 3026 completed questionnaires (equivalent to an average response rate of 9 %) were statistically evaluated using the open source statistical software R and the open source spreadsheet OpenOffice.

Key Findings

The results of the study confirm the current expectations with respect to the handling of research data and settle them statistically. For each thematic area, both cross-curricular commonalities as well as discipline-specific features were determined where relevant.

³ Projekt e-Infrastructures Austria, Website. Online unter: <http://e-infrastructures.at/startseite> (Zugriff: 30.09.2015).

⁴ European Commission: HORIZON 2020, Open Science (Open Access). Online unter: <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/open-science-open-access> (Zugriff: 30.09.2015).

Data types and formats

- From the majority of researchers, research data are generated in the form of unstructured text files, graphics and tables. One quarter of the participants use structured text, one quarter videos, databases and source code, and a fifth use audio and software. While in the technical disciplines – as expected – source code and configuration data are frequently generated, whereas the relatively frequent production of databases in the humanities and medicine is particularly striking.
- The majority of the researchers produced more than three quarters of their research data volume in digital form; whereupon analog data is often used only by slightly more than every twentieth participant (especially in the humanities).

Data archiving, backup and loss

- The majority of respondents use multiple storage options, where a clear preference was observed for the use of business and private computers as well as external hard drives and USB drives.
- Two-thirds of researchers require memory in the order of up to 100 GB per year. A higher memory requirement can be observed for both the medical and the artistic universities.
- More than two thirds of researchers indicate that they describe their research data individually and inconsistently, and more than nine out of ten of these indicate they are responsible for the archiving of research data themselves.
- More than one-third already had experiences with data loss.

Ethical and legal aspects

- While one-third of researchers claim to have never or rarely been confronted with legal ambiguities in foreign data usage, one fifth experienced legal uncertainties at least sometimes.
- When switching institutions, research data tends to remain at the entity concerned; from about half the researchers, this data was also transferred to the new institution.
- Sensitive data is used by every seventh researcher. Playing a major role here is medicine, which shows that four out of ten researchers often use such data.

Accessibility and re-use

- The use of external data is considered by many researchers to be a key aspect of their research, while a quarter of researchers use no external data.
- Access to self-generated research data by third parties is usually allowed by researchers to limited degree. While slightly more than half of the respondents allow access only on request, only one in ten provides their research data as open data for the public; the same number of researchers deny access altogether.
- Access to research data is made possible by the majority of researchers either by physical disks or via e-mail. More than two thirds of the researchers use cloud or website applications for this; data archives/repositories are used by every seventh researcher.
- Approximately one third of respondents allow the re-use of their own research data; this is occurring more often in geography, biology and chemistry, while this is occurring relatively less frequently in medicine, social sciences and humanities.
- User agreements are being entered into by more than one third of the researchers.
- For more than half of the researchers, the most attractive incentives for sharing their data were increased visibility and impact, new cooperation opportunities, recognition in professional circles as well as their consideration being referred to as scientific output.
- Alternatively, the impediments for such were mainly the increased time and costs, a possible misuse of data, legal uncertainties, potential data corruption, unwanted commercialization and increasing competitive pressure. Legal restrictions in particular were main obstacles in medicine, the social and behavioral sciences and the engineering sciences.

Infrastructure and Services

- With respect to the preferred data archive, the researchers show no clear preference. Mentioned quite often in this context are the international, specialized data archive, the institutional repository, the international multidisciplinary data archive and the nationwide specialized repository.
- The majority of researchers desire technical infrastructure and project-specific support for research data management. In addition, more than one-third show interest in legal advice, a general help desk, as well as training programs.
- More than half of the researchers expect the provision of additional qualified staff as well as the adoption of guidelines or policies for dealing with research data. One fifth desire that research data management be accepted as part of the educational curriculum and that it becomes anchored as a service requirement.

Recommendations

Based on the present survey results, the implementation of the following measures for the handling of research data in Austria is strongly recommended:

- Creation of a comprehensive, technological infrastructure in Austria, including any disciplinary needs
- Adoption of institutional policies
- Attainment of information professionals
- Implementation of supporting services for researchers
- Implementation of appropriate incentive systems
- Encouragement of international and interdisciplinary cooperation

These recommendations above aim to initiate highly efficient infrastructures for the proper handling of research data in the Austrian scientific landscape. In its concrete implementation as well as development of these infrastructures, not only the rapid changes in this area must be considered in an international context, but international cooperation must also be sought in order to develop synergies. The establishment of the e-infrastructure for research data has several advantages, including increases in the visibility and reputation of individual, participating Austrian research institutions, which is resulting in Austrian research benefitting as a whole.

Full report:

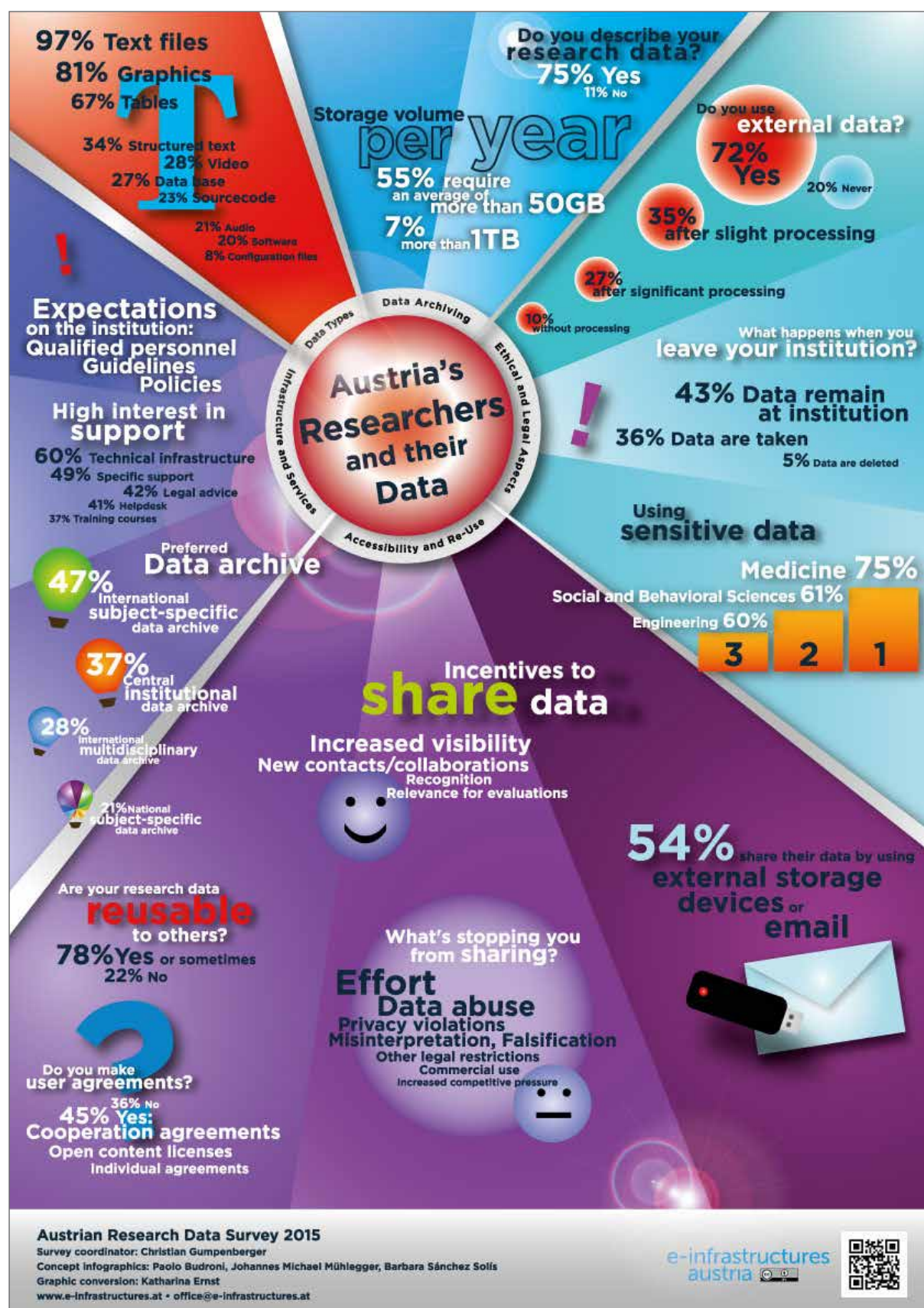
PI: phaidra.univie.ac.at/o:407513

DOI: [10.5281/zenodo.32043](https://doi.org/10.5281/zenodo.32043)

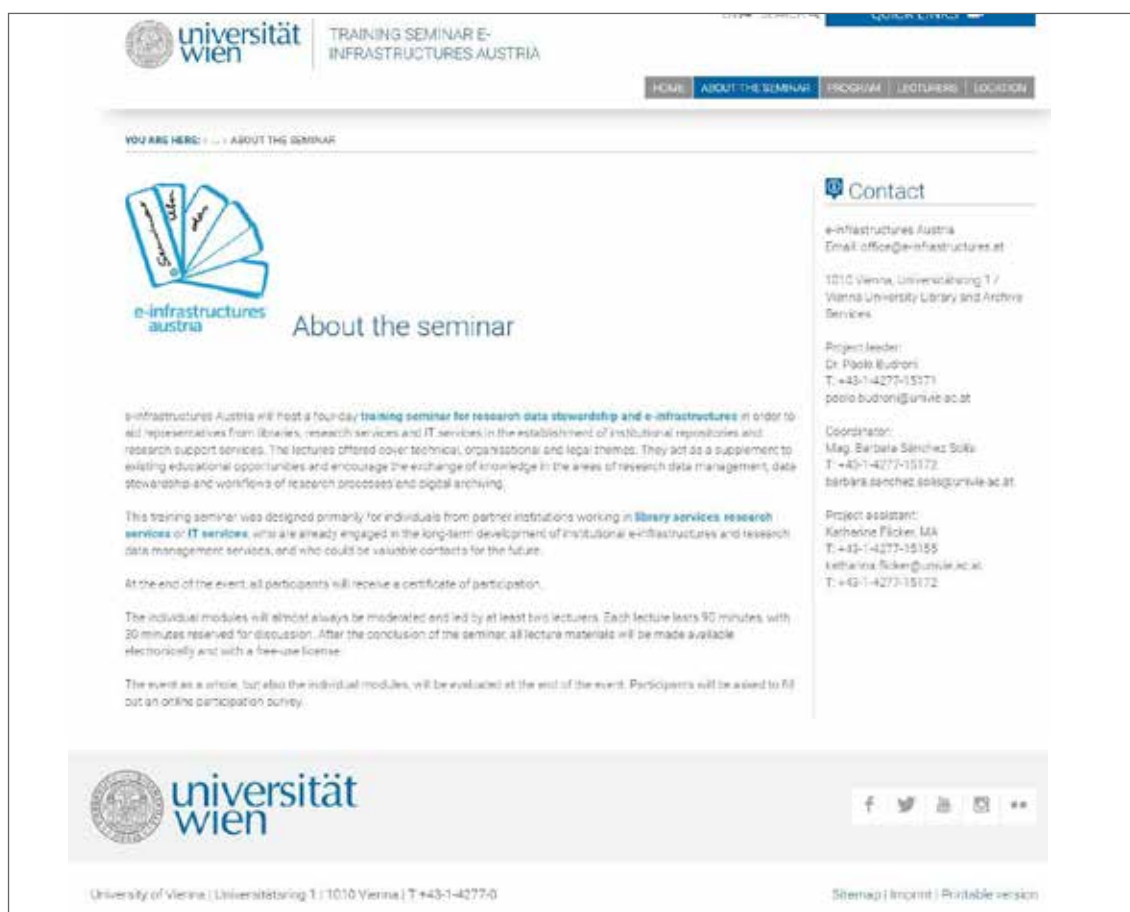



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APPENDIX E - POSTER AUSTRIAN RESEARCH DATA SURVEY



APPENDIX F - TRAINING SEMINAR E-INFRASTRUCTURES AND RESEARCH DATA STEWARDSHIP (WEBSITE)





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Monday, 6. June 2016

ab 11:30		Get-together
12:30-12:45	P. Budroni	Welcome address und Importance of e-infrastructures
12:45-15:00	L. M. Breuer, C. Schubert, B. Wloka	Presentation of Two 2 Use Cases in the Fields of Digital Humanities und Climate Research
15:00-15:30	Break	
15:30-17:00	R. Ganguly, W. Kraus	Digital Workflow Models, Preservation and Deletability

Tuesday, 7. June 2016

09:00-10:30	A. Ficus, F. Guma, R. Seteln	Role Models (including IT), Competencies, Areas of Responsibility
10:30-11:00		Break
11:00-12:30	M. Birkner, S. Blumesberger	Requirements Management/Use Cases
12:30-13:30		Lunch break
13:30-15:00	A. Rauber, C. Schubert	Life Cycle Management, The Digital Object, Content Models
15:00-15:30		Break
15:30-17:00	P. Budroni, B. Sanchez Solis	Establishing an Institutional Service Centre for Research Support

Wednesday, 8. June 2016

09:00-11:00	T. Miksa, B. Sánchez Solis, C. Schrauf	Data Management Plans (DMP)
11:00-11:30		Break
11:30-13:00	S. Amini	Legal & Ethical Issues I
13:00-14:00		Lunch Break
14:00-15:00	S. Amini	Legal & Ethical Issues II
15:00-15:30		Break
15:30-17:00	H. Eberle, G. Novotny	Operations, Service, Support

Thursday, 9. June 2016

09:00-10:30	P. Budroni, R. Ganguly	Finance Models, Cost Calculations and Resource Requirements
10:30-11:00		Break
11:00-12:30	S. Blumesberger, S. Szepe	Metadata in the Areas of Repositories and Research Data
12:30-13:30		Lunch Break
13:30-15:00	S. Amini	Terms of Use for Repositories
15:00-15:30		Break
15:30-17:00	P. Budroni (Moderator)	Closing discussion

Program

GALLERY

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This event was organized by e-infrastructures Austria



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Amini, Seyavash, Legal consultant	Wednesday 8. June, Thursday 9. June
Birkner, Michael, Vienna Chamber of Labour	Thursday 9. June
Blumesberger, Susanne, Vienna University	Tuesday 7. June, Thursday 9. June
Breuer, Ludwig Maximilian, Vienna University	Monday 6. June
Budroni, Paolo, Vienna University	Monday 6. June, Tuesday 7. June, Thursday 9. June
Eberle, Harald, Vorarlberger Libraries	Wednesday 8. June
Ferus, Andreas, Academy of Fine Arts Vienna	Tuesday 7. June
Ganguly, Raman, Vienna University	Monday 6. June, Thursday 9. June
Guma, Florin, University of Salzburg	Tuesday 7. June
Kraus, Wolfgang, Vienna University	Tuesday 7. June
Miksz, Tomasz, Vienna University of Technology (TU Wien)	Wednesday 8. June
Novotny, Gertraud, Vienna University of Economics and Business	Wednesday 8. June
Rauber, Andreas, Vienna University of Technology (TU Wien)	Tuesday 7. June
Sánchez Solís, Barbara, Vienna University	Tuesday 7. June, Wednesday 8. June
Schrauf, Cornelia, Schrauf, Cornelia, WWT Vienna Science & Techn. Fund	Wednesday 8. June
Schubert, Chris, CCCA Climate Change Centre Austria – Data Centre	Monday 6. June, Tuesday 7. June
Sefelin, Reinhard, Vienna University of Economics and Business	Tuesday 7. June
Szepe, Stefan, MDW University of Music and Performing Arts Vienna	Thursday 9. June
Wloka, Bartholomäus, Vienna University	Monday 6. June



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Vienna University, Main building, Elise Richter Hall



The Elise Richter hall is located in the **main building of the Vienna University at Universitätsring 1, A-1010 Vienna**. When entering the building from the main entrance, the Elise Richter Hall will be on the left side of the building, one story above the entrance, and can be reached via the stairwell.

Elise Richter was an Austrian novelist and university professor who, in 1905 was the first woman at the Vienna University to achieve habilitation, the highest of academic qualifications. She taught at the university until 1936, when she was forced to leave by the Nazis. Because she was Jewish, she was deported to the concentration camp Theresienstadt in 1943 and was murdered there.



APPENDIX G - TEMPLATE FOR DATA MANAGEMENT PLANS (DMP)



Citation suggestion:

Template for Data Management Plans (DMP) at Austrian Research Institutions. V 3.0 (2016). Vienna: e-Infrastructures Austria. Online: <http://phaidra.univie.ac.at/o:459216>

Information regarding the use of the DMP template:

A DMP can vary in length (between one and several DIN A4 pages) and detail depending on the project, type of data and project-stage. It also depends whether all questions asked are relevant to you. In the end, an individual DMP will form out of the text fields outlined in red. The questions in the blue checklist box should be helpful in answering the individual sections. Please note that the DMP is a living document and must be updated and modified at regular intervals.



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1 Administrative Data

The purpose of the administrative data section is to provide basic information on the research project, in order to identify the project, the people responsible for it and a means of contacting them. This section does NOT repeat any information about the project itself, e.g. project description, which can be found in other documents like the project proposal, description of work, etc.

Required information:

- *Project sponsor or grant:*
- *Project sponsorship number/grant reference number:*
- *Project title (including acronym, if applicable):*
- *PI (principal investigator)/researcher(s) (including name, telephone number, and email address):*
- *ID of PI (principal investigator)/researcher(s) (ORCID, for example):*
- *Contact person for DMP, if other than PI (including name, telephone number, and email address):*
- *Date of the first DMP version:*
- *Date of the last update:*
- *Short project and/or data summary*:*
- *Relevant policies (please include link):*

Note further details here...

Guidance to the question:

- ✓ **You may include a short description for the following: a) type of research project, b) research goals, c) purpose of data collection or generation. (No detailed project descriptions please!)*
- ✓ *Are there policies that must be followed? Does your research group have data management guidelines? Does your institution have its own data protection and security policy? Does your institution have its own research data management policy? Does your project sponsor or grant have an RDM policy?*
- ✓ *Does the project sponsor or grant have guidelines as to when and how often a new version of a data management plan must be delivered?*

2 Data Collection

The purpose of the data collection section is to identify datasets that are used and created during the project. This description is not limited to data which must later be archived and preserved – this is specified later in the selection and preservation section. By identifying data used during the course of the project, researchers can better estimate the requirements for software and hardware infrastructure needed to run the project.

a) What type and amount of data will you generate?

Write your answer here...

Guidance to the question:

- ✓ Which formats do you use to produce your data?
Examples: Text documents (i.e. DOC, ODF, PDF, TXT etc.), Structured Text (i.e. HTML, JSON, TEX, XML etc.), Tables (i.e. CSV, ODS, XLS, SAS, Stata, SPSS etc.), Databases (i.e. MS Access, MySql, Oracle etc.), Images (i.e. JPEG, SVG, PNG, GIF, TIFF etc.), Audio (i.e. MP3, WAV, AIFF, OGG etc.), Video/Film (i.e. MPEG, AVI, WMV, MP4 etc.), Source code (i.e. CSS, JavaScript, Java etc.), Configuration data (i.e. INI, CONF etc.), Software applications
- ✓ Approximately how much data do you currently or expect to collect (provide amount in gigabytes, megabytes, terabytes or petabytes)?
- ✓ How big are the largest individual files?

b) How will data be collected or generated?

Write your answer here...

Guidance to the question:

- ✓ Do you use special software?
- ✓ Do you use special hardware?
- ✓ Reuse of data: Is the choice of technology, format, licences and metadata (descriptive, contextual, provenance, technical or other metadata) suitable to ensure subsequent use?

3 Documentation

The purpose of the documentation section is to describe practices during the research process that facilitate correct interpretation and provenance collection of data created during research, including processes, contextual framework and contextual interpretation, data structures, relationships to other entities, as well as which changes and procedures are necessary to prepare and analyse data. Good documentation should address the questions Why, Who, What, Where, When and How.

a) How will data be documented?

Write your answer here...

Guidance to the question:

- ✓ In which format do you document your data (e.g. laboratory notebooks, field notes, audio files, and so on)?
- ✓ Do you document your data in a specific format?
- ✓ Will documentation be archived long-term?

4 Metadata

The more extensive your data are described when you deposit them in a long time archiving system, the easier it will be to find them and reuse them. Standardized vocabularies and classifications (such as ÖFOS, Eurovoc, ACM or Getty) help make data identifiable, visible and reusable.

a) What metadata will accompany the data?

Write your answer here...

Guidance to the question:

- ✓ How is your metadata structured?
- ✓ Do you have the necessary information to archive data? (i.e. title, description, author and role, license)
- ✓ Do you use metadata standards? If so, which?
- ✓ Do you use metadata generated by other researchers? Do you have the rights to use it?
- ✓ Who is responsible for the collection and inspection of metadata?

5 Ethics and Legal Compliance

The purpose of the ethics and legal compliance section is to identify any issues affecting the way sensitive data are processed, stored and published.

a) How will you manage any ethical issues?

Write your answer here...

Guidance to the question:

- ✓ Are all legal issues concerning data protection and ethics accounted for (for example, consent forms, official notices and licenses, handling of personal information, anonymization or pseudonymization, publication, subsequent use in future projects, etc.)?
See also „Guidance - How to complete your ethics self-assessment“ from the EC:
http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf
- ✓ Are there any limitations regarding image size or resolution for legal reasons?
- ✓ Should access be limited to a particular target group?
- ✓ Do you have written permission to publish data? (i.e. audio-visual materials from those depicted, or soundtracks)

b) How will you manage copyright and Intellectual Property Rights (IPR) issues?

Write your answer here...

Guidance to the question:

- ✓ Is the legal situation concerning copyright, exploitation and individual rights clarified?
- ✓ Please note: Storing data in repositories also requires adherence to the terms of use.
- ✓ Do those responsible have the necessary permissions to store project data in a repository?
- ✓ May your digital objects be displayed on the internet? May the metadata be displayed on the internet?
- ✓ Are there any embargo periods?
- ✓ Terms of licenses: What licenses are available (e.g. Creative Commons license, General Public license, GNU licenses and so on)?

For information regarding CC licenses see: <https://creativecommons.org/>

6 Storage and Backup

The purpose of the storage and backup section is to describe how data will be secured during the course of a project. It focuses on actions which ensure that no data is lost and that only authorized users have access to it. Please note that the section selection and preservation describes how data is secured in the long-term, in particular, after the end of a project. This section focuses on how data is managed during the project.

a) How will data be stored and backed up during research?

Write your answer here...

Guidance to the question:

- ✓ Do you have sufficient storage at your disposal?
- ✓ Will you need to include charges for additional services (technical advice, implementation of a website for the project, implementation of a CMS, etc.)?
- ✓ How will data be backed up?
- ✓ Who will be responsible for backup and recovery?
- ✓ How will data be recovered in the event of an incident? Do you have emergency plans?

b) How will you manage access and security?

Write your answer here...

Guidance to the question:

- ✓ Are there risks associated with loss of or illegal access to personal information and other secure research data?
- ✓ Which access restrictions are in place in your data system?
- ✓ How will you ensure that collaborators can access your data securely?
- ✓ If creating or collecting data in the field, how will you ensure its safe transfer into your main secured systems?
- ✓ Is password protection provided?
- ✓ Who is responsible for security and data access? If possible, please include contact information.
- ✓ Can additional costs due to breaches of contract (sum specified in contract upon breach of trust), damages or reparations be expected?
- ✓ Will the project make use of in-house or external IT services? In any instance where the use of a central system is available, it is strongly recommended that they be used (for example, LimeSurvey for questionnaires, XYZ for web-hosting etc.).
- ✓ Will all data be archived long-term?
- ✓ Once the project has ended, what will happen to data that will not be archived long-term?

7 Selection and Preservation

The purpose of the selection and preservation section is to provide information on data that must be secured in long-term. These will likely be a subset of data specified in the section data collection. Also in this section, researchers should delineate how these actions will be funded and estimate costs. They should receive estimations from the repositories in which they decide to deposit their data.

a) Which data should be retained, shared and/or preserved?

Write your answer here...

Guidance to the question:

- ✓ Describe what data should be stored long-term.
- ✓ In what formats is this data available?
- ✓ How long should data be stored in the repository?
- ✓ Do you need a persistent identifier? If so, you need a specific one (e.g., DOI, Handle, URN, and so on)?
Definition of persistent identifier see:
<http://handbook.dpconline.org/technical-solutions-and-tools/persistent-identifier>
- ✓ Are there any plans to delete the data after a certain time? Is deleteability in your repository under your control?

b) What is the long-term preservation plan for the dataset?

Write your answer here...

Guidance to the question:

- ✓ In which repository or archive will data be held?
- ✓ Please enter the name of the repository and the operator (including address).
- ✓ What are the expected storage costs, if any, of your selected data repository or archive?
- ✓ What are the yearly or total costs of the project? Please take into account the costs and responsibilities after the end of the project.
- ✓ Will the preparation of data for archiving produce any costs (e.g. legal clarifications, technical support for conversions)?
- ✓ Do costs arise for re-use (e.g. visualization) of data?

8 Data Sharing

The purpose of the data sharing section is to describe which, how and in what form data will be shared with other stakeholders or systems (i.e. Europeana). The issues described in the ethics and legal compliance section have impact on the decisions described in this section.

a) How will you share data?

Write your answer here...

Guidance to the question:

- ✓ How should data be found online?
- ✓ Is it necessary to grant restricted/differentiated access rights?
- ✓ Do you want or have to publish your data with Open Access?
- ✓ Which operating licenses (e.g. Creative Commons License, General Public License, GNU and so on) are planned?
- ✓ Must embargo periods be taken into account?
- ✓ Should others be able to cite your data? Do you require additional metadata in order to provide data to other repositories (Europeana, for example)? Are data machine-readable?

b) How will data be used after completion of the project?

Write your answer here...

Guidance to the question:

- ✓ How should data be re-used after project completion (e.g. visualized)?
The re-use of data includes: re-use from particular target groups or machines, the

provision of data to other repositories, the linking of data and the visualization of data in different contexts.

- ✓ For which user groups could your data be interesting?
- ✓ Is there an agreement between the project partners (e.g. in relation to target group-specific representations)?
- ✓ Are you planning follow-up projects?

9 Responsibilities and Resources

The purpose of the responsibilities and resources section is to identify those responsible for implementing the data management plan. Furthermore, it summarizes additional resources required to deliver this plan, e.g. resources needed to ingest data into a selected repository (personnel, infrastructure, money, time).

a) Who will be responsible for data management in your research project?

Write your answer here...

Guidance to the question:

- ✓ Who is responsible for the implementation of defined points in your data management plan?
- ✓ Who will verify and, if necessary, revise this plan?
- ✓ Are there any conditions from the funding agencies to be taken into account?

b) What resources will you require for data management?

Write your answer here...

Guidance to the question:

- ✓ Do you require additional resources (software, legal advice, technical support, etc.) in order to manage the data in your research project from collection/generation to controlled deletion or preparation for long-term archiving?
- ✓ Is additional consulting or education needed for project members (for example, relating to data protection, data security and handling of research data, storage and IT systems, data ownership, etc.)?
- ✓ Please specify your requirements (please include a calculation of personnel costs, if possible).

Authors/Participants

- Version 3.0, July 2016. Version 3.0, Juli 2016. Edited by Susanne Blumesberger, Paolo Budroni, Veronika Gründhammer, Tomasz Miksa, Ralf Pausz, José Luis Preza, Barbara Sánchez Solís

Download DMP Templates

- Version 3.0 German: <http://phaidra.univie.ac.at/o:459215>
- Version 3.0 English: <http://phaidra.univie.ac.at/o:459216>

IMPRESSUM

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APPENDIX H - MODEL POLICY FOR RESEARCH DATA MANAGEMENT

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MUSTER FÜR FORSCHUNGSDATENMANAGEMENT-POLICY an österreichischen Forschungseinrichtungen

Erarbeitet im Rahmen des Projekts
[e-Infrastructures Austria](#)
von der ExpertInnengruppe
„Strategie für Umgang mit Forschungsdaten
in Österreich“

Version 1.2
Juli 2016

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Einleitung

e-Infrastructures Austria¹ führte Anfang 2015 erstmals eine umfassende Untersuchung zum Umgang mit Forschungsdaten in Österreich durch. Über 3.000 WissenschaftlerInnen von 20 öffentlichen Universitäten sowie drei außeruniversitären Forschungseinrichtungen in Österreich beteiligten sich an der Umfrage². In Bezug auf gewünschte Maßnahmen sprach sich über die Hälfte der Befragten explizit für Leitlinien und Policies aus. Im Rahmen des Horizon 2020 Projekts LEARN³ wurden im Zeitraum von Juli 2015 bis Dezember 2016 an der Universitätsbibliothek Wien unterschiedliche europäische Forschungsdatenmanagement-Policies sowohl formell als auch inhaltlich analysiert und ausgewertet.

Um Rahmenbedingungen für ein kompetentes Forschungsdatenmanagement zu erarbeiten, wurde zu Beginn 2016 die *ExpertInnengruppe - Strategie für Umgang mit Forschungsdaten in Österreich* eingerichtet (TeilnehmerInnen siehe Folgeseite), die eine Unterarbeitsgruppe dazu befähigte, ein Muster für eine Forschungsdatenmanagement-Policy an österreichischen Forschungseinrichtungen zu erstellen. Das vorliegende Dokument enthält exemplarische Vorlagen auf Deutsch und auf Englisch, die von jeder Forschungseinrichtung lokalisiert und an die Philosophie der eigenen Institution angepasst werden können. Es wurde in der Sitzung der *ExpertInnengruppe* vom 2. Juni 2016 verabschiedet.

¹ HRSM-Projekt, 2014-2016, Projektträger BMWFW, Projektmanagement: Universitätsbibliothek der Universität Wien, 26 Projektpartner; Website: <https://www.e-infrastructures.at/>

² Forschende und ihre Daten. Ergebnisse einer österreichweiten Befragung – Report 2015. Version 1.2. DOI: 10.5281/zenodo.32043

³ This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 654139; Zielsetzung: Implementierung der LERU-Roadmap für Forschungsdatenmanagement und Erstellen einer Modell-Policy für Forschungsdatenmanagement; Website: <http://learn-rdm.eu/>

ExpertInnengruppe

Mitglieder der ExpertInnengruppe

22 Mitglieder aus unterschiedlichen Stakeholder-Gruppen:

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Gesamtkoordination e-Infrastructures Austria, Koordination ExpertInnengruppe
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⁴ The Know-Center is funded within the Austrian COMET program – Competence Centers for Excellent Technologies – under the auspices of the Austrian Federal Ministry of Transport, Innovation and Technology, the Austrian Federal Ministry of Ministry of Science, Research and Economy, and the State of Styria. COMET is managed by the Austrian Research Promotion Agency FFG.

Muster für Forschungsdatenmanagement-Policy an österreichischen Forschungseinrichtungen [Deutsch]

1 Präambel

Hier ist zu definieren, weshalb es eine Policy geben soll und wie der Zusammenhang zum Forschungsverständnis der Einrichtung ist. Dieser Teil ist von einer jeden Institution zu lokalisieren und an die jeweilige Philosophie der Einrichtung anzupassen.

Die Forschungseinrichtung/Universität [NAME] erkennt die grundlegende Bedeutung der Verwaltung von Forschungsdaten und Aufzeichnungen für eine qualitativ hochwertige Forschung und für wissenschaftliche Integrität an und ist bestrebt, diesbezüglich den höchsten Standard zu fördern. Die Universität erkennt an, dass korrekte und leicht auffindbare Forschungsdaten Grundlage und ein wesentlicher Bestandteil eines jeden Forschungsprojekts sind. Sie sind zur Überprüfung und Verteidigung des Forschungsprozesses und des Forschungsergebnisses notwendig. Für Forschende und den wissenschaftlichen Nachwuchs sind sie für die Dauer ihrer Forschung und darüber hinaus wertvoll. Außerdem haben Forschungsdaten einen langfristigen Wert für die Lehre und für eine breitere Nutzung in der Gesellschaft.

2 Geltungsbereich

Hier ist der räumliche und zeitliche Geltungsbereich der Policy zu regeln. Auch ist hier das Verhältnis der Policy zu anderen Vorschriften, insbesondere zu universitären und außeruniversitären Richtlinien und Satzungen zu bestimmen. Ferner ist das Verhältnis zu gesetzlichen und vertraglichen Vorschriften klarzustellen.

Diese Policy für das Management von Forschungsdaten kommt für alle an der Universität/Forschungseinrichtung [NAME] tätigen Forschenden⁵ zur Geltung. Sie wurde [von der Leitung/von der Kommission XY] am [DATUM] genehmigt. Sofern die konkrete Forschung durch einen Dritten gefördert wird und der zugrunde liegende Fördervertrag besondere Bestimmungen hinsichtlich Eigentum, Zugang und Aufbewahrung der Forschungsdaten enthält, gehen die Bestimmungen des konkreten Vertrages den Regelungen dieser Policy vor.

3 Rechteinhaberschaft

Hier sind Regelungen zu treffen bezüglich der Frage, wer welche Rechte an welchen Forschungsdaten hat (Wem „gehören“ Forschungsdaten?). Dabei handelt es sich um eine elementare Frage. In Bezug auf rechtlich geschützte Forschungsdaten wird diese Frage durch den Gesetzgeber geregelt. Folgende Aspekte sind zu berücksichtigen: Nutzungsbedingungen, Fragen zur Lizenzvergabe und Nachnutzung von Daten, datenschutzrelevante Aspekte, Persönlichkeitsrechte, Verwertungsrechte, Urheberrechtsfragen im Bereich Forschungsdatenmanagement von Urheberrecht, Verwertungsrecht, Persönlichkeitsrecht. Dort, wo kein Gesetz auf ein bestimmtes Forschungsdatum Anwendung

⁵ **Forschende:** Unter Forschenden sind Mitglieder der Universität/Forschungseinrichtung einschließlich MitarbeiterInnen und DoktorandInnen zu verstehen. Ebenso sind in diesem Sinne diejenigen Personen als Forschende anzusehen, die nicht Mitglieder der Universität/Forschungseinrichtung sind, aber sich zu Forschungszwecken an der Universität/Forschungseinrichtung aufhalten oder die Einrichtungen der Universität/Forschungseinrichtung zur Forschung nutzen.

Muster für Forschungsdatenmanagement-Policy

findet, ist es Aufgabe dieser Policy, eine Regelung zu treffen. Bei dieser Regelung sind Verträge mit Fördergebern sowie vertraglich festgelegte Vereinbarungen zwischen den Forschenden und ihren arbeitgebenden Institutionen zu berücksichtigen.

Die Rechteinhaberschaft wird zwischen Forschenden und Dienstgebern durch den Arbeitsvertrag oder sonstige vertragliche Vereinbarungen geregelt.

4 Umgang mit Forschungsdaten

Hier sind Regelungen zu treffen bezüglich der Fragen, wozu und durch wen Forschungsdaten zu verwenden sind. Insbesondere ist festzulegen, wie Forschungsdaten zu verarbeiten, zu dokumentieren, zu nutzen, zu sichern, zu archivieren, zu veröffentlichen und nachzunutzen sind.

Forschungsdaten sollten in einem geeigneten Repositorium [eventuell NAME/N] oder im [NAME des institutionellen Repositoriums] aufbewahrt und angeboten werden.

Forschungsdaten sind korrekt, vollständig, unverfälscht und zuverlässig zu halten. Weiters müssen Identifizierbarkeit, Auffindbarkeit, Interoperabilität und überall dort, wo es möglich ist, Verfügbarkeit und Nachnutzbarkeit gewährleistet sein.

Sofern keine Rechte Dritter, gesetzliche Verpflichtungen oder Eigentumsregelungen dem entgegenstehen, sind Forschungsdaten mit einer freien Lizenz zu versehen (z.B. Creative Commons⁶) und offen verfügbar zu machen.

Damit ist die Einhaltung von Zitiernormen ebenso gewährleistet wie die Einhaltung von Vorgaben hinsichtlich Veröffentlichungen bzw. zukünftigen Forschungsvorhaben. Die Herkunft der wiederverwendeten Daten ist dadurch eindeutig nachvollziehbar und die entsprechende Quelle wird honoriert.

Forschungsdaten und Aufzeichnungen sind so lange aufzubewahren und zugänglich zu halten, wie es nach einschlägigen gesetzlichen oder vertraglichen Vorschriften, insbesondere nach dem Patentrecht oder nach einer Vorgabe des Drittmittelgebers erforderlich ist. Aufbewahrt werden sollten auch Forschungsdaten, die künftig von historischem Interesse sein werden sowie Forschungsdaten, die Aufzeichnungen der [Forschungseinrichtung/Hochschule] darstellen.

Die Mindestaufbewahrungsfrist für Forschungsdaten und Aufzeichnungen beträgt zehn (10) Jahre nach der Veröffentlichung der Daten oder der Veröffentlichung der betreffenden Arbeit bzw. nach Projektabschluss.

Sofern Forschungsdaten und Aufzeichnungen gelöscht oder vernichtet werden, weil entweder die vereinbarte Aufbewahrungsfrist abgelaufen oder dies aus rechtlichen oder ethischen Gründen erforderlich ist, sollte dies in Übereinstimmung mit allen rechtlichen und ethischen Gesichtspunkten geschehen. Die Nachvollziehbarkeit der Handlung muss gewährleistet und dokumentiert sein. Dabei müssen außerdem die Interessen von ggfs. Drittmittelgebern und sonstigen Beteiligten, insbesondere von MitarbeiterInnen und TeilnehmerInnen, sowie Aspekte der Vertraulichkeit und Sicherheit berücksichtigt werden.

5 Verantwortlichkeiten, Rechte und Pflichten

Hier sind Vorschriften zu formulieren bezüglich der Verantwortlichkeiten, Rechte und Pflichten folgender Personen bzw. Institutionen hinsichtlich von Forschungsdaten: a) Forschende, Forschungsdatenproduzenten; b) Förderer; c) Institution; d) Forschungsunterstützende Dienstleister (beispielsweise Bibliotheken, IT-Dienstleister, Forschungsservices, weitere).

⁶ Konkrete Empfehlungen für die Lizenzierung sind im „Annex – Kommentare zur Muster-Policy“ angeführt.

Muster für Forschungsdatenmanagement-Policy

Die Verantwortung für das Forschungsdatenmanagement während eines Forschungsprojekts und darüber hinaus liegt bei der Institution und den Forschenden.

1. Forschende sind verantwortlich für

- a) Management von Forschungsdaten und Datensätzen in Übereinstimmung mit den Prinzipien und Anforderungen (*wie in Punkt 4 dargelegt*);
- b) Sammlung, Dokumentation, Speicherung, Verwendung, Wiederverwendung, Zugriff und Aufbewahrung oder Vernichtung der Forschungsdaten sowie Aufzeichnungen der mit ihrer Forschung verbundenen Forschungsdaten. Dies umfasst gegebenenfalls die Definition von Protokollen und Verantwortlichkeiten im Rahmen eines gemeinsamen Forschungsprojekts. Derartige Informationen sollten in einen Datenmanagementplan⁷ eingebaut werden;
- c) Planung der laufenden Verwendung ihrer Daten und der Verwendung nach Abschluss der Forschung. Dazu gehört die Planung der Verwendung der Daten im Falle des Ausscheidens aus einem Projekt sowie die Klärung der Datenspeicherung und Archivierung im Falle ihres Ausscheidens aus der Forschungsinstitution/Hochschule;
- d) Sicherstellung und Erfüllung aller organisatorischen und regulatorischen, institutionellen und sonstigen vertraglichen und gesetzlichen Anforderungen in Bezug auf ihre Forschungsdaten, sowie für die Verwaltung der Aufzeichnungen ihrer Forschung.

Alle neuen Forschungsvorhaben müssen ab dem Tag der Bewilligung an der Institution [Name der zentralen Stelle] registriert werden. Datenmanagementpläne oder Protokolle, die explizit die Datenerfassung, -verwaltung, -integrität, -vertraulichkeit, -aufbewahrung sowie den Austausch und die Veröffentlichung der Daten regeln, sollten zur Anwendung kommen.

2. Die Institution ist verantwortlich für

- a) Bereitstellung von erforderlichen Mitteln und Ressourcen zum Betrieb und zum Erhalt von Dienstleistungen, Einrichtungen sowie für die Ausbildung der MitarbeiterInnen;
- b) Einhaltung bewährter wissenschaftlicher Praktiken. Diese erfolgt durch Überwachung, Ausbildung und Unterstützung unter Berücksichtigung von Richtlinien, Drittmittelverträgen zur Forschungsförderung sowie universitätsinternen Satzungen, Verhaltenskodizes und aus sonstigen relevanten Vorschriften;
- c) Schulungen, Unterstützung, Beratung und gegebenenfalls Richtlinien, Vorlagen und Pläne für das Management von Forschungsdaten; Bereitstellung von Templates für Datenmanagementpläne;
- d) Entwicklung und Bereitstellung von Mechanismen und Dienstleistungen für Aufbewahrung, Sicherung, Registrierung und Hinterlegung von Forschungsdaten zur Unterstützung des aktuellen und zukünftigen Zugangs zu Forschungsdaten während und nach Abschluss von Forschungsprojekten;
- e) Bereitstellung des Zugangs zu Diensten und Einrichtungen für Lagerung, Sicherung, Aufbewahrung von Forschungsdaten und Aufzeichnungen, die es den Forschenden ermöglichen, ihre nach dieser Policy sowie aus Verträgen mit Drittmittelgebern und aus sonstigen Rechtsquellen bestehenden Rechte und Pflichten wahrzunehmen.

Diese Policy wird zweijährlich von der Leitung/von der Kommission der Universität/Forschungseinrichtung [NAME] auf Gültigkeit überprüft.

⁷ Ein **Datenmanagementplan** (DMP) ist ein strukturierter Leitfaden (Dokument oder Online-Tool), der den gesamten Lebenszyklus von Daten abdeckt und bei Bedarf aktualisiert werden kann. Datenmanagementpläne müssen gewährleisten, dass Forschungsdaten auffindbar, zugänglich, authentisch, zitierbar, die rechtlichen Verhältnisse geklärt sind und zwecks Weiterverwendung gegebenenfalls unter geeigneten Sicherheitsmaßnahmen zur Verfügung stehen.

Model policy for research data management

Model policy for research data management (RDM) at Austrian research institutions [English]

1 Preamble

This section defines why there should be a policy and how to contextualize it within the institution. This part has to be localized by each institution and aligned with the prevailing philosophy and mission of the institution.

The [name of university/research institution] recognizes the fundamental importance of research data and records management in maintaining quality research and scientific integrity, and is committed to pursuing the highest standards. The [name of university/research institution] acknowledges that correct and easily retrievable research data are the foundation of and integral to every research project. They are necessary for the verification and defense of the research process and results. RDM policies are of infinite value for current and future researchers, even after a research project is completed. Research data have a long-term value for research, academia and for widespread use in society.

2 Jurisdiction

Here, the scope of the policy must be defined according to space and time. The weight of the policy in relation to university and non-university guidelines and statutes must also be examined. Furthermore, compliance with legal and contractual provisions must be maintained.

This policy for the management of research data applies to all researchers active at the [name of university/research institution].⁸ The policy was approved by the [dean/commission] on [date]. If concrete research is funded by a third party and an agreement is made which specifically outlines rights concerning ownership, access and storage of research data, such an agreement takes precedent over this policy.

3 Ownership Rights

In this section, rights must be defined according to the question, who owns research data? And who holds the rights to which kind of data? This is a fundamental question. With regard to research data protected by law, this question can be answered by lawmakers. The following aspects must be considered: Terms of use, questions of licensing and subsequent use of data, data protection aspects, privacy rights, usage rights and copyrights. In cases where no law fittingly applies to a specific piece of research data, this policy will take on the task of regulating ownership rights, etc. This policy must take into account all contracts made with funders, as well as contracts between researchers and their institutions, which take precedent.

Ownership rights are defined in the work contract between a researcher and his or her employer.

4 Handling research data

This section outlines policies which provide answers to the questions of who may use research data and for what purpose. It is important to define how research data are to be changed, documented, used, secured, archived, publicized and subsequently used.

⁸ **Researchers:** Researchers refers to all members of the [name of university/research institution] including employees and doctoral candidates. Persons not directly affiliated with the [name of university/research institution], but who, for purposes of research, make use of or are physically present at the [name of university/research institution], are also included in the term.

Model policy for research data management

Research data should be stored and made available for use in a suitable repository, such as [name of institutional repository, if applicable].

Research data must be stored in a correct, complete, unadulterated and reliable manner. Furthermore, they must be identifiable, traceable, interoperable, and whenever possible, available for subsequent use.

If no third party rights, legal requirements or property laws prohibit it, research data should receive a free licence for open use, such as Creative Commons.

In this way, adherence to citation norms and requirements regarding publication and future research is assured, sources of subsequently used data are explicitly traceable, and original sources can be acknowledged.

Research data and records are to be stored and made available according to patent law or the requirements of third-party funders, within the parameters of applicable legal or contractual requirements. Research data of future historical interest and [name of university/research institution] records should also be archived.

The minimum archive duration for research data and records is 10 years after original publication or publication of relevant work after project completion, for example.

In the event that research data and records are to be deleted or destroyed, either after expiration of the required archive duration or for legal or ethical reasons, such action should be determined and regulated only after considering all legal and ethical perspectives. The traceability of the action must be upheld and documented. At the same time, the interests of third-party funders and other stakeholders, employees and partner participants in particular, as well as the aspects of confidentiality and security, must be taken into serious consideration.

5 Responsibilities, Rights, Duties

Here, regulations concerning the responsibilities, rights and duties of the following persons and institutions should be formulated with regard to research data: a) researchers and research data producers; b) funders; c) institutions; d) research support services (for example, libraries, IT services, research support centers, etc.)

The responsibility for research data management during and after a research project lies with institutions and the researchers.

1. Researchers are responsible for
 - a) Management of research data and data sets in adherence with principles and requirements (see point 4);
 - b) Collection, documentation, archiving, use, subsequent use, access and storage or proper destruction of research data and research-related records. This also includes the definition of protocols and responsibilities within a joint research project. Such information should be included in a data management plan;⁹
 - c) Planning for the continued use of data even after project completion. This includes defining usage rights in the case of discontinued involvement in a project, as well as the clarification of data storage and archiving in the case of discontinued involvement at the [name of university/research institution];
 - d) Backup and compliance with all organisational and regulatory, institutional and other contractual and legal requirements, both with regard to research data, as well as the administration of research records.

All new research goals must be registered with the [name of university/research institution central body] by the date of their approval. Data management plans or protocols which explicitly regulate

⁹ A **data management plan** (DMP) is a structured guideline (document or online tool) which depicts the entire lifeline of data and can be updated if needed. Data management plans must assure that research data are traceable, available, authentic, citable, and that they adhere to clearly defined legal parameters and appropriate safety measures governing subsequent use.

Model policy for research data management

the collection, administration, integrity, confidentiality, storage, use and publication of data should be employed.

2. The [name of university/research institution] is responsible for
 - a) Providing appropriate means and resources for operations, the upkeep of services and infrastructures, and employee education;
 - b) Support of established scientific practices. This is possible through monitoring, education and support, while in compliance with regulations, third-party contracts for research grants, university statutes, codes of conduct, and other relevant guidelines;
 - c) Trainings, support, advice, as well as provision of templates for data management plans;
 - d) Developing and providing mechanisms and services for storage, safekeeping, registration and deposition of research data in support of current and future access to research data during and after the completion of research projects;
 - e) Providing access to services and infrastructures for the storage, safekeeping and archiving of research data and records, allowing researchers to exercise their rights and duties in accordance with this policy and any contracts with third-party funders or other legal entities.

This policy will be tested for validity by the director of the [name the university/research institution] every two years.

Annex – Kommentare zur Muster-Policy

Zum Umgang mit Forschungsdaten

Sofern keine Rechte Dritter, gesetzliche Verpflichtungen oder Eigentumsregelungen dem entgegenstehen, wird die Universität/Forschungseinrichtung Forschungsdaten mit einer freien Lizenz verfügbar machen. Dabei wird, entsprechend dem Datentyp, eine Lizenz gewählt, die eine geeignete Nachnutzung der Daten ermöglicht und klar kennzeichnet. Beispiele: Für Source Code ist das die MIT-Lizenz, für alle anderen Daten könnten fallweise CC0 oder CC BY Lizenzen verwendet werden. Im Falle von gemeinfreien Daten, die keinerlei urheberrechtlichen Beschränkungen unterliegen, sollten diese mit der Creative Commons Public Domain Mark klar als solche gekennzeichnet werden.

Zu den Begriffsbestimmungen

- a) **Forschung** ist als jede kreative und auf systematischer Basis durchgeführte Arbeit definiert, die darauf gerichtet ist, den Wissensstand zu erhöhen, einschließlich der Erkenntnisse über den Menschen, die Kultur und die Gesellschaft sowie die Verwendung dieses Wissens zur Entwicklung neuer Anwendungen.
- b) Unter **Forschungsdaten** sind alle Informationen (unabhängig von ihrer Form oder ihrer Darbietung) zu verstehen, die erforderlich sind, um den Werdegang, das Ergebnis, die Beobachtungen oder Erkenntnisse eines Forschungsprojekts und seines Kontexts zu unterstützen oder zu validieren. Als Forschungsdaten sind solche Materialien definiert, die im Zuge wissenschaftlicher Vorhaben z.B. durch Digitalisierung, Aufzeichnungen, Quellenforschungen, Experimente, Messungen, Erhebungen oder Befragungen entstehen. Das beinhaltet auch Software und Code. Forschungsdaten haben unterschiedliche Ausprägungen. In ihrem Lebenszyklus können sie verschiedene Phasen durchlaufen: von Rohdaten, bearbeiteten Daten (inkl. „Negative“ und „Inconclusive Results“), über freigegebene Daten, bis hin zu publizierten Daten und Open Access publizierten Daten. Außerdem können sie unterschiedliche Zugangsgrade (Open Data, Restricted Data, Closed Data) aufweisen.

Weitere Definitionen von Forschungsdaten

1. **LERU Roadmap** for Research Data (LERU Research Data Working Group, Advice Paper No. 14 – December 2014):
"Research data, from the point of view of the institution with a responsibility for managing the data, includes: All data which is created by researchers in the course of their work, and for which the institution has a curatorial responsibility for at least as long as the code and relevant archives/record keeping acts require, and third-party data which have originated within the institution or come from elsewhere."
2. Australian Griffith University (Ingrid Dillo – Data Archiving and Networked Services (**DANS**), Certification as a means of providing trust, Florence, Fondazione Rinascimento Digitale, 2012):
"Research data are factual records, which may take the form of numbers, symbols, text, images or sounds, which are used as primary sources for research, which are commonly accepted in the research community as necessary to validate research findings."
3. University of Minnesota (Ingrid Dillo – Data Archiving and Networked Services (**DANS**), Certification as a means of providing trust, Florence, Fondazione Rinascimento Digitale, 2012): Research data are data in any format or medium that relate to or support research, scholarship, or artistic activity. They can be classified as:

Annex – Kommentare zur Muster-Policy

- a) Raw or primary data: information recorded as notes, images, video footage, paper surveys, computer files, etc.
- b) Processed data: analyses, descriptions, and conclusions prepared as reports or papers
- c) Published data: information distributed to people beyond those involved in data acquisition and administration

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Universität Klagenfurt



Österreichische Akademie der Wissenschaften



Universität Linz



Österreichische Bibliothekenverbund und Service Ges. m. b. H.



Universität Mozarteum Salzburg



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