e-Infrastructures Austria

Wissenschaftskommunikation, e-Infrastrukturen und wissenschaftliche Bibliotheken

Andreas Ferus

Fortbildungsseminar für Forschungsdaten und e-Infrastrukturen
Universität Wien, 6.-9. Juni 2016

]a[akademie der bildenden künste wien
Universitätsbibliothek

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Diese Unterlagen wurden im Rahmen der e-Infrastructures Austria Veranstaltung
Fortbildungsseminar für Forschungsdaten und e-Infrastrukturen
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Seminar-Website: http://e-seminar.univie.ac.at/
Projekt-Website: http://e-infrastructures.at/

„Definitionen“ für Wissenschaftskommunikation

- *„Scholarly communication refers to systems, processes/procedures, activities, or services in which scholarly information, intellectual properties, or knowledge in either real or virtual form are created, disseminated among scholars – including scientists, researchers, faculty, students, or other users – for academic endeavors…“* Association of College and Research Libraries (ACRL), 2003

- *„By scholarly communication we mean the processes of producing, organizing, disseminating and preserving scholarly knowledge. Scholarly communication does not only concern researchers, but also society at large, especially students, educators, policy makers, public administrators, funders, librarians, journalists, practitioners, publishers, public and private organizations, and interested citizens.“* Peter Kraker et al.: The Vienna Principles – A Vision for Scholarly Communication in the 21st Century. (unpublished)

Die 3 Ebenen der Wissenschaft und Wissenschaftskommunikation

Makroebene

- Kommunikation von Funktionen und Leistungen des Gesamtsystems für die **Gesellschaft**
  - z. B. „Wissenschaft als Fortschrittsmotor und Innovatorin“, „Forschungsergebnisse als kulturelles Kapital“ etc.

Mesoebene

- Kommunikation der Leistungen und Aufgaben wissenschaftlicher Einrichtungen im Hinblick auf konkrete Anwendungsmöglichkeiten im Zusammenhang mit **politische**n und **wirtschaftliche**n **Entscheidungsprozesse**n
  - z. B. Förderungsantrag, Berichtswesen (Wissensbilanz) etc.

➢ **„Science Communication“**

Quelle: Beatrice Dernbach, Christian Kleinert, Herbert Münder (Hrsg.): Handbuch Wissenschaftskommunikation. Springer VS: Wiesbaden 2012.

Die 3 Ebenen der Wissenschaft und Wissenschaftskommunikation

Mikroebene

- Kommunikation von Aufgaben und Leistungen einzelner **Wissenschaftler_innen**
  - Aufgreifen von Forschungsthemen
  - Umsetzung in Projekten
  - Kommunikation der Forschungsergebnisse (Publikation etc.)

➢ **„Scholarly Communication“**

Quelle: Beatrice Dernbach, Christian Kleinert, Herbert Münder (Hrsg.): Handbuch Wissenschaftskommunikation. Springer VS: Wiesbaden 2012.

Wissenschaftskommunikation und wissenschaftliche Bibliotheken

- *„Scholarly communication refers to systems, processes/procedures, activities, or services in which scholarly information, intellectual properties, or knowledge in either real or virtual form are created, disseminated among scholars – including scientists, researchers, faculty, students, or other users – for academic endeavors…*

➢ *…To achieve their ultimate goal of enhancing scholarly communication, libraries have served as crucial mediators for bridging the creators of information and knowledge to end users. Libraries have assumed responsibility for collecting, disseminating, and preserving scholarly information resources and providing other necessary services to scholars.“*

Association of College and Research Libraries (ACRL), 2003

101 Innovations in Scholarly Communication

innoscholcomm.silk.co

Jeroen Bosman @jeroenbosman
Utrecht University Library

The Changing Research Workflow

Bianca Kramer @MsPhelps
Utrecht University Library

Science is in transition. This poster gives an impression of the exploratory phase of a project aiming to chart innovation in scholarly information and communication flows from evolutionary and network perspectives.

We intend to address the questions of what drives innovation and how these innovations change research workflows and may contribute to more **open, efficient** and **good** science.

101 Innovative tools and sites in 6 research workflow phases (< 2000 - 2015)

January 2015

Most important developments in 6 research workflow phases

	Discovery	Analysis	Writing	Publication	Outreach	Assessment
Trends	social discovery tools	datadriven & crowdsourced science	collaborative online writing	Open Access & data publication	scholarly social media	article level (alt)metrics
Expectations	growing importance of data discovery	more online analysis tools	more integration with publication & assessment tools	more use of "publish first, judge later"	use of altmetrics for monitoring outreach	more open and post-publication peer review
Uncertainties	support for full-text search and text mining	willingness to share in analysis phase	acceptance of collaborative online writing	effect of journal/publisher status	requirements of funders & institutions	who pays for costly qualitative assessment?
Opportunities	discovery based on aggregated OA full text	open labnotes	semantic tagging while writing/citing	reader-side paper formatting	using repositories for institutional visibility	using author-, publication- and affiliation-IDs
Challenges	real semantic search (concepts & relations)	reproducibility	safety/privacy of online writing	globalization of publishing/access standards	making outreach a two-way discussion	quality of measuring tools
Most important long-term development	multidisciplinary + citation-enhanced databases	collaboration + data-driven	online writing platforms	Open Access	more & better connected researcher profiles	importance of societal relevance + non-publication contributions
Potentially most disruptive development	semantic/concept search + contextual/social recommendations	open science	collaborative writing + integration with publishing	circumventing traditional publishers	public access to research findings, also for agenda setting	moving away from simple quantitative indicators

Typical workflow examples

Quelle: Bianca Kramer; Jeroen Bosman: 101 Innovations in Scholarly Communication – the Changing Research Workflow. figshare 2015. https://dx.doi.org/10.6084/m9.figshare.1286826.v1 (Poster presented at Force 2015)

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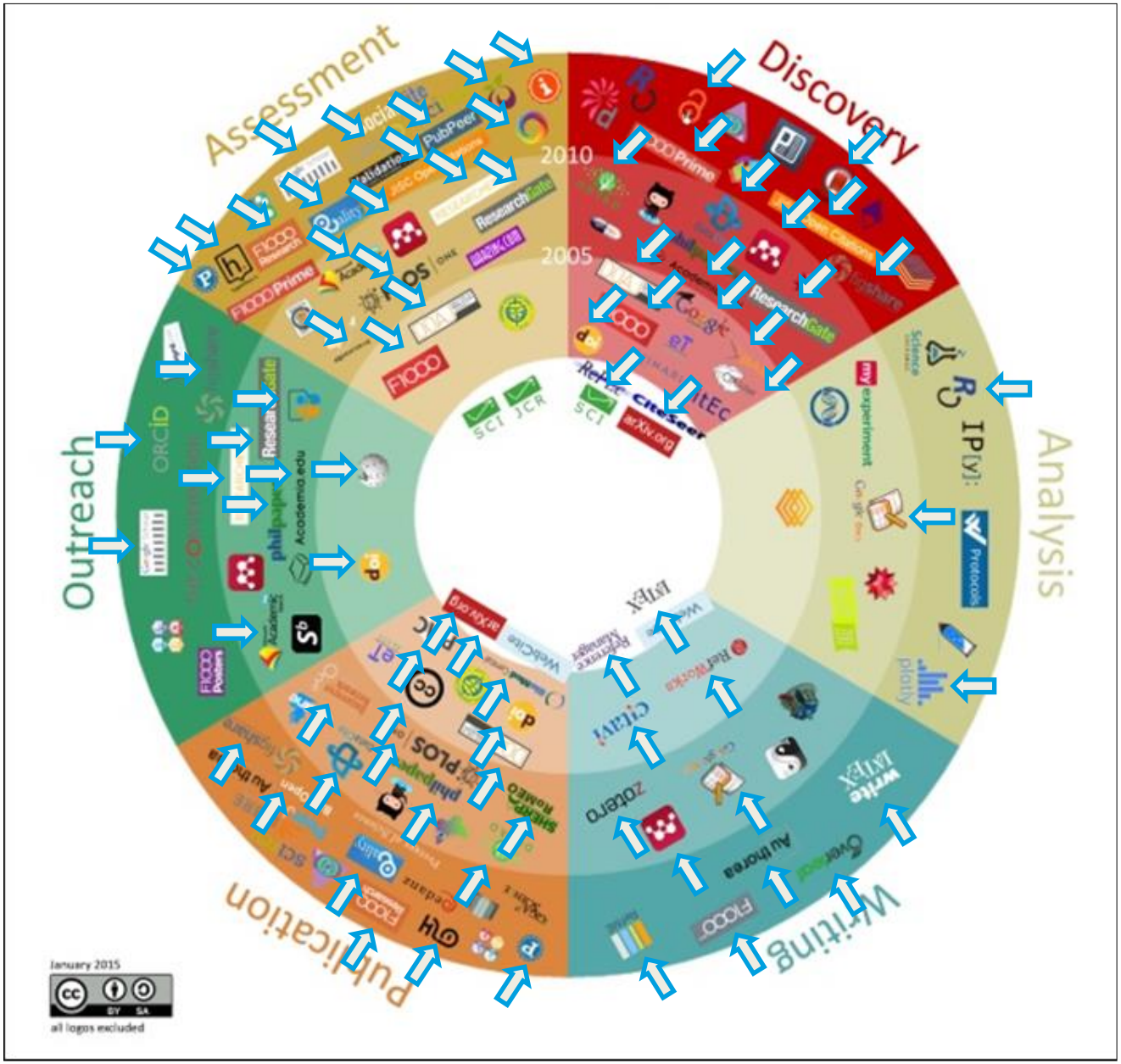

Quelle: Bianca Kramer; Jeroen Bosman: 101 Innovations in Scholarly Communication – the Changing Research Workflow. figshare 2015. https://dx.doi.org/10.6084/m9.figshare.1286826.v1 (Poster presented at Force 2015)

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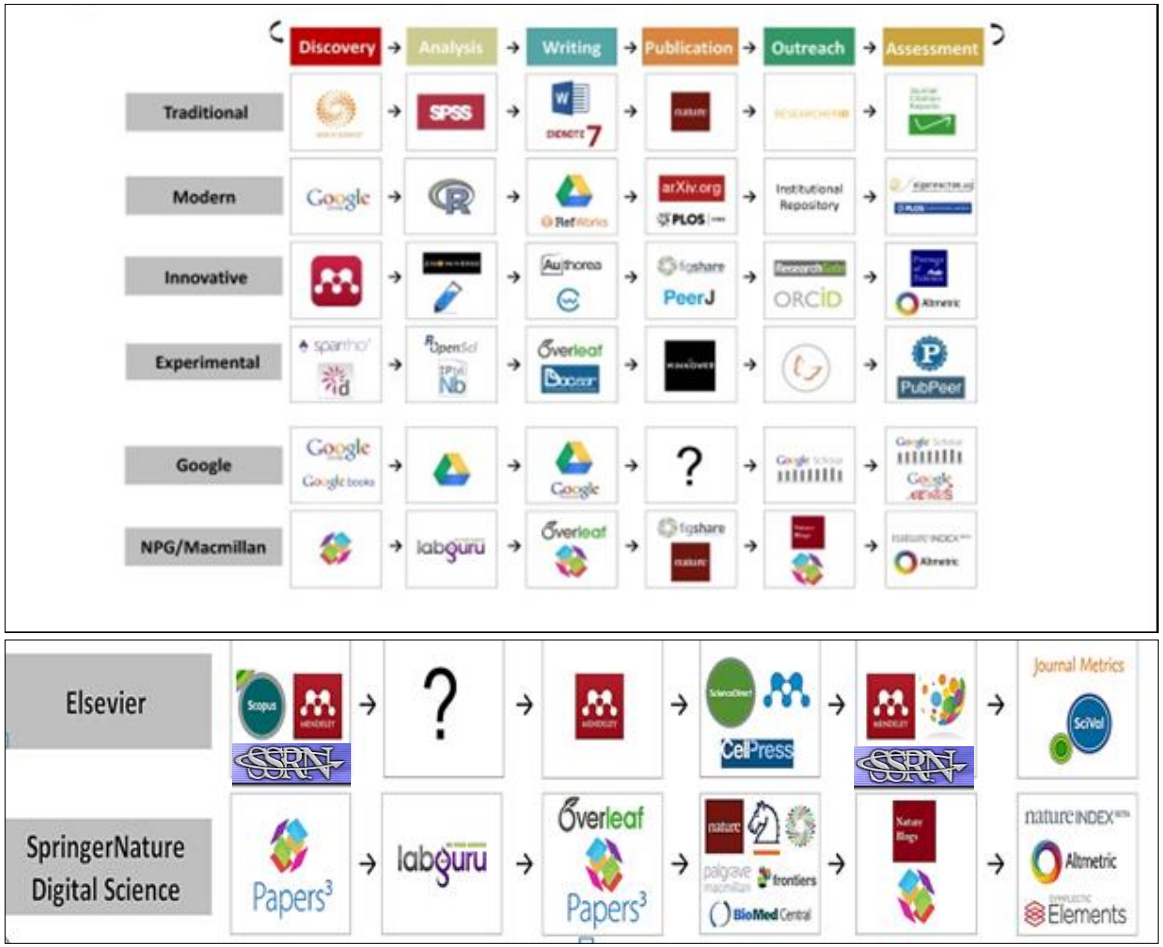
Exkurs: Typische Workflows, aktuelle Entwicklungen und potentielle Probleme



Quelle: Bianca Kramer; Jeroen Bosman: 101 Innovations in Scholarly Communication – the Changing Research Workflow. figshare 2015. https://dx.doi.org/10.6084/m9.figshare.1286826.v1 (Poster presented at Force 2015)

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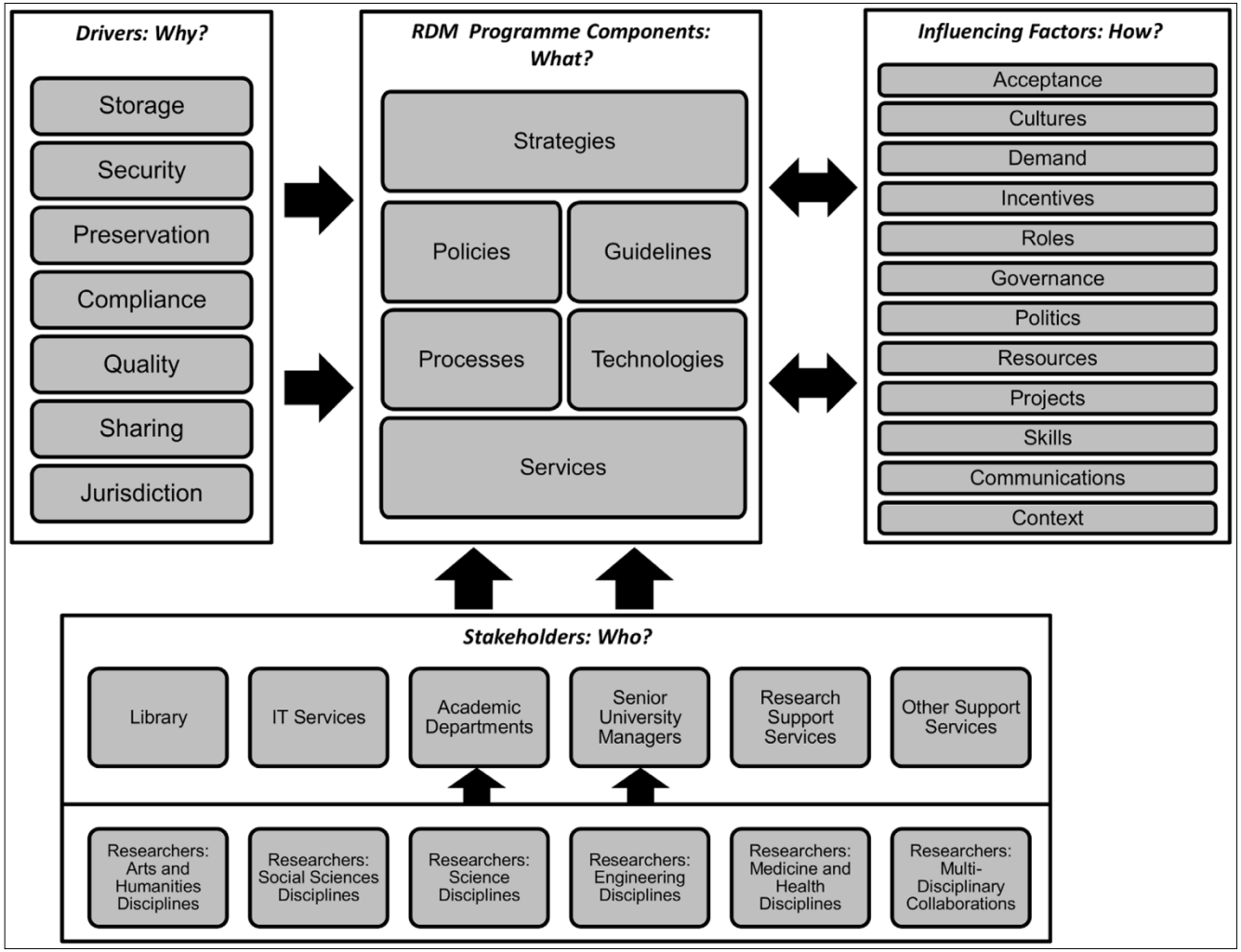
Forschungsdatenmanagement und wissenschaftliche Bibliotheken



Quelle: Stephen Pinfield, Andrew M. Cox, Jen Smith (2014) Research Data Management and Libraries: Relationships, Activities, Drivers and Influences. PLoS ONE 9(12): e114734. DOI: 10.1371/journal.pone.0114734

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Forschungsdatenmanagement und wissenschaftliche Bibliotheken

Service	Key Stakeholders	Library's Coordination Role
Access control	Researchers, research support units	Advise on data embargoing and access control issues
Awareness of RDM mandates and services	Institutional leadership, researchers, research support units	Coordinate with research office staff and administrators across campus to raise awareness of RDM mandates and services
Data citation	Researchers, research support units	Provide persistent identifiers, including Digital Object Identifiers (DOIs) for data sets
Data documentation	Researchers, research support units	Help researchers determine how best to document their data at the beginning of a project, following disciplinary standards
Data management planning	Governments and funders, researchers, research support units, institutional leadership	Provide outreach to institutional leadership and research support units to develop data management plan assistance processes on campus; connect researchers with local and disciplinary resources to meet funding agency requirements
Hosting data	Institutional leadership, researchers, research support units	Work with institutional leadership and research support units to provide infrastructure for hosting data (institutional data repositories), or helping connect researchers with available infrastructure (disciplinary repositories)

Forschungsdatenmanagement und wissenschaftliche Bibliotheken

Service	Key Stakeholders	Library's Coordination Role
Intellectual property and copyright	Researchers, research support units	Provide guidance on intellectual property and copyright matters surrounding research data
Preservation	Researchers, research support units	Advise on appropriate data formats for preservation, preparing data sets for long-term preservation
Privacy and confidentiality	Researchers, research support units	Advise researchers and research office staff on privacy and confidentiality issues in data management
Repository selection	Researchers, research support units	Help individuals select trusted digital repositories for preserving data sets, whether those are disciplinary repositories or institutionally managed repositories
RDM training	Researchers, research support units	Communicate best practices developed by the RDM community to groups of researchers
Scholarly impact	Researchers, research support units	Promote mechanisms to track the impact of data sharing - downloads, citations, etc.
Scholarly output	Researchers, research support units	Help connect data sets to other scholarly output through linked data and citation mechanisms

Quelle: Jodi Reeves Flores, Jason J. Brodeur, Morgan G. Daniels, Natsuko Nicholls, and Ece Turnator: Libraries and the Research Data Management Landscape. In: John C. Maclachlan, Elizabeth A. Waraksa, and Christa Williford (eds.): The Process of Discovery: The CLIR Postdoctoral Fellowship Program and the Future of the Academy (CLIR Publication No. 167), Council on Library and Information Resources: Washington, DC 2015, p. 82–102.
Online unter: https://www.clir.org/pubs/reports/pub167/pub167.pdf (Zugriff: 02.06.2016)

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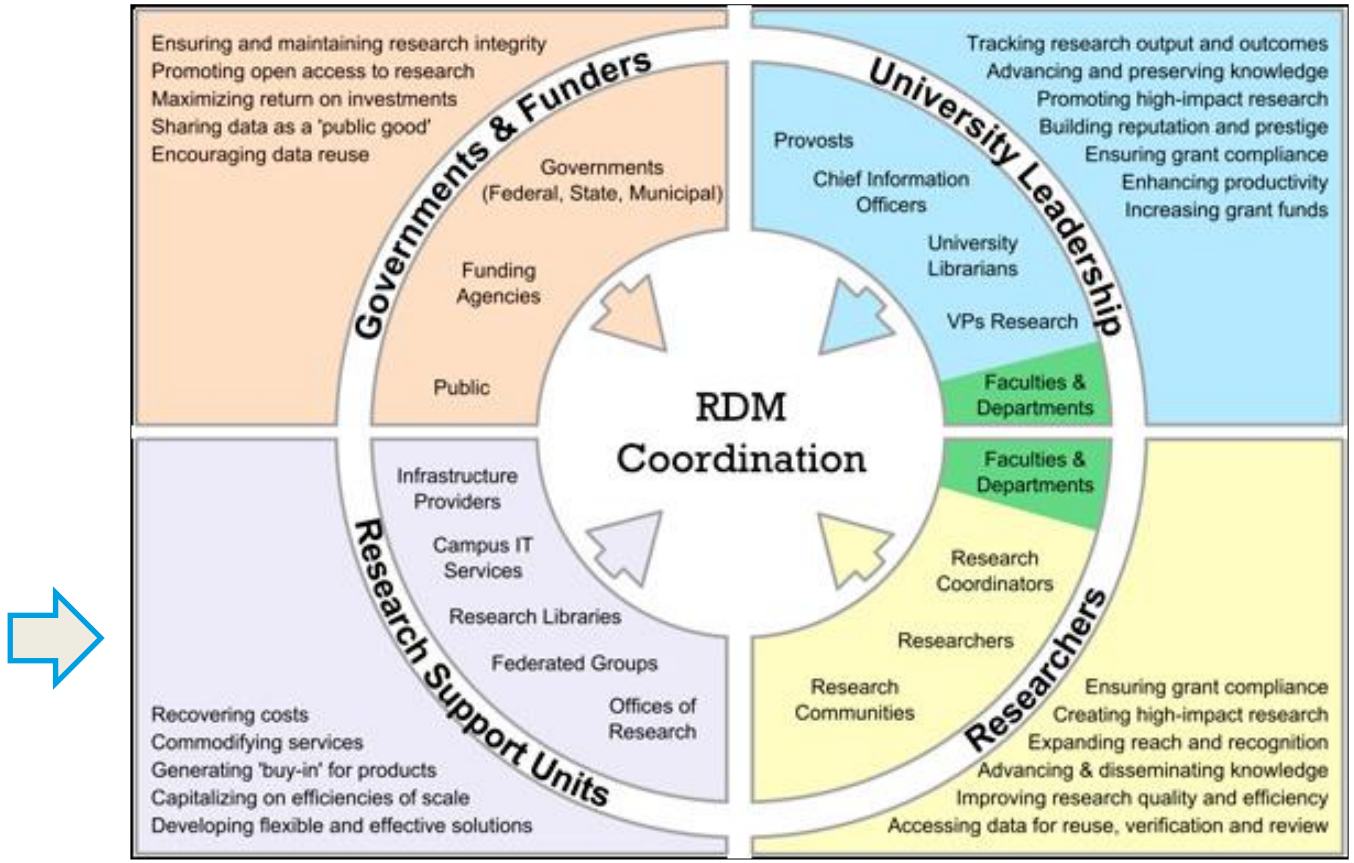
Partner_innen wissenschaftlicher Bibliotheken im Zusammenhang mit dem Thema Forschungsdatenmanagement



Quelle: Jodi Reeves Flores, Jason J. Brodeur, Morgan G. Daniels, Natsuko Nicholls, and Ece Turnator: Libraries and the Research Data Management Landscape. In: John C. Maclachlan, Elizabeth A. Waraksa, and Christa Williford (eds.): The Process of Discovery: The CLIR Postdoctoral Fellowship Program and the Future of the Academy (CLIR Publication No. 167), Council on Library and Information Resources: Washington, DC 2015, p. 82–102. Online unter: https://www.clir.org/pubs/reports/pub167/pub167.pdf (Zugriff: 02.06.2016)

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Let‘s team up and build a unit!

Because…

©Margaret Baderin

Online unter: http://www.ajbubb.com/there-is-no-i-in-team/ (Zugriff: 02.06.2016)

Vielen herzlichen Dank für Ihre Aufmerksamkeit!

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