

Dynamik in wissenschaftlicher Kommunikation und Publikation → Funktion, Rolle und Strategien für Repositorien



Friedrich Summann,
Jochen Schirrwagen
{friedrich.summann,
jochen.schirrwagen}
@uni-bielefeld.de

Kolloquium
Wissensinfrastruktur
07.Juni 2013

Agenda

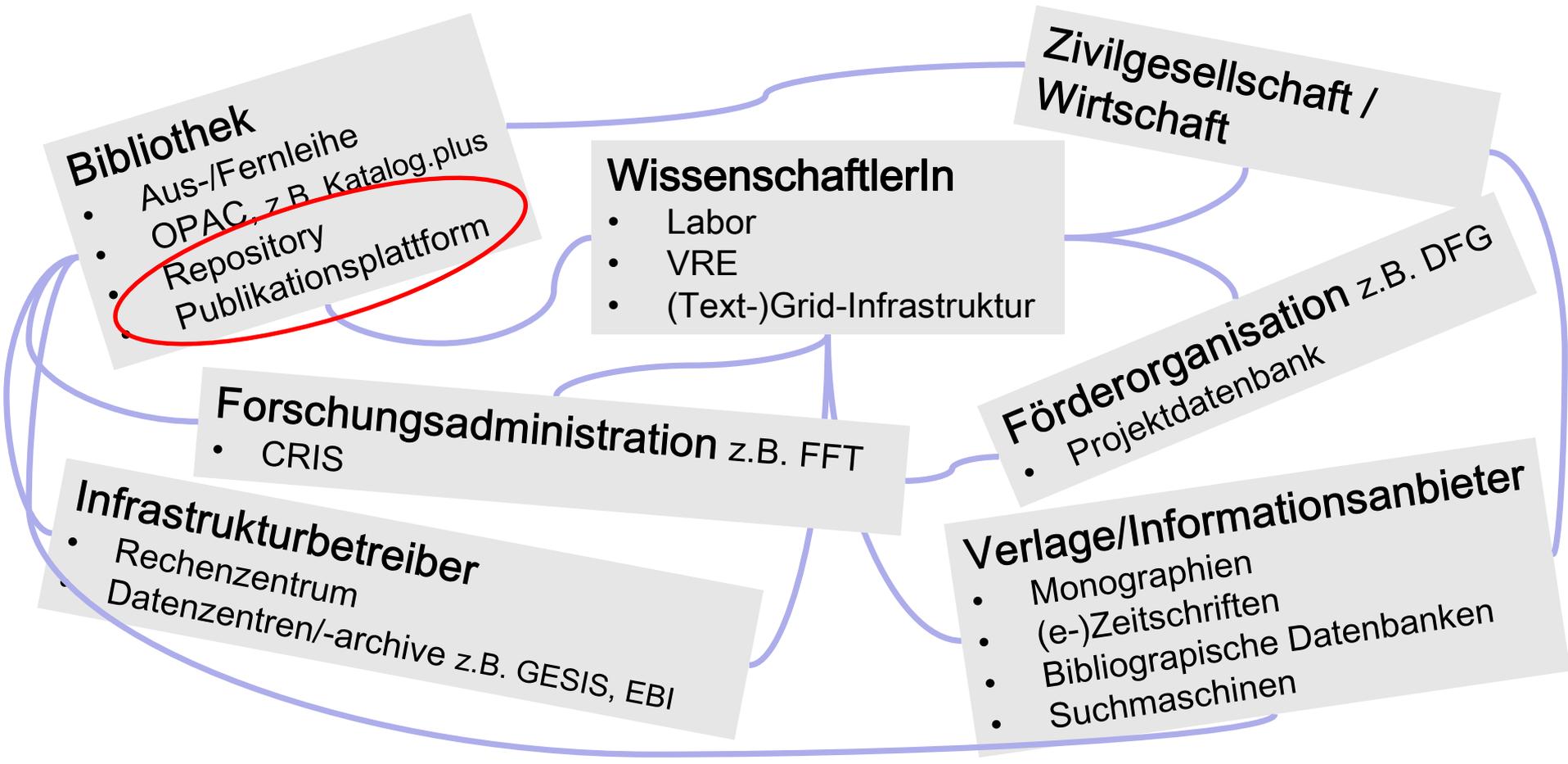
“Wissenschaftliche” Sicht



“Bibliothekarische” Sicht



Interessengruppen und Services (Auswahl)



Einflußfaktoren und Rahmenbedingungen (Auswahl)

- Wissenschafts- und Forschungspolitik
 - Evaluation, Förderung / Finanzierung, Breite vs. Elite
- Publikationsmodelle - Open Access
- Digitale Technologien / Web
- Wissenschaftliche Praxis
 - Open{-Access, -Science, -Data} Vorreiter
 - “Data-Driven” Science
- Ökonomische Interessen
 - Nutzbarkeit von Forschungsergebnissen
 - Betriebsmodelle für “Wissens“-dienste & -infrastrukturen

Neuartige Aspekte (Auswahl)

- Trend zur Integration / Vernetzung von Services
 - Datenzentren, Repositories, Forschungsinfo-Systeme
- Assessment wissenschaftlicher Ergebnisse
 - Metriken, Statistiken
- Technologie-Updates
 - Linked Data, Cloud, Such-/Index-Server
- Publikationstypen
 - Datenpublikationen, Executable papers, Open-Monographs
- Rollen- und Zuständigkeitsverständnis
 - Data-Librarian

Science 2.0 (Quelle: Wikipedia)

Current model

Research done privately; then submitted to journals; then peer-reviewed by gatekeepers in major journals; published

Scientific literature behind paywalls online

Credit established by name attached to journal article.

Data is private until publication

Papers generally protected by copyright

Reviewers not paid.

Journal article summaries available online after publication

Emerging model

Research data shared during discovery stages; ideas shared; scientists collaborate; then findings are disseminated online

Scientific discoveries free online

How is credit established for contributors?

Data is shared before publication

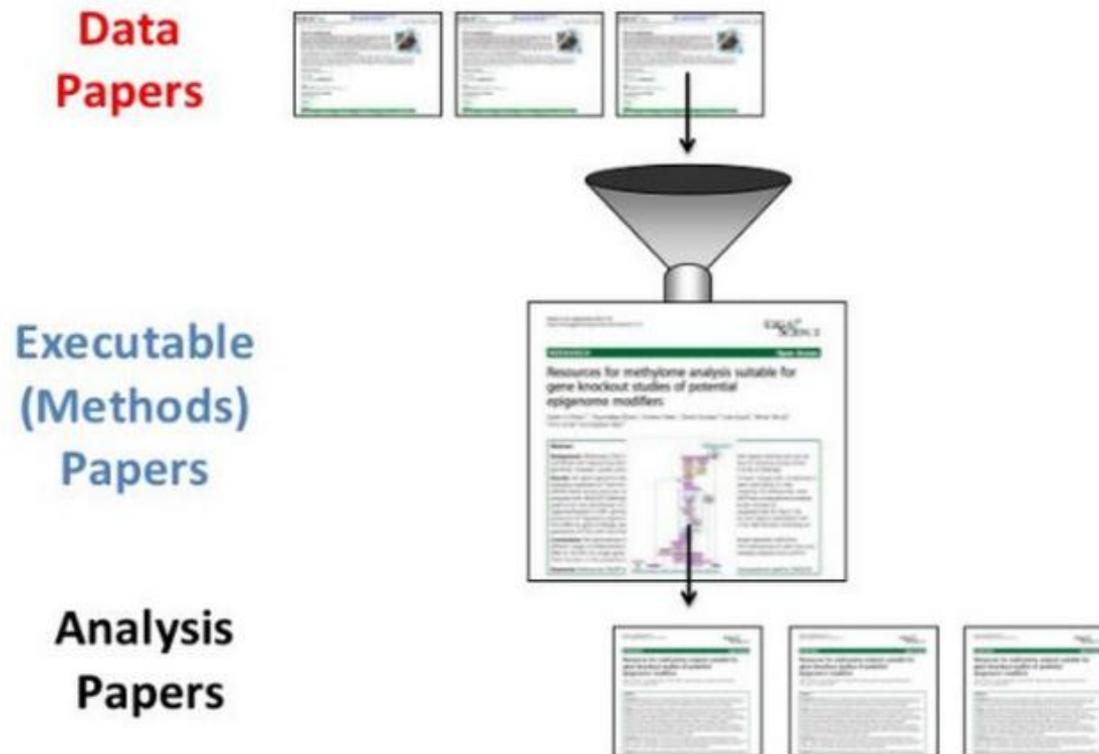
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Who will pay the reviewers? How will they be paid?

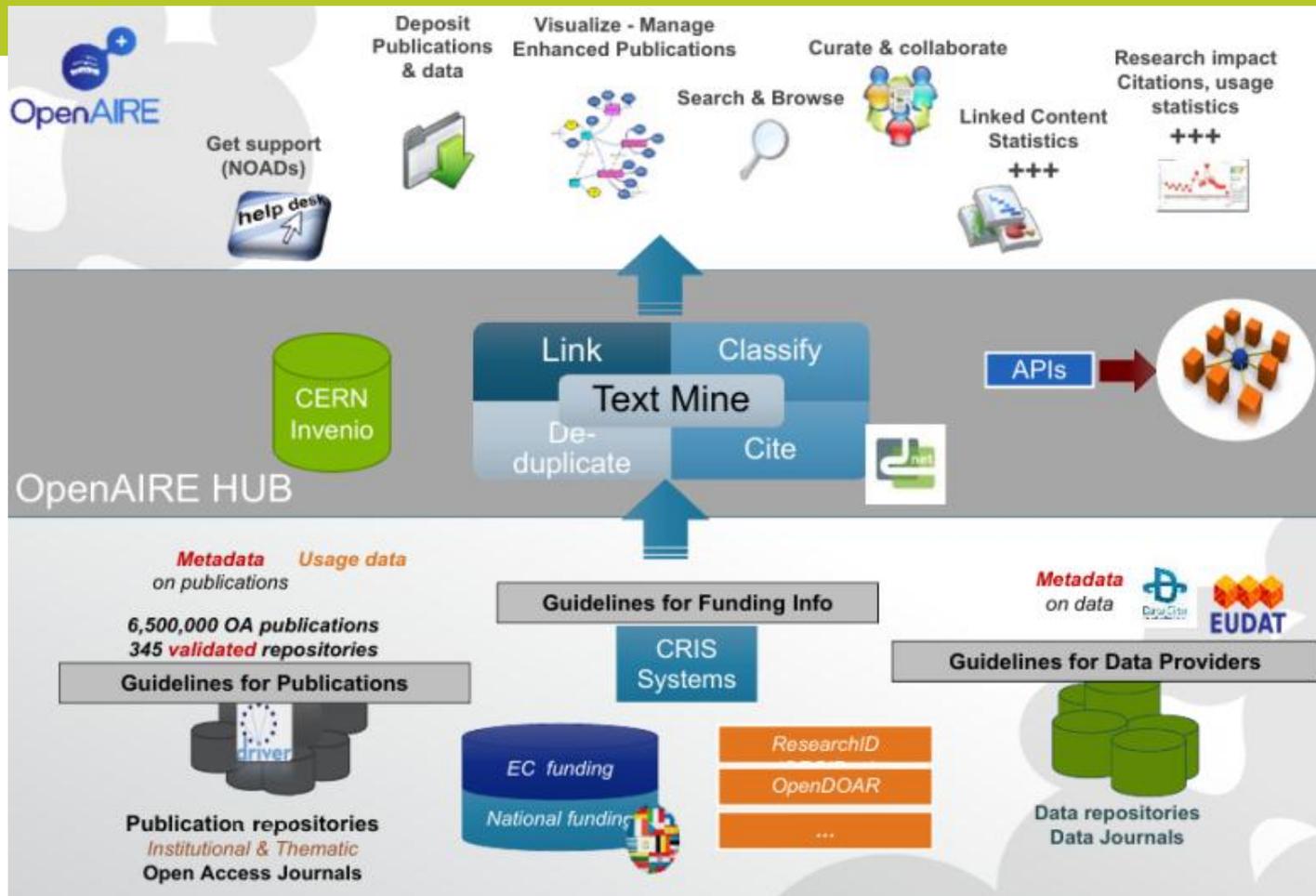
Share methods, data, findings via blogs, social networking sites wikis, computer networking, Internet, video journals

Transformation von Research Papers in Executable Data Objects (Quelle: GigaScience data platform)

Different shaped publishable objects



Interoperabilität – der Kit, der alles verbindet (am Beispiel von FP7-OpenAIREplus)





FORCE 11

(The Future of Research Communications and e-Scholarship)

- Zielt auf effizienten Einsatz von Informationstechnologie
 - Unterstützt Veränderungsprozess in moderner wissenschaftlicher Kommunikation
- Getragen von
 - Wissenschaftlern, Bibliothekaren, Archivaren, Verlagen, Forschungsförderern
- Hervorgegangen aus FORC-Workshop
 - Schloss Dagstuhl, August 2011
- Beyond the PDF; FORCE11 Manifesto

FORCE 11 (White Paper)



Problems	Recommendations
Formats and Technologies	
2.1 Existing formats needlessly limit, inhibit and undermine effective knowledge transfer	3.1 Rethink the unit and form of the scholarly publication
2.2 Improved knowledge dissemination mechanisms produce information overload	3.2 Develop tools and technologies that better support the scholarly lifecycle
2.3 Claims are hard to verify and results are hard to reuse	3.3 Add data, software, and workflows into the publication as first-class research objects
Business Models and Attribution of Credit	
2.4 There is a tension between commercial publishing and the provision of unfettered access to scholarly information	3.4 Derive new financially sustainable models of open access
2.5 Traditional business models of publishing are being threatened	3.5 Derive new business models for science publishers and libraries
2.6 Current academic assessment models don't adequately measure the merit of scholars and their work over the full breadth of their research outputs	3.6 Derive new methods and metrics for evaluating quality and impact that extend beyond traditional print outputs to embrace the new technologies

Research Data Alliance



- Gründungstreffen 03/2013, Göteborg
- Globale Initiative
 - Unterstützt von Förderorganisationen in
 - USA, EU, Australien
- Working & Interest Groups Community-spezifisch
 - Zielt auf Verbesserung bzw. Harmonisierung von
 - Standardisierung, z.B. Datendokumentation
 - Zugang, Sichtbarkeit, Austausch, Nachnutzbarkeit
 - Regeln, Verwaltung, Aufbewahrung von Forschungsdaten

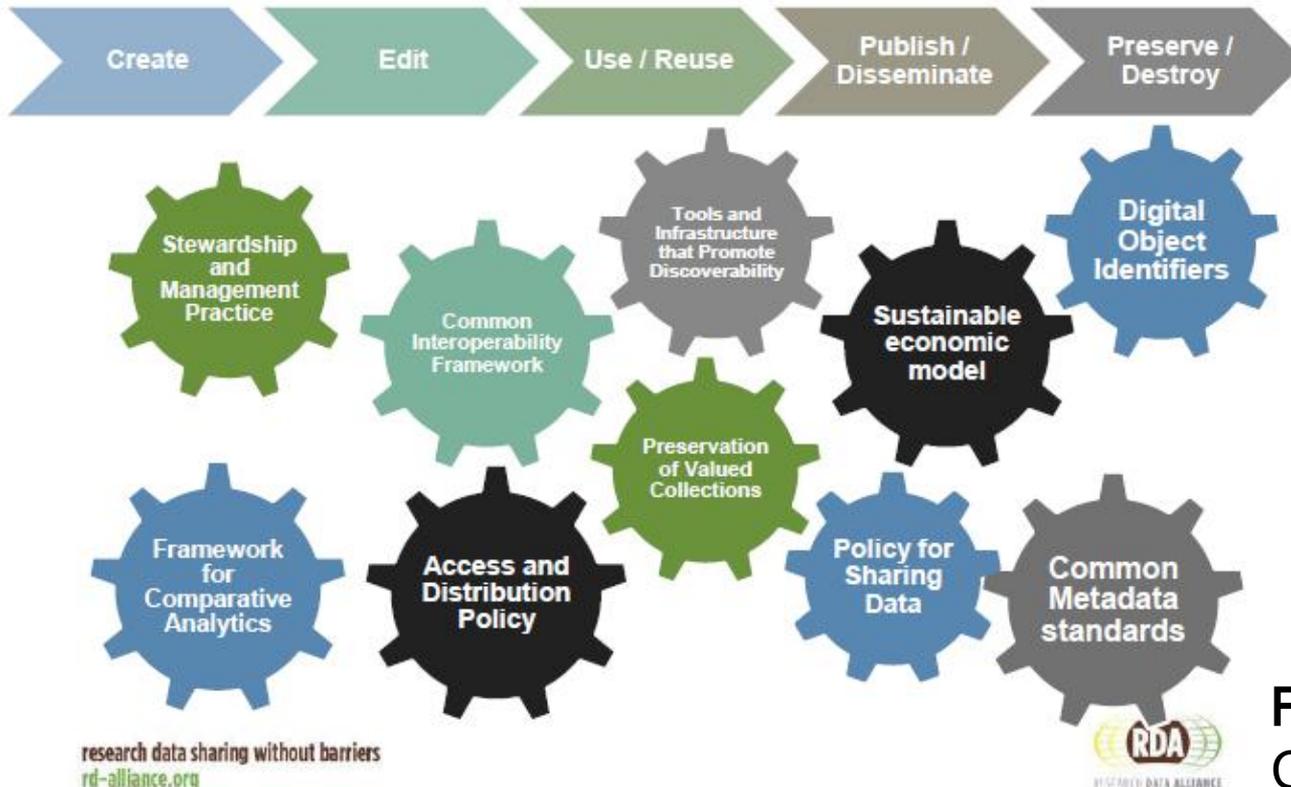
Research Data Alliance



Research Data Sharing
without barriers

Common Infrastructure, Policy and Practice Drives Data
Sharing and Exchange throughout the Data Life Cycle

5



Francine Berman,
Chair of the RDA / U.S



COAR

(Confederation of Open Access Repositories)

- Gegründet in 10/2009, Ghent (FP7-DRIVER)
 - > 90 Institutionen aus 24 Ländern
 - UNIBI ist aktives Mitglied
- Globales Netzwerk der Open Access Repository-Community
- Mission:
 - Verbesserung der Sichtbarkeit und Anwendbarkeit von Forschungsergebnissen

COAR - Arbeitsgruppen

Repository
Content

Repository
Interoperability

Repository
Observatory

Support &
Training

OA
Agreements /
Licenses

COAR Interoperability Project

- Forum zu Fragen der Interoperabilität
 - zwischen OA-Repositories
 - zu einer weiter gefassten Forschungsinfrastruktur

Informationspapier
“The case for
Interoperability for
OA Repositories”

Diskussion
Analyse

Repository
Interoperability
Report

Roadmap
Future Directions
Repository
Interoperability

Zukünftige Entwicklungen für Repositorien

Kolloquium Wissensinfrastruktur,
7.6.2013

Friedrich Summann
Universitätsbibliothek Bielefeld

Quo vadis Repositorien? – Session der DINI-AG Elektronisches Publizieren auf dem 5. BID-Kongress in Leipzig (18.03.2013)

Paul Vierkant (Humboldt-Universität zu Berlin):

[*Census der Open-Access-Repositorien in Deutschland – Leuchttürme der deutschen Repositorienlandschaft*](#)

Was ist die Zukunft?

Friedrich Summann (Universitätsbibliothek Bielefeld):

[*Institutionelle Repositorien an Hochschulen – Oder: Wie geht es weiter?*](#)

Roland Bertelmann (Bibliothek des GeoForschungsZentrums Potsdam):

[*Repositorien an außeruniversitären Forschungseinrichtungen*](#)

Olaf Siegert (Zentralbibliothek Wirtschaft):

[*Fachbezogene Repositorien in Deutschland – Status Quo und Ausblick*](#)

Friederike Gerland (Bibliotheksservice-Zentrum Baden-Württemberg):

[*Hosting von Repositorien*](#)

Uwe Müller (Deutsche Nationalbibliothek), **Frank Scholze** (KIT-Bibliothek):

[*DINI-Zertifikat 2013*](#)

„Vergessen Sie den Begriff ***Repository***“

Stefan Gradmann

(DINI-Vernetzungstage,

Podiumsdiskussion, Osnabrück 2011)

„Vergessen Sie den Begriff ***Repository***“

„Vergessen Sie den Begriff ***Bibliothek***“

Stefan Gradmann

(DINI-Vernetzungstage,

Podiumsdiskussion, Osnabrück 2011)



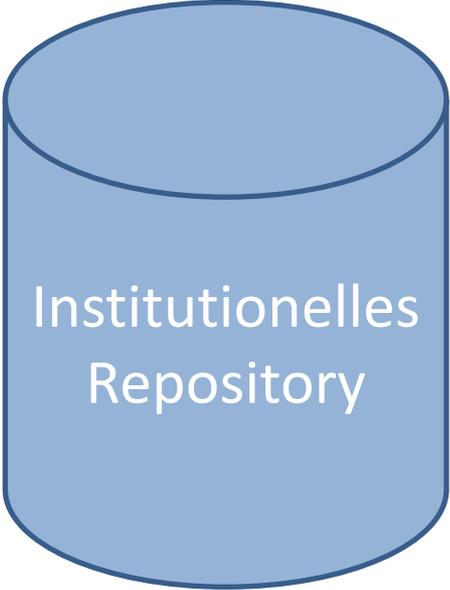
Institutionelles
Repository

Inhalte:

Hochschulschriften
Publikationen



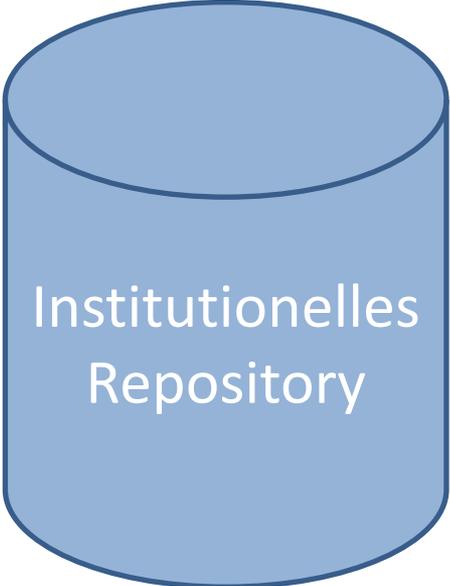
Publikations-
Management-
System



Institutionelles
Repository



Publikations-
Management-
System



Institutionelles
Repository



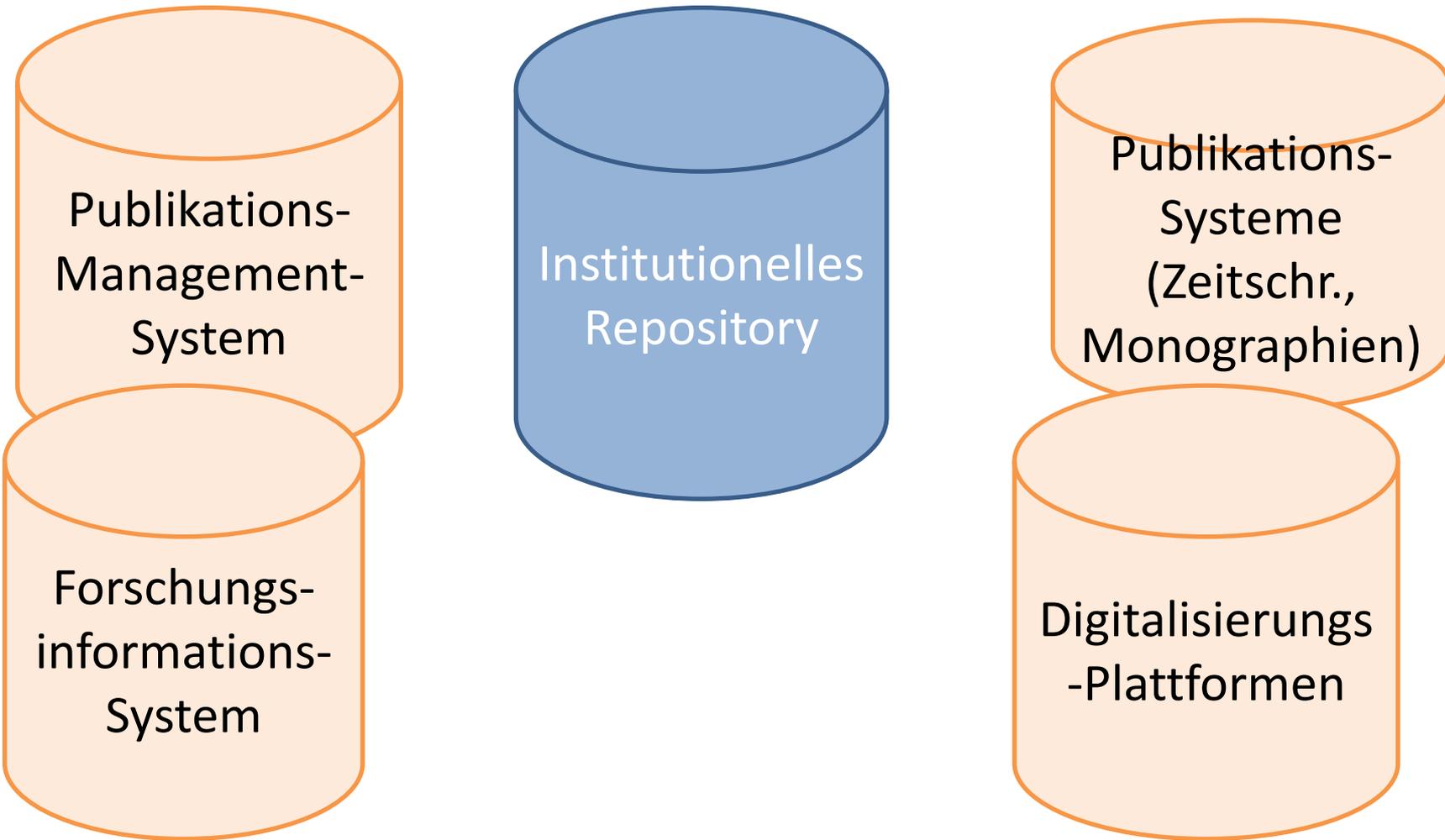
Publikations-
Systeme
(Zeitschr.,
Monographien)

Publications-
Management-
System

Forschungs-
informations-
System

Institutionelles
Repository

Publikations-
Systeme
(Zeitschr.,
Monographien)



Publikations-
Management-
System

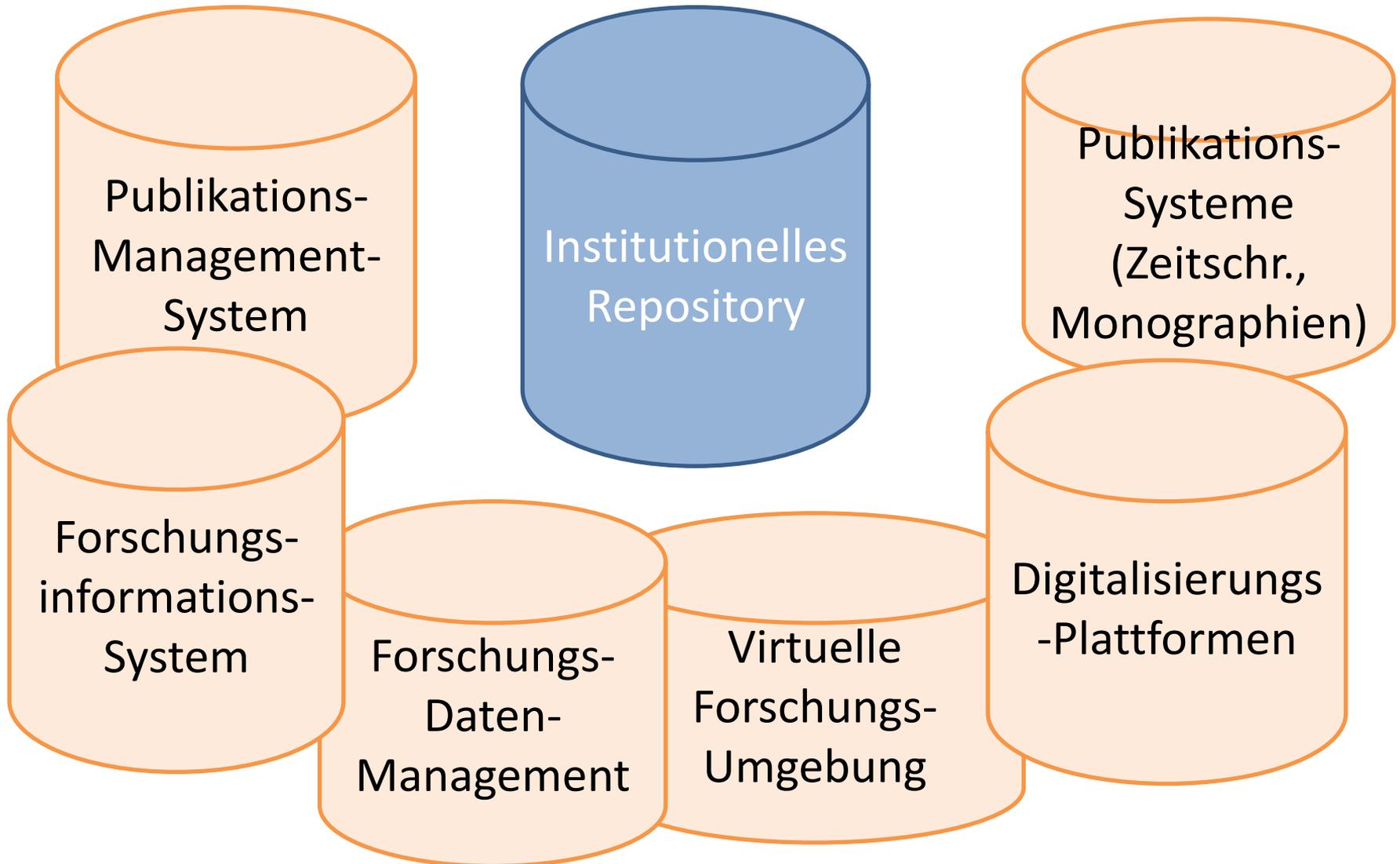
Forschungs-
informations-
System

Institutionelles
Repository

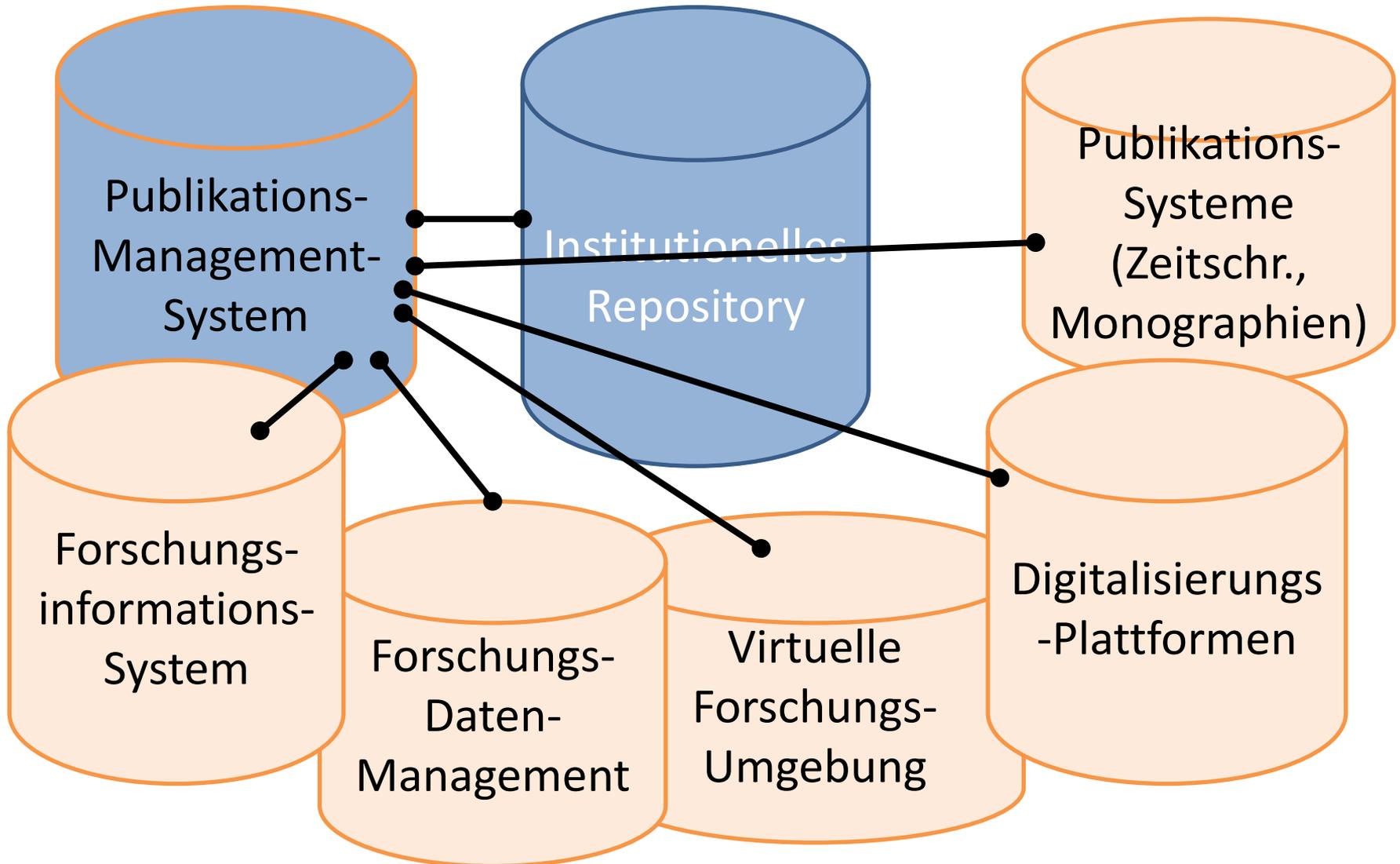
Publikations-
Systeme
(Zeitschr.,
Monographien)

Digitalisierungs-
Plattformen

Die Repository-Landschaft in der Hochschule



Beispiel: UNIBI



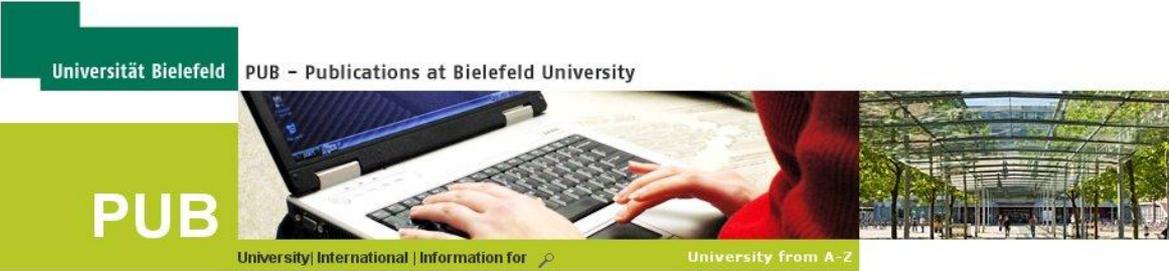
Repository-Kriterien



- Sichtbarkeit
- Usability
- Einbettung
- Vernetzung
- Metadaten-Qualität
- Nachhaltigkeit

Einbettung

- Persönliche Publikationsliste
- Einrichtungslisten
- Hochschulbibliographie
- Embed Generator
 - Code Snippets (Javascript)
 - Links
- SRU/HTTP-Schnittstelle



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Survey of sugar beet (*Beta vulgaris* L.) hAT transposons and MITE-like hATpin derivatives.
Plant Molecular Biology 78(4-5): 395 - 405.
[PUB](#) | [DOI](#) | [PubMed](#) | [Europe PMC](#)
- [119] 2012 | Journal Article | PUB-ID: 2454417 [Mark](#)
Dohm JC, Lange C, Holtgräwe D, Rosleff Sørensen T, Borchardt D, Schulz B, Lehrach H, Weisshaar B, Himmelbauer H (2012)
Palaeohexaploid Ancestry for Caryophyllales Inferred from Extensive Gene-Based Physical and Genetic Mapping of the Sugar Beet Genome (*Beta vulgaris*).
The Plant Journal 70(3): 528 - 540.
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Center of Excellence Cognitive Interaction Technology

CITEC



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Journal of Human-Robot Interaction 2(Special Issue: HRI System Studies): 56 - 81.
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In: Proceedings der 24. Konferenz zur Elektronischen Sprachsignalverarbeitung (ESSV 2013).
Bielefeld, Germany.
[PUB](#)
- Carota A, Marangolo P, Markowitsch HJ, Calabrese P (2013)
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@chriskeene

[@webofknowledge](#) Any news of problems this morning, I've seen lots of messages from other Uni's but none from you?

↕ Retweeted by PUB - Uni Bielefeld

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 **rOpenSci** 11 Apr
@rOpenSci

We're excited to announce that rEBI, an interface to Europe PMC API by Najko Lahn is now part of rOpenSci

Tweet to @PUBUniBielefeld

Vernetzung

- Metadatenfetch ISI, ArXIV, INSPIRE, PubMed
- Forschungsdatenfetch Europe PMC
- IDM, PEVZ der Univ.
- ISI Zitationinformationen
- Google Scholar/BASE/Google Links
- Zitationsformate via CSL Engine
- Schnittstellen (OAI-PMH/SRU/HTTP)

Complete Genome Sequence of *Listeria seeligeri*, a Nonpathogenic Member of the Genus *Listeria* (PUB - Publications at Bielefeld University) - Mozilla Firefox

http://pub.uni-bielefeld.de/publication/1588692

Meistbesuchte Sei... openSUSE Getting Started Universitaetsbibliothe... Latest Headlines Mozilla Firefox UB EDV - Main/Hom... Tippübersicht

Sur le postula... BASE - OALA... Repositorios I... RGB_Schrift... UB Bielefeld - ... Complete Gen... Tippabgabe Laden... Niclas Füllkr...

PUB University | International | Information for University from A-Z

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Complete Genome Sequence of *Listeria seeligeri*, a Nonpathogenic Member of the Genus *Listeria*

Steinweg C, Kuenne CT, Billion A, Mraheil MA, Domann E, Ghai R, Barbuddhe SB, Kaerst U, Goesmann A, Pühler A, Weisshaar B, et al. (2010)
 Journal of Bacteriology 192(5): 1473 - 1474.
 DOI **10.1128/JB.01415-09**
Journal Article | Published | Quality Controlled | English

Details **Research Data**

Authors Steinweg, Christiane ; Kuenne, Carsten T. ; Billion, Andre ; Mraheil, Mobarak A. ; Domann, Eugen ; Ghai, Rohit ; Barbuddhe, Sukhadeo B. ; Kaerst, Uwe ; **Goesmann, Alexander**^{UniBi} ; **Pühler, Alfred**^{UniBi} ; **Weisshaar, Bernd**^{UniBi} ; Wehland, Juergen

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Transcriptional regulator, GntR family - *Listeria seeligeri* serovar 1/2b (strain ATCC 35967 / DSM 20751 / CIP 100100 / SLCC 3954) - Mozilla Firefox

http://www.uniprot.org/uniprot/D3UPV3.html

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Names Attributes General annotation Ontologies Sequences References Cross-refs Entry info Customize order

Biological_process	transcription, DNA-dependent Inferred from electronic annotation. Source: UniProtKB-KW
Cellular_component	intracellular Inferred from electronic annotation. Source: InterPro
Molecular_function	DNA binding Inferred from electronic annotation. Source: UniProtKB-KW sequence-specific DNA binding transcription factor activity Inferred from electronic annotation. Source: InterPro

Complete GO annotation...

Sequences

Sequence	Length	Mass (Da)	Tools
<input type="checkbox"/> D3UPV3 [UniParc]. Last modified April 20, 2010. Version 1. Checksum: 387B5E88DF26B920	FASTA	233	27,007 <input type="button" value="Blast"/> <input type="button" value="go"/>

```

10      20      30      40      50      60
MSAKKPLFEV IAYELREKIN RDEYKAGMLM PNESELQEIF SSSRTTIRRA VDLLVAEGLV
70      80      90     100     110     120
IRKNGIGLYV EPKLTANIL  EMTGVIMNDT  KEDAKKDIKD FYVRKAGTFY AEKFGIKENE
130     140     150     160     170     180
LVYSVKFIQK NEHTVTLDRL ILPLGLYPD L QVKDLHIINI IELVMSGKYK LFELEQELQL
190     200     210     220     230
VLAGNEQMKY MHLKENDPVF KLSSLFYAEN QLPVIAIQHY EDAESTKYVV DFN

```

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References

[1] "Complete genome sequence of *Listeria seeligeri*, a nonpathogenic member of the genus *Listeria*." Steinweg C., Kuenne C.T., Billion A., Mraheil M.A., Domann E., Ghai R., Barbudde S.B., Karst U., Goesmann A., Puhler A., Weisshaar B., Wehland J., Lampidis R., Kreft J., Goebel W., Chakraborty T., Hain T. *J. Bacteriol.* 192:1473-1474(2010) [PubMed] [Europe PMC] [Abstract] [Cited for: NUCLEOTIDE SEQUENCE \[LARGE SCALE GENOMIC DNA\].](#) [Strain: ATCC 35967 / DSM 20751 / CIP 100100 / SLCC 3954.](#)

Cross-references

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Fertig

Gaining Access to the Field of Work Organizations with the Issue of “Work-Family-Life Balance” for Fathers

von Alemann A, Beaufays S, Reimer T (2012)

In: SFB 882 Working Paper Series. 7 Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Download [SFB_882_WP_0007_Alemann_Beufays_Reimer.pdf](#)

URL http://www.sfb882.uni-bielefeld.de/sites/default/files/SFB_882_WP_0007_Alemann_Beufays_Reimer.pdf

URN urn:nbn:de:0070-pub-25494606

Working Paper | Published | English

Details

Authors [von Alemann, Annette^{UniBi}](#); [Beufays, Sandra^{UniBi}](#); [Reimer, Thordis^{UniBi}](#)

Department SFB 882 Teilprojekt B5
SFB 882 Von Heterogenitäten zu Ungleichheiten
Fakultät für Soziologie

Keywords work organizations ; gendered organizations ; field access ; fathers

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von Alemann A, Beaufays S, Reimer T. Gaining Access to the Field of Work Organizations with the Issue of “Work-Family-Life Balance” for Fathers. In: *SFB 882 Working Paper Series*. Vol 7. Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities; 2012.

Usability

- Autorenidentifikation
- Einrichtungszuordnung
- Automatische Metadatenbereitstellung
- Vermeidung von Doppelerfassung
- Externe Verknüpfungen (Genbank/NASC)
- Suchmaschinentechnologie

Ausgangspunkt:

„Vergessen Sie den Begriff *Repository*“

Fazit:

Entscheidend sind die **Services!**

COAR Interoperability Project

- Phase 1: The Case for Interoperability for Open Access Repositories
- Phase 2: Open Discussion
- Phase 3: The Current State of Open Access Repository Interoperability (2012)
- Phase 4: **COAR Roadmap for Future Directions for Repositories Interoperability**

Entwurf Interoperability Roadmap

- Current Situation and Strategic Challenges
- Vision, Goal, Objectives
- Users and Stakeholders Needs
 - Scientists (author, reader)
 - Institution
 - Funder organizations
 - Publishers, information companies
- The Repository Landscape
- Interoperability Issues
- The Road Map

Ziele

- Identifizieren der Nutzer-Wünsche und der Arbeitsabläufe
- Identifizieren der Interessen der weiteren Beteiligten (Institutionen, Förderorganisationen, Verlage, Informationsanbieter ...)
- Ermittlung der erforderlichen Schnittstellen-Technologie
- Definition einer Prioritätenliste der Aktionsfelder

Interoperability issues and use cases

- Visibility (google metrics, webometrics, statistics)
- Data issues (Formats, quality, enhanced publications, linked data, research data)
- Sustainability (services, documents)
- Add-on services and features (embedding, publication lists, export, bibliometrics)
- Technical basics (architecture, protocols)

Links und Schluß

- Research Data Alliance: rd-alliance.org
- Force11: www.force11.org
- COAR: www.coar-repositories.org
- OpenAIRE: www.openaire.eu
- Nature Special:
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