

TOOLS FÜR DAS MANAGEMENT VON FORSCHUNGSDATEN

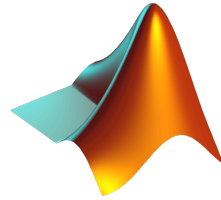
Workshop „Wege in die Köpfe“ des DFG-Projekts „EWIG -
Entwicklung von Workflowkomponenten für die
Langzeitarchivierung von Forschungsdaten in den
Geowissenschaften“

Berlin, 03.07.2014

Heinz Pampel, Deutsches GeoForschungsZentrum GFZ

TOOLS – EINE AUSWAHL

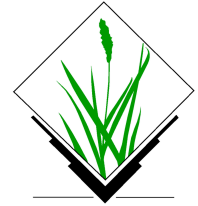
Tools zur Analyse
von
Forschungsdaten



MATLAB



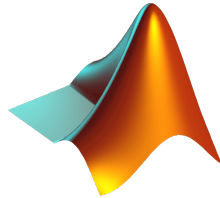
R-Pakete



GRASS GIS

TOOLS – EINE AUSWAHL

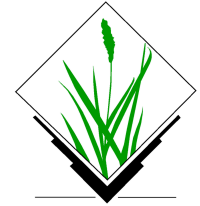
Tools zur Analyse
von
Forschungsdaten



MATLAB



R-Pakete



GRASS GIS

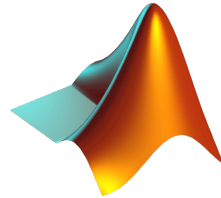
Tools zum
Austausch von
„Daten“



FileZilla

TOOLS – EINE AUSWAHL

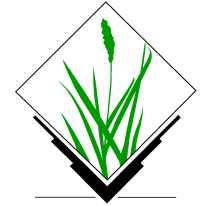
Tools zur Analyse
von
Forschungsdaten



MATLAB



R-Pakete



GRASS GIS

Tools zum
Austausch von
„Daten“



FileZilla

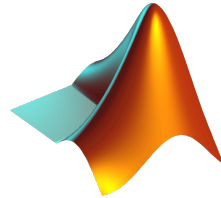
Tools zum
Management von
Forschungsdaten



LabArchives

TOOLS – EINE AUSWAHL

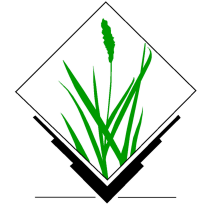
Tools zur Analyse
von
Forschungsdaten



MATLAB



R-Pakete



GRASS GIS

Tools zum
Austausch von
„Daten“



FileZilla

Tools zum
Management von
Forschungsdaten



LabArchives

Tools zur
dauerhaften
Zugänglichkeit von
Forschungsdaten



TOOLS – EINE AUSWAHL



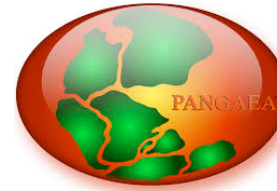
Projects

GFZ

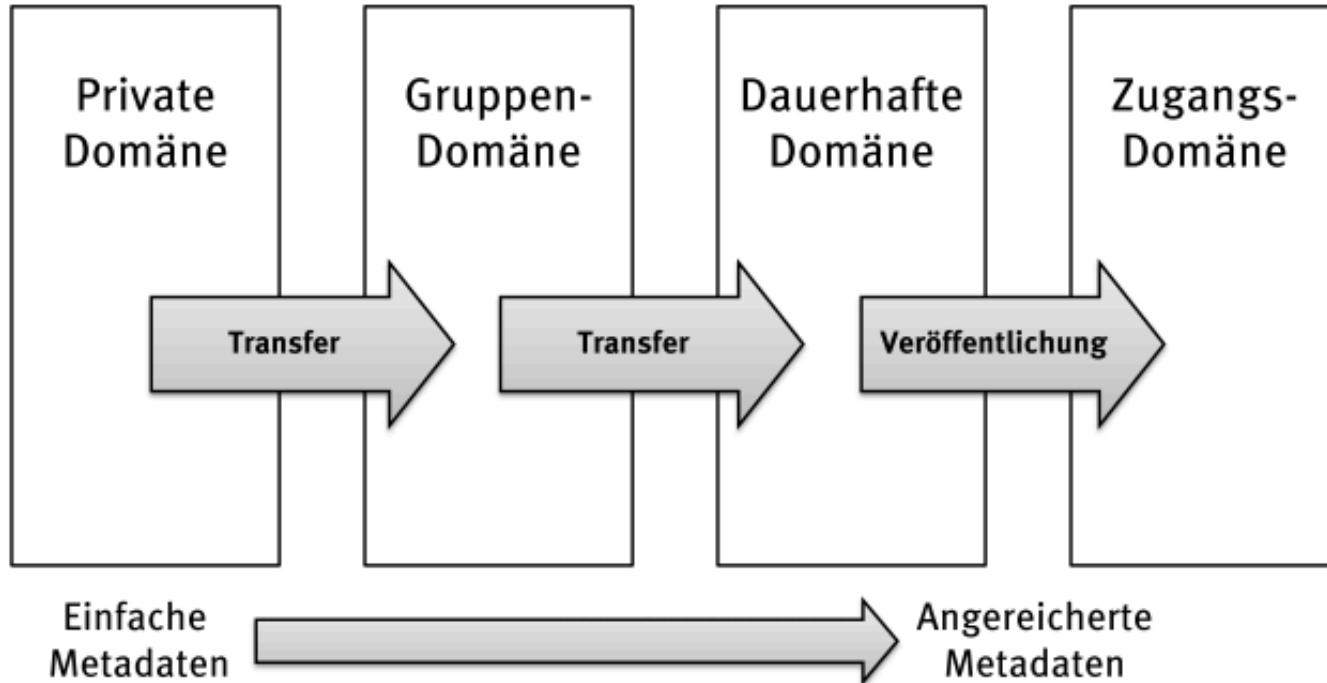
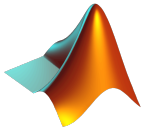
Helmholtz Centre
POTSDAM



labfolder

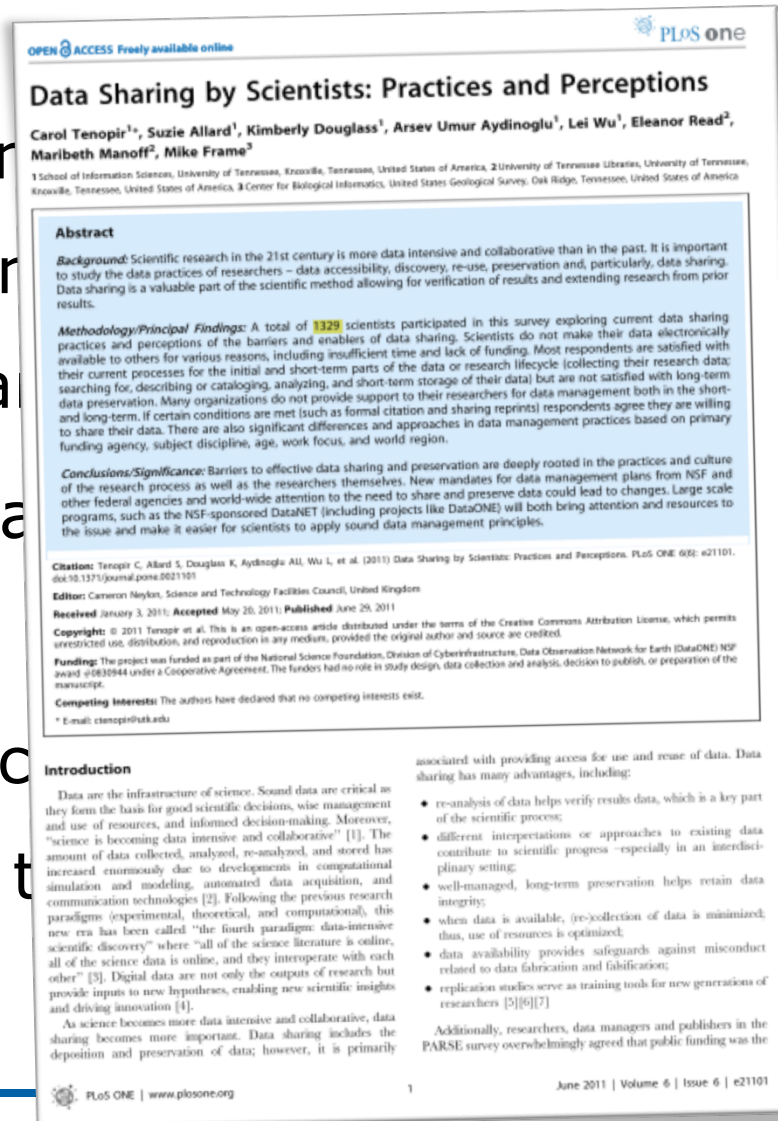


zenodo



INFRASTRUKTUR ALS ANREIZ

- „Building a source for data sharing, preservation, and reuse is in some ways easier than building a source for data sharing, preservation, and reuse.”
- „The leading reason for not sharing data is time and lack of funding.”
- „These are difficult barriers that make it difficult to share data. Infrastructure may help.”



Tenopir, C. et al. (2011). Data Sharing by Scientists: Practices and Perceptions. PLoS ONE, 6(6), e21101. doi:10.1371/journal.pone.0021101

INFRASTRUKTUR ALS ANREIZ

- „Building a sound infrastructure for data sharing, preservation, and use is a challenge, but is in some ways easier than changing a culture.“
- „The leading reasons were insufficient time and lack of funding.“
- „These are difficult to solve, but systems that make it quick and easy to share data without cost may help.“

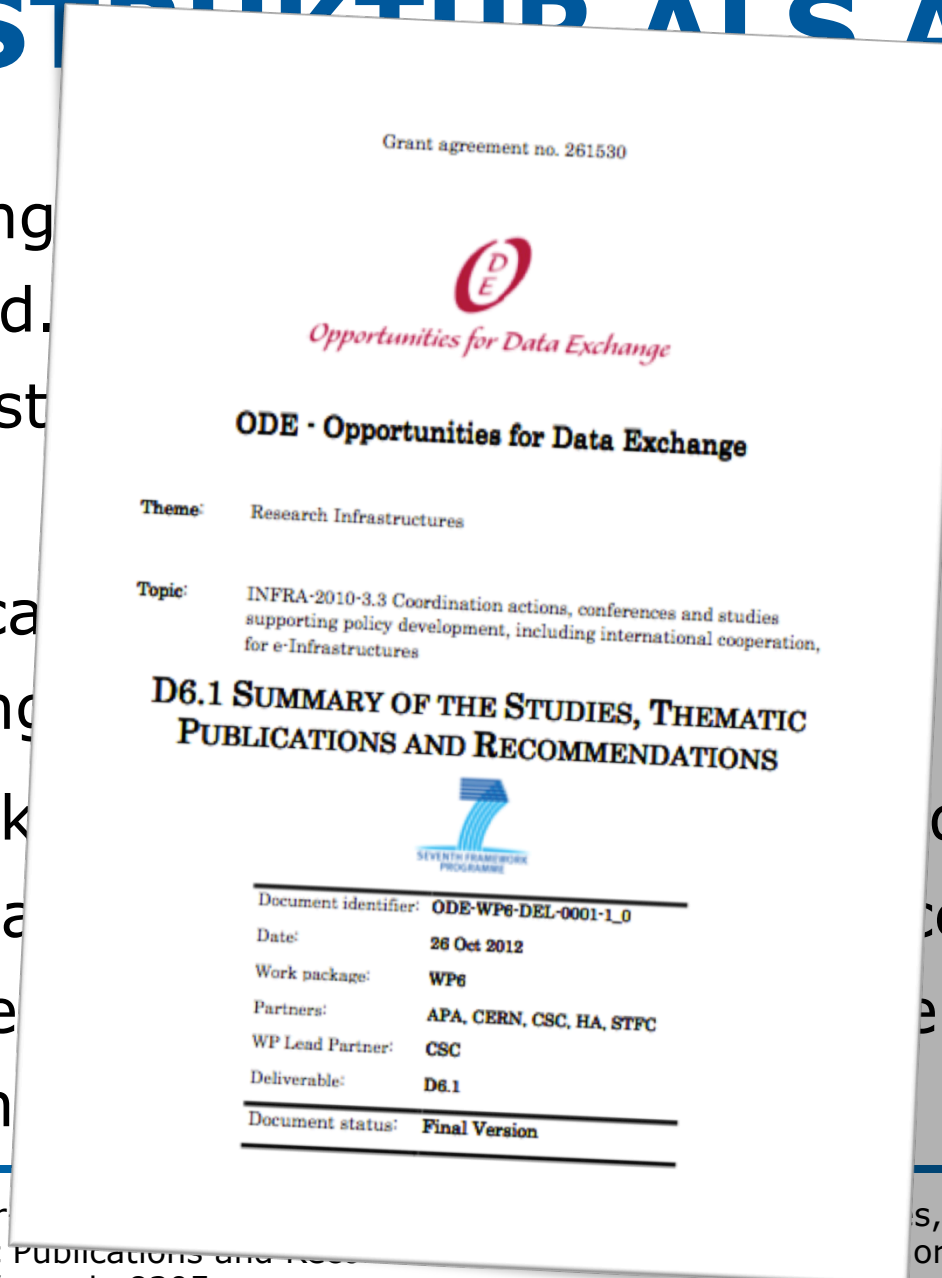
INFRASTRUCTURE AS AN REIZ

- „A key finding be developed. incentive system schemes.“
- „The technical by simplifying
- „Several stakeholders to funders have address research and make th

aring have to the academic assessment

to be reduced

data centres
cess to
e their data



INFRASTRUKTUR ALS ANREIZ

- „A key finding is that incentives for data sharing have to be developed. These have to be linked to the academic incentive system as well as to the research assessment schemes.“
- „The technical barriers to share data have to be reduced by simplifying data sharing workflows.“
- „Several stakeholders, from publishers or data centres to funders have to be involved in this process to address researchers' hesitation to manage their data and make them available.“

RAHMENBEDINGUNGEN

Investigators are expected to share their data!



funders

Underlying data must be accessible!



journals



research data
repositories

Where can I store my data?



scientists

Where can I find data?



Should we offer repositories for all disciplines?



universities and
research labs

RAHMENBEDINGUNGEN

Investigators are expected to share their data!



funders

Underlying data must be accessible!



journals



Where can I store my data?



scientists

research data
repositories

Where can I find data?



Should we offer repositories for all disciplines?



universities and
research labs

RAHMENBEDINGUNGEN

- Data Policies von Förderorganisationen
 - Europäische Kommission: HORIZON 2020

29.3 Open access to research data

[OPTION for actions participating in the open Research Data Pilot: Regarding the digital research data generated in the action ('data'), the beneficiaries must:

- (a) deposit in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user — the following:*
 - (i) the data, including associated metadata, needed to validate the results presented in scientific publications as soon as possible;*
 - (ii) other data, including associated metadata, as specified and within the deadlines laid down in the 'data management plan' (see Annex I);*
- (b) provide information — via the repository — about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (and — where possible — provide the tools and instruments themselves).*



Data management in Horizon 2020

- Data Management Plans (DMPs) mandatory for all projects participating in the pilot (deliverable within the first six months)
- Other projects invited to submit a DMP if relevant for their planned research
- DMP questions:
 - What data will be collected / generated?
 - What standards will be used / how will metadata be generated?
 - What data will be exploited? What data will be shared/made open?
 - How will data be curated and preserved?

29.3

[OP
gen

data

cess,

ntific

wn in

f the
s and


RAHMENBEDINGUNGEN

- Data Policies von Journals
 - Beispiel PLOS ONE

Data Availability

PLOS journals require authors to make all data underlying the findings described in their manuscript fully available, without restriction and from the time of publication, with only rare exceptions to address legal and ethical concerns (see the [PLOS Data Policy](#) and [FAQ](#) for further details). When submitting a manuscript, authors must provide a Data Availability Statement that describes where the data underlying their manuscript can be found.

Your answers to the following constitute your statement about data availability and will be included with the article in the event of publication. **Please note that simply stating 'data available on request from the author' is not acceptable. If, however, your data are only available upon request from the author(s), you must answer "No" to the first question below, and explain your exceptional situation in the text box provided.**



Do the authors confirm that all data underlying the findings described in their manuscript are fully available without restriction?

Answer
Required:

Please select a response

Please select a response

Yes – all data are fully available without restriction

No – some restrictions will apply

Please select a response.

Please describe where your data may be found, writing in full sentences. **Your answers should be entered into the box below and will be published in the form you provide them, if your manuscript is accepted.** If you are copying our sample text below, please ensure you replace any instances of **XXX** with the appropriate details.

Verlagsplattform

Öffentliches
Repositorium

Sonstiges

- If your data are all contained within the paper and/or Supporting Information files, please state this in your answer below. For example, "All relevant data are within the paper and its Supporting Information files."
- If your data are held or will be held in a public repository, include URLs, accession numbers or DOIs. For example, "All **XXX** files are available from the **XXX** database (accession number(s) **XXX**, **XXX**).". If this information will only be available after acceptance, please indicate this by ticking the box below.
- If neither of these applies but you are able to provide details of access elsewhere, with or without limitations, please do so in the box below. For example:

"Data are available from the **XXX** Institutional Data Access / Ethics Committee for researchers who meet the criteria for access to confidential data."

"Data are from the **XXX** study whose authors may be contacted at **XXX**."

* typeset

Answer
Required:

Character Count: 0

Limit
20000
characters

re3data.org

The screenshot shows the re3data.org website. At the top is the logo "re3data.org" with the tagline "REGISTRY OF RESEARCH DATA REPOSITORIES". Below the logo is a navigation bar with links: Home, Search, Browse, Suggest, FAQ, About, Schema, Contact, Imprint. The main section is titled "Search for Repositories (676 Reviewed Repositories)". It features a search bar with a "Search" button. Below the search bar are three dropdown menus for "Subject", "Content Type", and "Country (of the responsible institutions)". There are also checkboxes for "Certificates", "Open Access", "Persistent Identifier", and "Include Repositories not yet reviewed by re3data.org". A "Clear" button is at the bottom right of the filters. Below the filters, it shows "676 results (1 - 25)" with a pagination bar. The first result is for "3TU.Datacentrum" (3TU.DC). It includes a list of subjects (Engineering Sciences, Natural Sciences), content types (Archived data, Audiovisual data, Images, Plain text, Raw data, Scientific and statistical data formats, Standard office documents, Structured text), and countries (Netherlands). A description of 3TU.Datacentrum is provided, stating it is an archive for research data. At the bottom, there is a link to "ALLBUS" (Allgemeine Bevölkerungsumfrage der Sozialwissenschaften).

- Projektpartner:
 - Deutsches GeoForschungsZentrum GFZ, Bibliothek und Informationsdienste (LIS)
 - Humboldt-Universität zu Berlin, Institut für Bibliotheks- und Informationswissenschaft (IBI)
 - Instituts für Technologie (KIT), KIT-Bibliothek
- Förderorganisation:
 - Deutsche Forschungsgemeinschaft
 - Phase 1: 2013-2014
 - Phase 2: 2014-2015
- Diverse Kooperationspartner

re3data.org

- Aufbau eines Verzeichnisses zur Beschreibung von Forschungsdaten-Repositories
- Unterstützung für Forschende, Förderorganisationen und Einrichtungen der Informationsinfrastruktur
- Beitrag zur Weiterentwicklung der Forschungsdaten-Repositories (Standardisierung und Professionalisierung)
- Nationaler Beitrag zur weltweiten Diskussion über die Schaffung von offenen Forschungsdaten-Infrastrukturen

re3data.org

- Version 1.0 (2012)
 - Resultat einer Bestandsaufnahme
 - <http://doi.org/10.2312/re3.001>
- Version 2.0 (2012)
 - Ergebnis einer öffentlichen Konsultation
 - <http://doi.org/10.2312/re3.002>
 - <http://www.re3data.org/schema/2-0/>
- Version 2.1 (2013)
 - Zusammenarbeit mit Kooperationspartnern
 - <http://doi.org/10.2312/re3.004>
 - <http://www.re3data.org/schema/2-1/>
- Neue Version in Arbeit (2014)



Vierkant, P., et al. (2013). Schema for the Description of Research Data Repositories. Version 2.1. doi:10.2312/re3.004

Search for Repositories (676 Reviewed Repositories)

geosciences

Search

Subject

Add subjects

Content Type

Add content types

Country (of the responsible institutions)

Add countries

Germany

☐ Certificates

☐ Open Access

☐ Persistent Identifier

☒ Include Repositories not yet reviewed by re3data.org

Clear

34 results (filtered) (1 - 25)

« 1 2 »

PANGAEA

Publishing Network for Geoscientific and Environmental Data



Subjects: Atmospheric Science and Oceanography Biology Geochemistry, Mineralogy and Crystallography Geochemistry, Mineralogy and Crystallography
Geology and Palaeontology Geology and Palaeontology Geophysics Geophysics and Geodesy Geosciences (including Geography)
Life Sciences Natural Sciences Oceanography

Content types: Archived data Audiovisual data Images Plain text Standard office documents

Countries: Germany

The information system PANGAEA is operated as an Open Access library aimed at archiving, publishing and distributing georeferenced data from earth system research. The system guarantees long-term availability of its content through a commitment of the operating institutions.

simple
search box

filters

results


icons


[← Back to results](#)
General[Institutions](#)[Terms](#)[Standards](#)**General information**

Name of repository	PANGAEA
Additional name	Publishing Network for Geoscientific and Environmental Data
Repository URL	http://www.pangaea.de
Subjects	Q Atmospheric Science and Oceanography Q Biology Q Geochemistry, Mineralogy and Crystallography Q Geochemistry, Mineralogy and Crystallography Q Geology and Palaeontology Q Geology and Palaeontology Q Geophysics Q Geophysics and Geodesy Q Geosciences (including Geography) Q Life Sciences Q Natural Sciences Q Oceanography
Description	The information system PANGAEA is operated as an Open Access library aimed at archiving, publishing and distributing georeferenced data from earth system research. The system guarantees long-term availability of its content through a commitment of the operating institutions.
Content types	Q Archived data Q Audiovisual data Q Images Q Plain text Q Standard office documents
Keywords	Q Earth Science Q Environmental Science
Repository type	disciplinary
Research data repository language(s)	eng
Data and/or service provider	dataProvider

[← Back to results](#)
[✎ Text Edit](#)
[🖱 GUI Edit](#)

[← Back to results](#)[General](#)[Institutions](#)[Terms](#)[Standards](#)**Responsible institutions (2)**

Institution name	Alfred Wegener Institute for Polar and Marine Research
Additional name	AWI Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung
URL	http://www.awi.de/en/home/
Contact	hgrobe@pangaea.de
Country	 Germany
Type(s) of responsibility	general technical
Type of institution	non-profit

Institution name	Center for Marine Environmental Sciences (MARUM)
URL	http://www.marum.de/
Contact	mdiepenbroek@pangaea.de
Country	 Germany
Type(s) of responsibility	general
Type of institution	non-profit

[← Back to results](#)[✎ Text Edit](#)[🖱 GUI Edit](#)

[← Back to results](#)[General](#)[Institutions](#)[Terms](#)[Standards](#)**Terms** (1)

Policy name	Data policy of the information system PANGAEA
URL	http://www.pangaea.de/curator/files/pangaea-data-policy.pdf

Legal aspects

Database access

Type of access to research data repository	open
--------------------------------------------	------

Data access

Type of access to data	open
------------------------	------

Data licences (1)

License name	CC
License URL	http://wiki.pangaea.de/wiki/License

Data upload

Type of data upload	restricted
Data upload restriction type	registration
Data upload license name	Data Submission
Data license URL	http://wiki.pangaea.de/wiki/Data_submission

[← Back to results](#)[✎ Text Edit](#)[🖱 GUI Edit](#)

[← Back to results](#)[General](#)[Institutions](#)[Terms](#)[Standards](#)

Standards

Name of the repository software	other
Versioning	yes
Persistent Identifier system	DOI
Data citation guideline	http://wiki.pangaea.de/wiki/Citation
Quality management	yes
Certificates and Standards	WDS

Application programming interfaces ⁽¹⁾

API type	OAI-PMH
URL	http://ws.pangaea.de/oai/

Alerting services ⁽¹⁾

Type of alerting service	RSS
Alerting service	http://www.pangaea.de/tools/latest-datasets.rss

Remarks

Remarks	Data of World Data Center for Marine Environmental Sciences (WDC-MARE) are available via the data library PANGAEA which will be operated as a member of the new WDS (World Data System)
Entry date	2012-07-16
Last update	2014-04-14

[← Back to results](#)[✎ Text Edit](#)[👁 GUI Edit](#)

re3data.org

Possible values for each icon

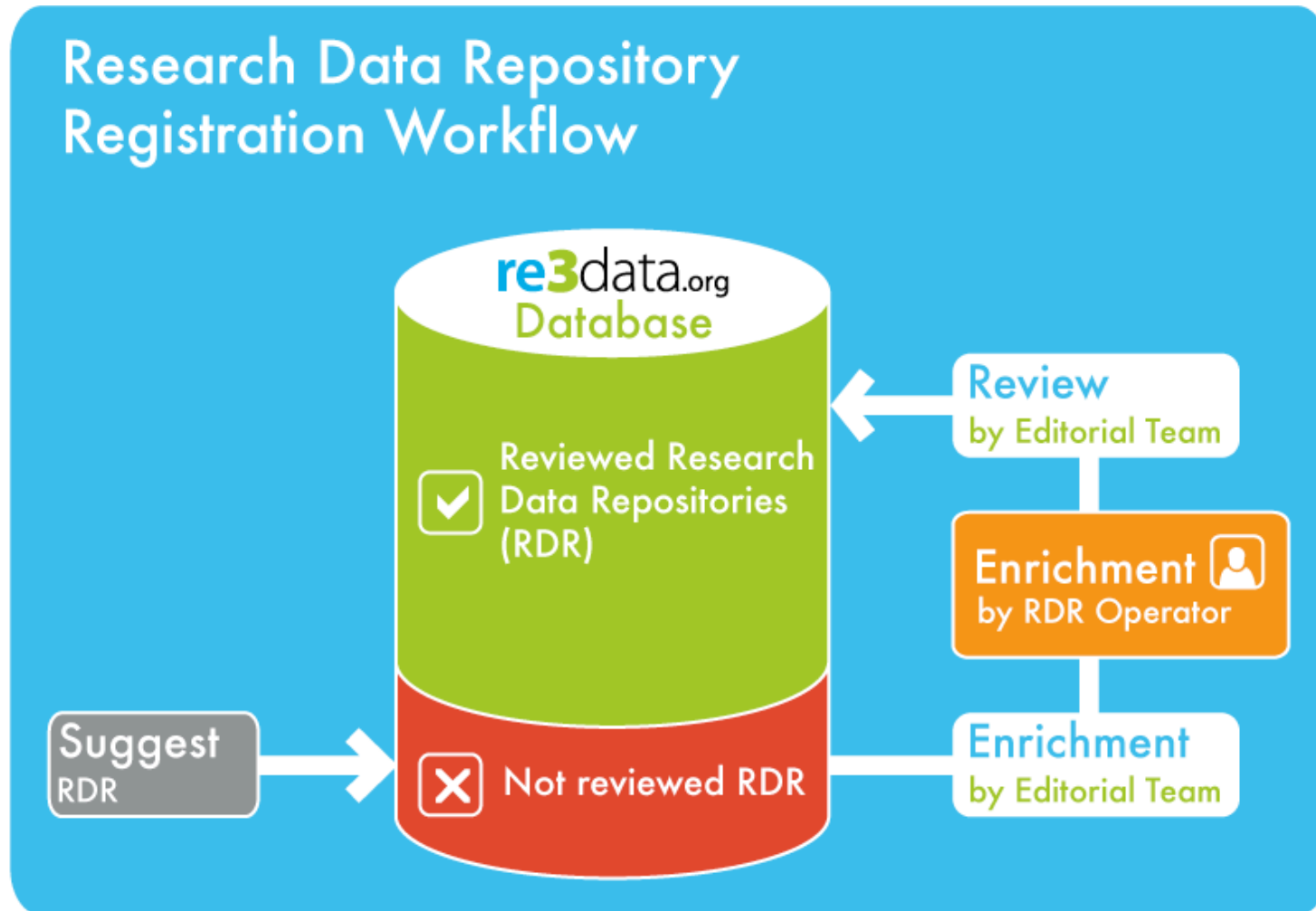
Information	Access	Licenses	Persistent Identifier	Certificates and Standards	Policy	Reviewed

- Requirements

- be run by a legal entity, such as a sustainable institution (e.g. library, university)
- clarify access conditions to the data and repository as well as the terms of use
- have an English graphical user interface (GUI)
- have focus on research data

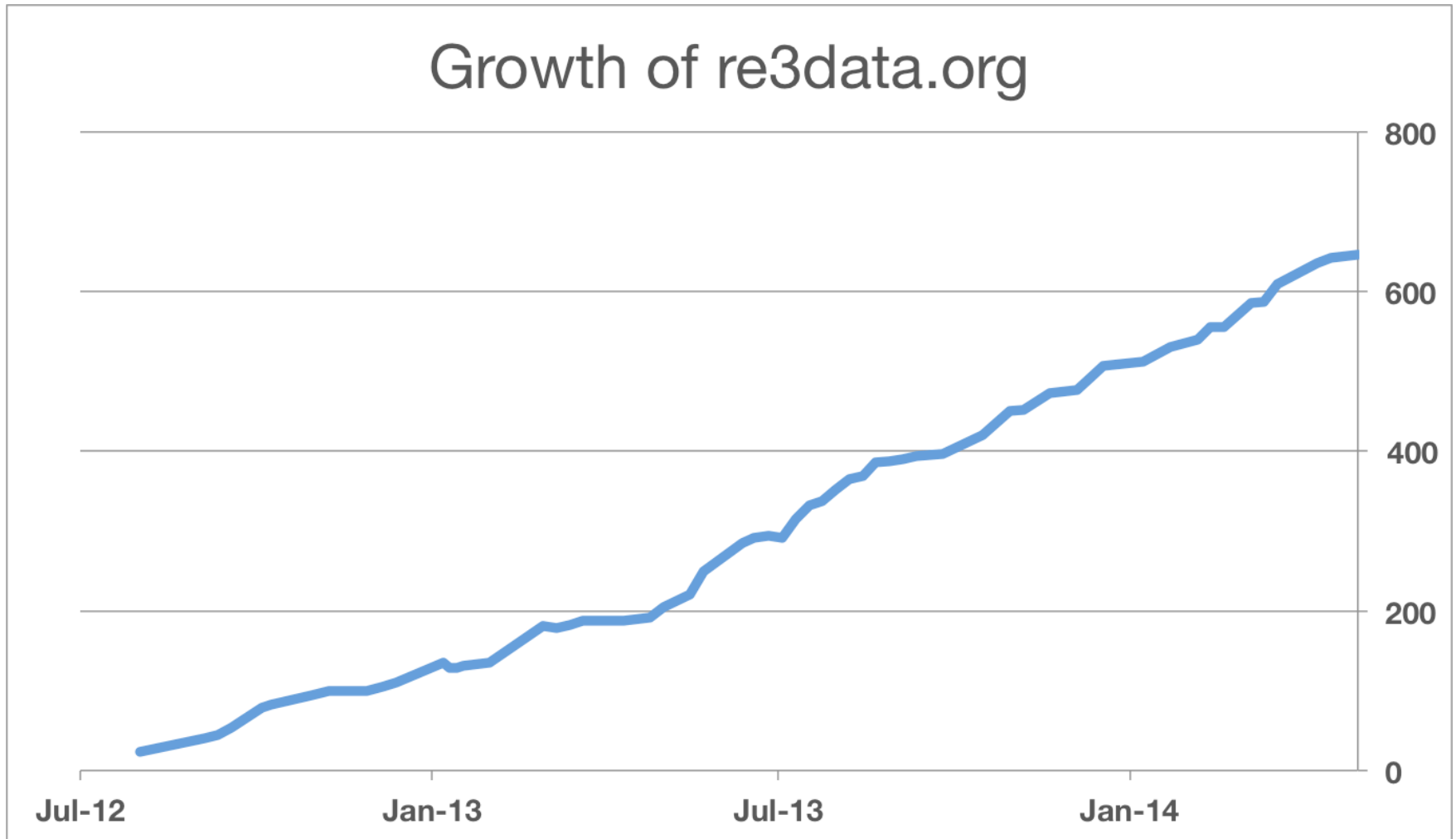
re3data.org

Research Data Repository Registration Workflow



re3data.org

Growth of re3data.org



re3data.org

- Kooperationen: Verlage

The image displays three overlapping website interfaces, illustrating collaborations with publishers:

- Copernicus Publications:** The top interface features the tagline "The Innovative Open Access Publisher" and the Copernicus logo. It includes a navigation menu with "Home", "Objectives", and "Services". A "Data Policy" section is visible, stating: "Copernicus Publications recommends depositing data that correspond to journal articles in reliable data repositories." The re3data.org logo is also present.
- Scientific Data:** The middle interface has a dark blue header with the title "SCIENTIFIC DATA". It includes a navigation menu with "Home", "About", "For Authors", "For Referees", "Advisory and Editorial Board", "Open Access", and "FAQ". A section titled "Data deposition policies" is shown, stating: "Scientific Data publishes descriptions of scientifically valuable datasets, and requires that authors make described datasets available to editors and referees at the time of submission of these datasets with the scientific community as a condition of publication." It also mentions that Scientific Data will provide a searchable publication platform and encourages submission to community-recognized data repositories like figshare or Data Dryad.
- SpringerPlus:** The bottom interface features the SpringerPlus logo and the text "a SpringerOpen Journal". It includes a search bar with "SpringerPlus" entered and a "Submit for FREE now" button. A "Policies & Procedures" section is highlighted in blue, stating: "Open, ethical, and adherence to discipline-specific best practices." The footer includes a link to the "Open Access Copyright Policy".

re3data.org

- Kooperationen: Verlage

The screenshot displays the re3data.org website. At the top, the Copernicus Publications logo is visible with the tagline 'The Innovative Open Access Publisher'. Below the header, a section titled 'Environmental & geoscience' lists several data repositories. Each repository entry includes the repository name and a link to 'view re3data entry'. The repositories listed are: National Climatic Data Center (NCDC), Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC), Cold and Arid Regions Science Data Center (Lanzhou, China) (CARD), NERC Data Centres, LTER Community Data Repository, and PANGAEA. On the left side of the screenshot, a sidebar contains navigation links such as 'Home', 'Objectives', and 'Scientific Data'. Below the repository list, a blue banner contains the text 'Open, ethical, and adherence to discipline-specific best practices.'.

Environmental & geoscience	
National Climatic Data Center (NCDC)	view re3data entry
Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC)	view re3data entry
Cold and Arid Regions Science Data Center (Lanzhou, China) (CARD)	view re3data entry
NERC Data Centres	
LTER Community Data Repository	view re3data entry
PANGAEA	view re3data entry

Open, ethical, and adherence to discipline-specific best practices.

re3data.org

- Kooperationen: Förderorganisationen



1) **Step 1:** participating projects are required to deposit the research data described above, preferably into a research data repository. 'Research data repositories' are online archives for research data. They can be subject-based/thematic, institutional or centralised. Useful listings of research data repositories include the Registry of Research Data Repositories (www.re3data.org) and Databib (<http://databib.org>). In addition, it is expected that the Open Access Infrastructure for Research in Europe (OpenAIRE) will become an entry point for linking publications to underlying research data.

2) **Step 2:** as far as possible, projects must then take measures to enable for third parties to access, mine, exploit, reproduce and disseminate (free of charge for any user) this research data. One straightforward and effective way of doing this is to attach Creative Commons Licence (CC-BY or CC0 tool) to the data deposited (<http://creativecommons.org/licenses/>, <http://creativecommons.org/about/cc0>).

European Commission. (2013). Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020. Retrieved from http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf

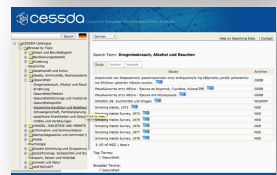
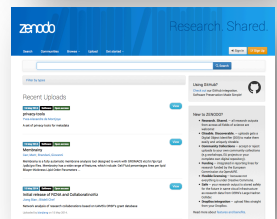
DEFINITION

- Spannungsfeld: Anspruch – Wirklichkeit
 - „Research Data Infrastructures can be defined as managed networked environments for digital research data consisting of services and tools that support: (i) the whole research cycle, (ii) the movement of research data across scientific disciplines, (iii) the creation of open linked data spaces by connecting data sets from diverse disciplines, (iv) the management of scientific workflows, (v) the interoperation between research data and literature and (vi) an integrated Science Policy Framework.“

GRDI2020. (2012). GRDI2020 Final Roadmap Report. Global Research Data Infrastructures: The Big Data Challenges. Retrieved from <http://www.grdi2020.eu/Repository/FileScaricati/e2b03611-e58f-4242-946a-5b21f17d2947.pdf>

TYPOLOGIE

- Disziplinäre Forschungsdaten-Repositoryn
- Institutionelle Forschungsdaten-Repositoryn
- Projektspezifische Forschungsdaten-Repositoryn
- Multidisziplinäre Forschungsdaten-Repositoryn
- Portale, die verteilte Datensammlungen zugänglich machen



HERAUSFORDERUNGEN

- „The three main challenges in developing an ecosystem of data repositories are (1) gaps in the present data infrastructure and (2) **connectivity issues** (between the workflow of researchers and the institutional data infrastructure and between institutional and national data infrastructures) and (3) long-term financial basis.“





HERAUSFORDERUNGEN

- „Research data infrastructures must provide some network-enabled **“support services”** in order to achieve the conditions needed to facilitate effective collaboration among spatially and institutionally separated communities of research.“ (GRDI2020, 2012)

AKZEPTANZ

- u. a. Abhängig von:
 - „connectivity issues“ – Integration in den wissenschaftlichen Arbeitsablauf
 - „support services“ – Unterstützung und Mehrwert

BEISPIEL: DRYAD



About ▾ For researchers ▾ For organizations ▾ Contact us Profil: Heinz Pampel ▾

Submit new content

Submitting data to Dryad consists of three simple steps:

- 1. Describe your publication
- 2. Upload and describe your data files
- 3. Approve data for publication


Select Your Article Status

All data in Dryad must be associated with an article or other publication. Please select the status of your article.

☐ Published





☐ Accepted

☐ In review

☐ I understand that by submitting data to Dryad, I am agreeing to release it under the terms of the [Creative Commons Zero \(CC0\)](#) waiver. All authors of the data have agreed to the terms of this waiver. [Why does Dryad require CC0?](#) 

[Weiter >](#)

BEISPIEL: DRYAD



About ▾ For researchers ▾ For organizations ▾ Contact us Profil: Heinz Pampel ▾

Submit new content

Submitting data to Dryad consists of three simple steps:

- 1. Describe your publication
- 2. Upload and describe your data files
- 3. Approve data for publication

Select Your Article Status


All data in Dryad must be associated with an article or other publication. Please select the status of your article.

☒ Published
☐ Accepted
☐ In review

Enter article DOI or PubMed ID:

OR

☐ This article has been published in the journal I will name, but I do not know the DOI or PubMedID for it.

☒ I understand that by submitting data to Dryad, I am agreeing to release it under the terms of the [Creative Commons Zero \(CC0\)](#) waiver. All authors of the data have agreed to the terms of this waiver. [Why does Dryad require CC0?](#) 

Weiter >

BEISPIEL: PANGAEA

ScienceDirect
Journals | Books
Sign in | Help
Brought to you by:
BIBLIOTHEK DES
WISSENSCHAFTSPARKS ALBERT

Export
Search ScienceDirect
Advanced search

Article outline

☐ Show full outline

- Abstract
- Keywords
- 1. Introduction
- 2. Oceanography
- 3. Materials and methods
- 4. Results
- 5. Discussion
- 6. Conclusions
- Acknowledgements
- References

Figures and tables

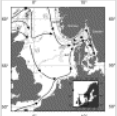


Table 1

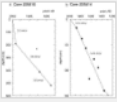
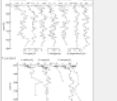



Table 2










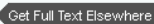
Marine Micropaleontology


Volume 66, Issues 3–4, 20 February 2008, Pages 192–207


Organic matter rain rates, oxygen availability, and vital effects from benthic foraminiferal $\delta^{13}\text{C}$ in the historic Skagerrak, North Sea

Sylvia Brückner  , Andreas Mackensen  

Choose an option to locate/access this article:

 Show more

DOI: 10.1016/j.marmicro.2007.09.002  Get rights and content

Abstract

The sediment cores 225514 and 225510 were recovered from 420 and 285 m water depth, respectively. They were investigated for their benthic foraminiferal $\delta^{13}\text{C}$ during the last 500 years. Both cores were recovered from the southern flank of the Skagerrak. The $\delta^{13}\text{C}$ values of *Uvigerina mediterranea* and other shallow infaunal species in both cores indicate that organic matter rain rates to the seafloor varied around a mean value until approximately AD 1950 after which they increased. This increase might result from changes in the North Atlantic Current System and a co-occurring persistently high North Atlantic Oscillation index state in the 1980s to 1990s, rather than from anthropogenic eutrophication. Using $\delta^{13}\text{C}$ mean values of multiple species, we reconstruct $\delta^{13}\text{C}$ gradients of dissolved inorganic carbon (DIC) within pore waters for the time periods AD 1500 to 1950 and AD 1950 to 2000. The calculated $\delta^{13}\text{C}_{\text{DIC}}$ ranges, interpreted as indicating total organic matter remineralization due to respiration, are generally bigger in Core 225514 than in Core 225510. Since mean $\delta^{13}\text{C}$ values of *U. mediterranea* suggest that organic matter rain rates were

Recommended articles

Environmental and biological effects on the stable...
2004, Marine Micropaleontology [more](#)


Last Glacial Maximum paleoproductivity and wate...
2008, Marine Micropaleontology [more](#)

Centennial-scale climate variability in the Timor S...
2008, Marine Micropaleontology [more](#)

[View more articles »](#)


Citing articles (4)

Related book content



PANGAEA® – Related Data

Stable carbon isotope composition of benthic foraminifera from sediments of the Skagerrak, North Sea



Map | Satellite

Google

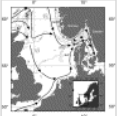
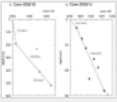
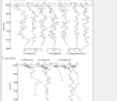

Map Data | 2000 km | Terms of Use


BEISPIEL: PANGAEA


ScienceDirect Journals | Books Sign in | Help Brought to you by: BIBLIOTHEK DES WISSENSCHAFTSPARKS ALBERT




Export Search ScienceDirect Advanced search


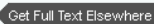
Article outline ☐ Show full outline
Abstract
Keywords
1. Introduction
2. Oceanography
3. Materials and methods
4. Results
5. Discussion
6. Conclusions
Acknowledgements
References



Figures and tables

Table 1

Table 2



**Marine Micropaleontology**
Volume 66, Issues 3–4, 20 February 2008, Pages 192–207



Organic matter rain rates, oxygen availability, and vital effects from benthic foraminiferal $\delta^{13}\text{C}$ in the historic Skagerrak, North Sea
Sylvia Brückner  , Andreas Mackensen  

Choose an option to locate/access this article:




 Show more  Get rights and content
DOI: 10.1016/j.marmicro.2007.09.002

Abstract
The sediment cores 225514 and 225510 were recovered from 420 and 285 m water depth, respectively. They were investigated for their benthic foraminiferal $\delta^{13}\text{C}$ during the last 500 years. Both cores were recovered from the southern flank of the Skagerrak. The $\delta^{13}\text{C}$ values of *Uvigerina mediterranea* and other shallow infaunal species in both cores indicate that organic matter rain rates to the seafloor varied around a mean value until approximately AD 1950 after which they increased. This increase might result from changes in the North Atlantic Current System and a co-occurring persistently high North Atlantic Oscillation index state in the 1980s to 1990s, rather than from anthropogenic eutrophication. Using $\delta^{13}\text{C}$ mean values of multiple species, we reconstruct $\delta^{13}\text{C}$ gradients of dissolved inorganic carbon (DIC) within pore waters for the time periods AD 1500 to 1950 and AD 1950 to 2000. The calculated $\delta^{13}\text{C}_{\text{DIC}}$ ranges, interpreted as indicating total organic matter remineralization due to respiration, are generally bigger in Core 225514 than in Core 225510. Since mean $\delta^{13}\text{C}$ values of *U. mediterranea* suggest that organic matter rain rates were

Recommended articles
Environmental and biological effects on the stable...
2004, Marine Micropaleontology [more](#)
Last Glacial Maximum paleoproductivity and wate...
2008, Marine Micropaleontology [more](#)
Centennial-scale climate variability in the Timor S...
2008, Marine Micropaleontology [more](#)
[View more articles »](#)

Citing articles (4)

Related book content

**PANGAEA® – Related Data**
Stable carbon isotope composition of benthic foraminifera from sediments of the Skagerrak, North Sea

Map Satellite
Google
Map Data 2000 km Terms of Use

BEISPIEL: PANGAEA

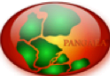
ScienceDirect
Journals | Books
Sign in | Help
Brought to you by:
BIBLIOTHEK DES
WISSENSCHAFTSPARKS ALBERT

Export
Search ScienceDirect
Advanced search

Article outline
☐ Show full outline

Marine Micropaleontology

Recommended articles
Environmental and biological effects on the stable...
Not logged in (log in or sign up)
aleoproductivity and wate...
variability in the Timor S...


PANGAEA®
Data Publisher for Earth & Environmental Science

Always quote citation when using data!

Data Description
Show Map Google Earth RIS BiTeX

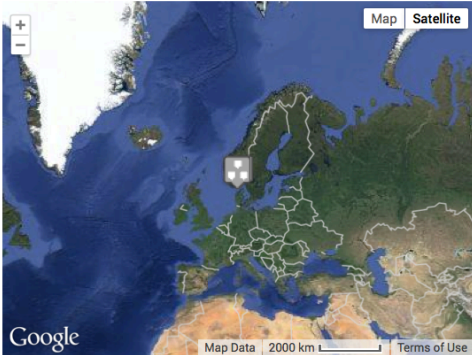
Citation: Brückner, S; Mackensen, A (2008): Stable carbon isotope composition of benthic foraminifera from sediments of the Skagerrak, North Sea.
doi:10.1594/PANGAEA.676719,
Supplement to: Brückner, Sylvia; Mackensen, Andreas (2008): Organic matter rain rates, oxygen availability, and vital effects from benthic foraminiferal $\delta^{13}C$ in the historic Skagerrak, North Sea. *Marine Micropaleontology*, **66**(3-4), 192-207,
doi:10.1016/j.marmicro.2007.09.002

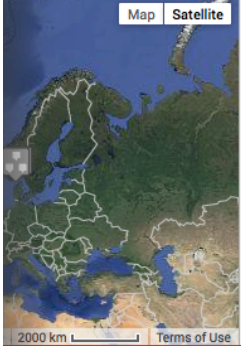
Abstract: The sediment cores 225514 and 225510 were recovered from 420 and 285 m water depth, respectively. They were investigated for their benthic foraminiferal $\delta^{13}C$ during the last 500 years. Both cores were recovered from the southern flank of the Skagerrak. The $\delta^{13}C$ values of *Uvigerina mediterranea* and other shallow infaunal species in both cores indicate that organic matter rain rates to the seafloor varied around a mean value until approximately AD 1950 after which they increased. This increase might result from changes in the North Atlantic Current System and a co-occurring persistently high North Atlantic Oscillation index state in the 1980s to 1990s, rather than from anthropogenic eutrophication. Using $\delta^{13}C$ mean values of multiple species, we reconstruct $\delta^{13}C$ gradients of dissolved inorganic carbon (DIC) within pore waters for the time periods AD 1500 to 1950 and AD 1950 to 2000. The calculated $\delta^{13}C$ ranges, interpreted as indicating total organic matter remineralization due to respiration, are generally bigger in Core 225514 than in Core 225510. Since mean $\delta^{13}C$ values of *U. mediterranea* suggest that organic matter rain rates were similar at both locations, differences in total organic matter remineralization are attributed to differing oxygen availability. However, oxygen concentrations in the overlying bottom water masses are not likely to have differed significantly. Thus, we suggest that organic matter remineralization was controlled by oxygen availability within the sediments, reflecting strong differences in sedimentation rates at the two investigated core sites. Based on the assumptions that tests of benthic foraminiferal species inhabiting the same microhabitat depth should show equal $\delta^{13}C$ values unless they are affected by vital effects and that *Globobulimina turgida* records pore water $\delta^{13}C$, we estimate microhabitat-corrected vital effects for several species with respect to *G. turgida*: >0.7 per mil for *Cassidulina laevigata*, >1.3 per mil for *Hyalinae balthica*, and >0.7 per mil for *Melonis barleeanus*. *Melonis zaandami* seems to closely record pore water $\delta^{13}C$.

Related to: Brückner, Sylvia (2008): Climatic and hydrographic variability in the late Holocene Skagerrak as deduced from benthic foraminiferal proxies (Klimatische und hydrographische Variabilität im holozänen Sagerrak, abgeleitet aus benthischen Foraminiferen). *Berichte zur Polar- und Meeresforschung = Reports on Polar and Marine Research*, **572**, 139 pp, hdl:10013/epic.28879


Project(s): Paleoenvironmental Reconstructions from Marine Sediments @ AWI (AWI_Paleo)

Coverage: Median Latitude: 57.961556 * Median Longitude: 9.256500 * South-bound Latitude: 57.840556 * West-bound Longitude: 8.709083 * North-bound Latitude: 58.042222 * East-bound Longitude: 9.621444





BEISPIEL: GFZ



GFZ
Helmholtz-Zentrum
POTS DAM

HELMHOLTZ-ZENTRUM POTSDAM
DEUTSCHES
GEOFORSCHUNGSZENTRUM

[Einloggen](#) | [Kontakt](#) | Deutsch ▾
 [Los](#) [Detailsuche](#) [Browse](#)
☐ Volltexte einbinden








START BASKET (0)

DATENSATZ AKTIONEN | EXPORT

Zum Basket hinzufügen

Datensatz ansehen

Datensatz

	Ansehen	Freigabegeschichte	Revisionen	Statistiken	Lokale Tags
	<div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="width: 80%;"> <p>Data of the active and passive seismic experiments on Bornholm in the framework of the GASH project (October 2010 and June 2012)</p> <p>Baumann-Wilke, M., Bauer, K., Stiller, M., Schovsbo, N. H. (2014): Data of the active and passive seismic experiments on Bornholm in the framework of the GASH project (October 2010 and June 2012), (Scientific Technical Report - Data GIPP Experiment- and Data Archive, 14/04), Potsdam, Deutsches GeoForschungsZentrum GFZ, 6 p., 10.2312/GFZ.b103-14046.</p> <p>Fulltext: str1404.pdf More: Supplementary Data, Supplementary Data</p> <p>Use DOI Citation Formatter by crossref.org Bookmark: http://gfzpublic.gfz-potsdam.de/pubman/item/escidoc:385603</p> </div> <div style="width: 15%; text-align: center;">  Freigegeben </div> </div>				
	<div style="display: flex; justify-content: space-between; align-items: center;">  ausblenden: alle </div>				
Basisdaten	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 30%;"> <p>Lesezeichen zu diesem Datensatz setzen</p> <p>Genre Bericht</p> <p> ausblenden: Basisdaten</p> </div> <div style="width: 60%;"> <p>http://gfzpublic.gfz-potsdam.de/pubman/item/escidoc:385603:7</p> </div> <div style="width: 10%; text-align: right;">  </div> </div>				
Dateien	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 20%; text-align: center;">  </div> <div style="width: 60%;"> <p>str1404.pdf (Verlagsversion), 837KB</p> <p> Öffnen  Speichern</p> </div> </div>				

BEISPIEL

GFZ
Helmholtz-Zentrum
POTSDAM

[Dataset Description](#) | [Search GFZ Datasets](#) | [Search KomFor Portal](#) | [Search DataCite](#)

Impressum
Helmholtz-Zentrum Potsdam
GFZ GERMAN RESEARCH CENTRE
FOR GEOSCIENCES



Cite as Maria Baumann-Wilke; Klaus Bauer; Manfred Stiller; Niels H. Schovsbo (2014): Data of the active and passive seismic experiments on Bornholm in the framework of the GASH project (October 2010 and June 2012). Deutsches Geoforschungszentrum GFZ. <http://dx.doi.org/10.5880/GIPP.201222.1>

Abstract SEG-Y data of the near surface active and passive seismic experiments on Bornholm, Denmark, with the aim of investigating the seismic properties of the Alum Shale black shale formation.

Supplement to <http://dx.doi.org/10.2312/GFZ.b103-14046>

IsSupplementedBy urn:nbn:de:kobv:b103-14046

Location Latitude: 55.0167 Longitude: 15

Keywords Solid Earth, Gas Shales in Europe, Geoscientific Information, Seismics, Alum Shale

Licence cc-by

Data The files are not available for internet download. Please fill in the form! You will be contacted to find an appropriate data transfer method.

Name*

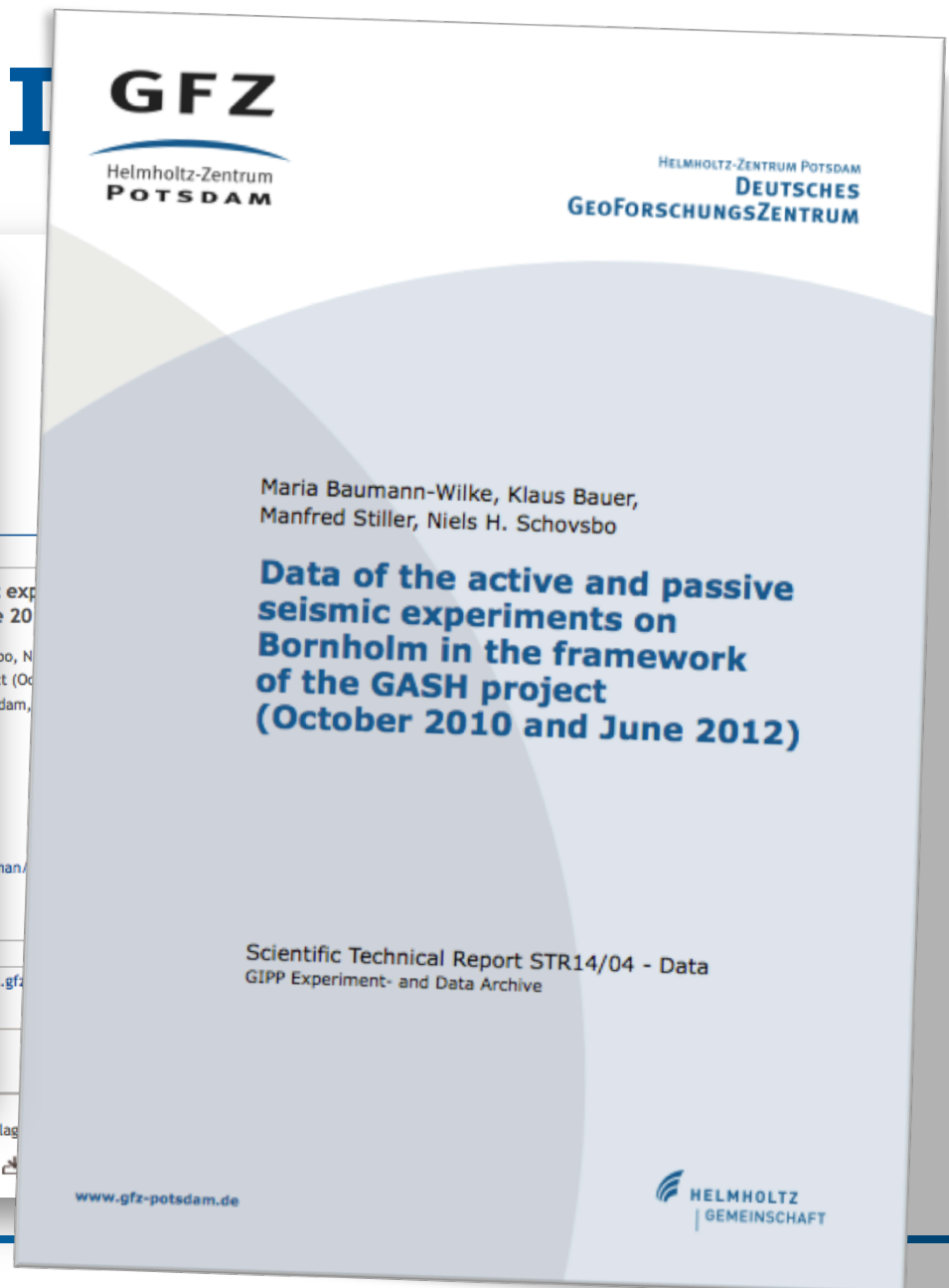
Address

Phone

eMail*


Comment

* - required



<http://dx.doi.org/10.2312/GFZ.b103-14046>


BEISPIEL: INSPIRE / HEP DATA



Welcome to [INSPIRE](#), the High Energy Physics information system. Please direct questions, comments or concerns to feedback@inspirehep.net.

HEP :: [HEPNAMES](#) :: [INSTITUTIONS](#) :: [CONFERENCES](#) :: [JOBS](#) :: [EXPERIMENTS](#) :: [JOURNALS](#) :: [HILFE](#)

InformationZitationen (4)Dateien



[Data from Figure 7 from: Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC](#) - ATLAS Collaboration (for the collaboration)

Zitiert von: 4 Datensätzen

(15) [On the presentation of the LHC Higgs Results](#) - Boudjema, F. *et al.* arXiv:1307.5865 [hep-ph]
(4) [A Novel Approach to Higgs Coupling Measurements](#) - Cranmer, Kyle *et al.* arXiv:1401.0080 [hep-ph]
(3) [Les Houches 2013: Physics at TeV Colliders: New Physics Working Group Report](#) - Brooijmans, G. *et al.* arXiv:1405.1617 [hep-ph]
(1) [Constraints on Higgs Couplings and Physics Beyond the Standard Model](#) - Belusca-Maito, Hermes *et al.* arXiv:1311.1113 [hep-ph]
[mehr](#)

.. davon als Selbst-Zitationen: 0 Datensätze

Co-zitiert mit: 602 Datensätzen

(4) [Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC](#) - ATLAS Collaboration (Aad, Georges *et al.*) Phys.Lett. B726 (2013) 88-119 arXiv:1307.1427 [hep-ex] CERN-PH-EP-2013-103
(4) [Combined coupling measurements of the Higgs-like boson with the ATLAS detector using up to 25 fb⁻¹ of proton-proton collision data](#) - ATLAS Collaboration ATLAS-CONF-2013-034, ATLAS-COM-CONF-2013-035
(4) [Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC](#) - ATLAS Collaboration (Aad, Georges *et al.*) Phys.Lett. B716 (2012) 1-29 arXiv:1207.7214 [hep-ex] CERN-PH-EP-2012-218
(4) [Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC](#) - CMS Collaboration (Chatrchyan, Serguei *et al.*) Phys.Lett. B716 (2012) 30-61 arXiv:1207.7235 [hep-ex] CMS-HIG-12-028, CERN-PH-EP-2012-220
(3) [Higgs at last](#) - Falkowski, Adam *et al.* JHEP 1311 (2013) 111 arXiv:1303.1812 [hep-ph]
[mehr](#)

Citation Log:
[show](#)

Information Zitationen (4) Dateien

Data from Figure 7 from: Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC - ATLAS Collaboration (for the collaboration)

Zitiert von: 4 Datensätzen

- (15) [On the presentation of the LHC Higgs Results](#) - Boudjema, F. *et al.* arXiv:1307.5865 [hep-ph]
- (4) [A Novel Approach to Higgs Coupling Measurements](#) - Cranmer, Kyle *et al.* arXiv:1401.0080 [hep-ph]
- (3) [Les Houches 2013: Physics at TeV Colliders: New Physics Working Group Report](#) - Brooijmans, G. *et al.* arXiv:1405.1617 [hep-ph]
- (1) [Constraints on Higgs Couplings and Physics Beyond the Standard Model](#) - Belusca-Maito, Hermes *et al.* arXiv:1311.1113 [hep-ph]

[mehr](#)

.. davon als Selbst-Zitationen: 0 Datensätze

Co-zitiert mit: 602 Datensätzen

- (4) [Measurements of Higgs boson production and couplings in diboson final states with the ATLAS detector at the LHC](#) - ATLAS Collaboration (Aad, Georges *et al.*) Phys.Lett. B726 (2013) 88-119 arXiv:1307.1427 [hep-ex] CERN-PH-EP-2013-103
- (4) [Combined coupling measurements of the Higgs-like boson with the ATLAS detector using up to 25 fb⁻¹ of proton-proton collision data](#) - ATLAS Collaboration ATLAS-CONF-2013-034, ATLAS-COM-CONF-2013-035
- (4) [Observation of a new particle in the search for the Standard Model Higgs boson with the ATLAS detector at the LHC](#) - ATLAS Collaboration (Aad, Georges *et al.*) Phys.Lett. B716 (2012) 1-29 arXiv:1207.7214 [hep-ex] CERN-PH-EP-2012-218
- (4) [Observation of a new boson at a mass of 125 GeV with the CMS experiment at the LHC](#) - CMS Collaboration (Chatrchyan, Serguei *et al.*) Phys.Lett. B716 (2012) 30-61 arXiv:1207.7235 [hep-ex] CMS-HIG-12-028, CERN-PH-EP-2012-220
- (3) [Higgs at last](#) - Falkowski, Adam *et al.* JHEP 1311 (2013) 111 arXiv:1303.1812 [hep-ph]

[mehr](#)

Citation Log:

[show](#)

INTELLIGENT OPENNESS

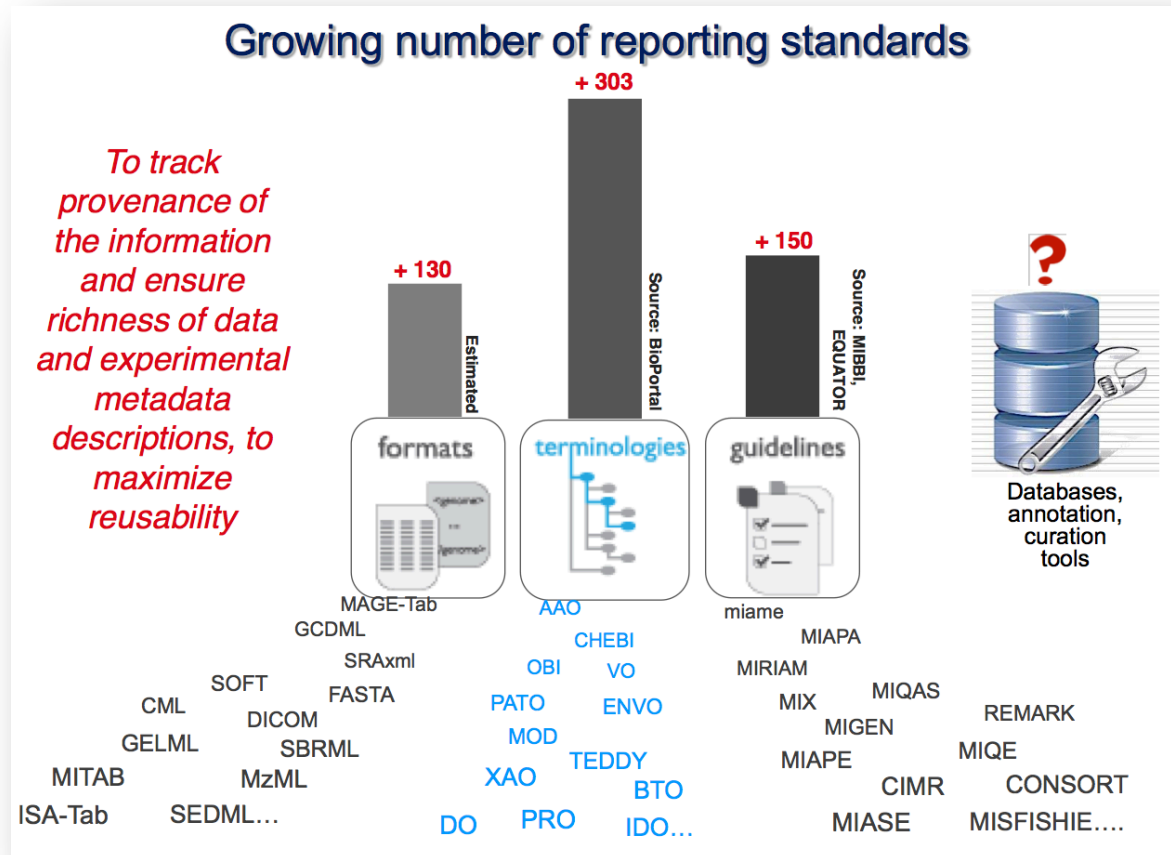
Terms	Definition
accessible	„Data and information can readily be found
assessable	„In a way that allows for an informed account of the results of scientific scrutiny to be initiated for different
intelligible	„Communication of the results of science should be something. It should be an element or assessment of the nature of the competence and reliability also includes the maintenance of public trust.”
reusable	„Information. Data should be available for purposes, and for dissemination and meta-data. It should be available to those who wish to use them.”

INTELLIGENT OPENNESS

Terms	Definition
accessible	„Data must be located in such a manner that it can readily be found and in a form that can be used.“
assessable	„In a state in which judgments can be made as to the data or information’s reliability. Data must provide an account of the results of scientific work that is intelligible to those wishing to understand or scrutinise them. Data must therefore be differentiated for different audiences.“
intelligible	„Comprehensive for those who wish to scrutinise something. Audiences need to be able to make some judgment or assessment of what is communicated. They will need to judge the nature of the claims made. They should be able to judge the competence and reliability of those making the claims. Assessability also includes the disclosure of attendant factors that might influence public trust.“
useable	„In a format where others can use the data or information. Data should be able to be reused, often for different purposes, and therefore will require proper background information and meta- data. The usability of data will also depend on those who wish to use them.“

HERAUSFORDERUNG

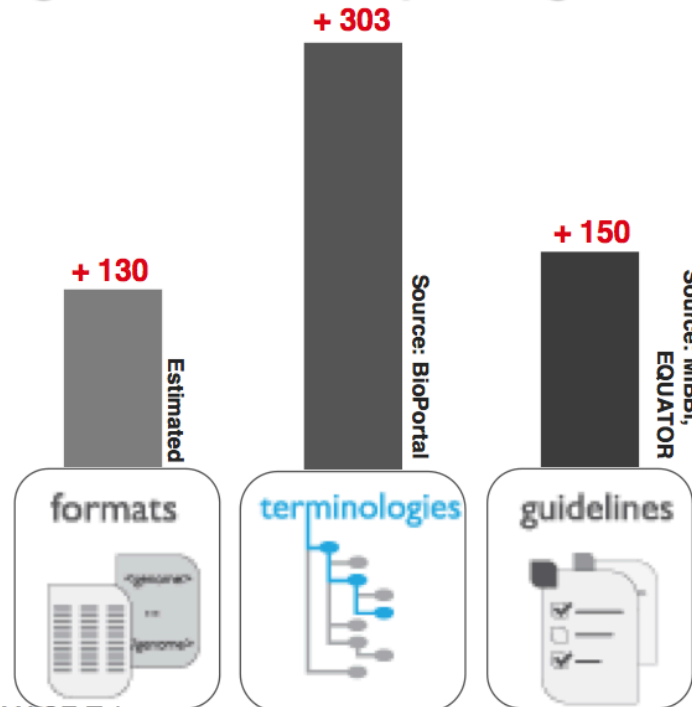
- Beispiel: Biomedizin



HERAUSFORDERUNG

Growing number of reporting standards

*To track
provenance of
the information
and ensure
richness of data
and experimental
metadata
descriptions, to
maximize
reusability*



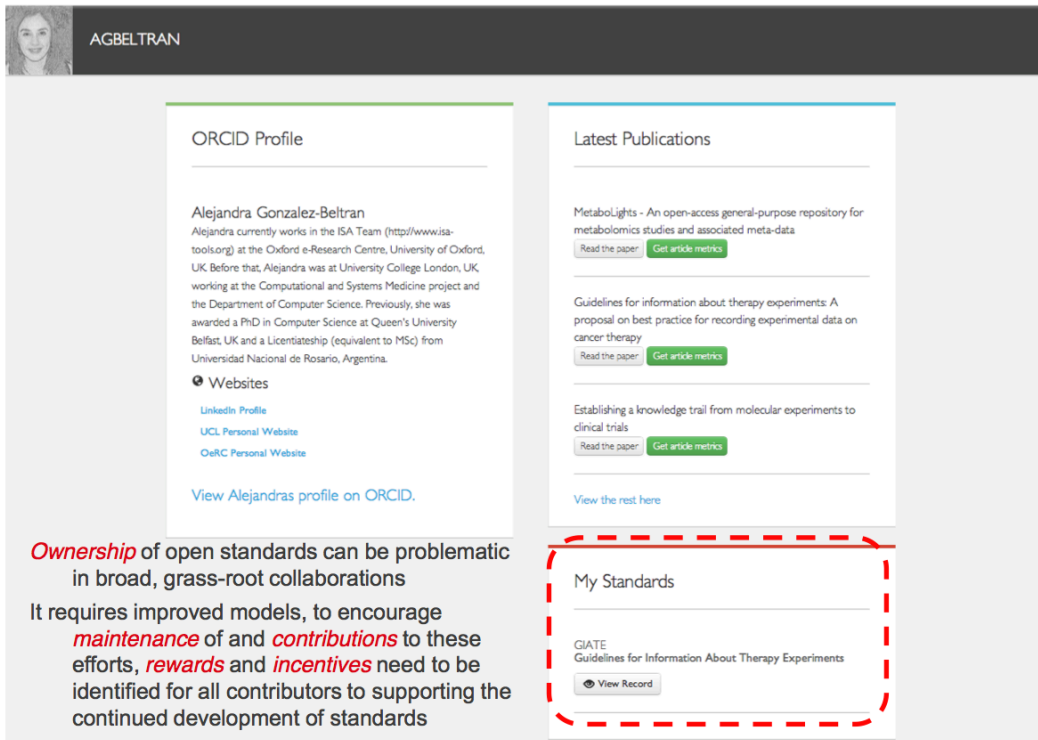
Databases,
annotation,
curation
tools

MAGE-Tab
 GCDML
 SRAxml
 FASTA
 CML
 SOFT
 DICOM
 GELML
 SBRML
 MITAB
 MzML
 SEDML...
 ISA-Tab
 PATO
 MOD
 XAO
 DO
 CHEBI
 VO
 ENVO
 TEDDY
 BTO
 IDO...
 PRO
 miame
 MIAPA
 MIRIAM
 MIX
 MIAPE
 MIASE
 MIQAS
 MIGEN
 CIMR
 REMARK
 MIQE
 CONSORT
 MISFISHIE...

HERAUSFORDERUNG

- Beispiel: Biomedizin

biosharing.org
... credit for creating, contributing to, maintaining standards



ORCID Profile

Alejandra Gonzalez-Beltran
Alejandra currently works in the ISA Team (<http://www.isa-tools.org>) at the Oxford e-Research Centre, University of Oxford, UK. Before that, Alejandra was at University College London, UK, working at the Computational and Systems Medicine project and the Department of Computer Science. Previously, she was awarded a PhD in Computer Science at Queen's University Belfast, UK and a Licentiate (equivalent to MSc) from Universidad Nacional de Rosario, Argentina.

Websites

[LinkedIn Profile](#)
[UCL Personal Website](#)
[OeRC Personal Website](#)

[View Alejandra's profile on ORCID.](#)

Latest Publications

MetaboLights - An open-access general-purpose repository for metabolomics studies and associated meta-data
[Read the paper](#) [Get article metrics](#)

Guidelines for information about therapy experiments: A proposal on best practice for recording experimental data on cancer therapy
[Read the paper](#) [Get article metrics](#)

Establishing a knowledge trail from molecular experiments to clinical trials
[Read the paper](#) [Get article metrics](#)

[View the rest here](#)

My Standards

GIATE
Guidelines for Information About Therapy Experiments
[View Record](#)

Ownership of open standards can be problematic in broad, grass-root collaborations
It requires improved models, to encourage *maintenance* of and *contributions* to these efforts, *rewards* and *incentives* need to be identified for all contributors to supporting the continued development of standards

HERAUSFORDERUNG

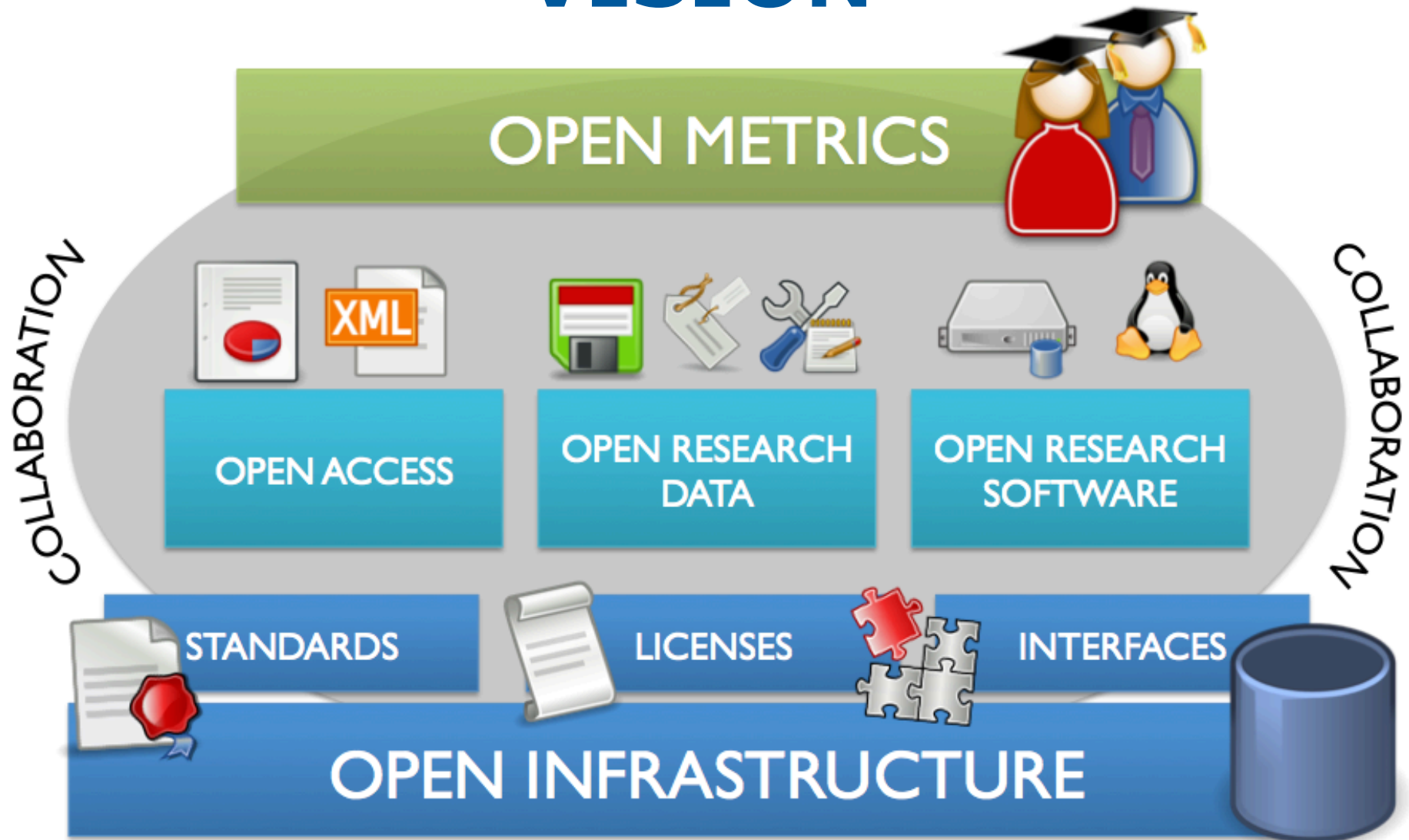
- Bio... credit for creating, contributing to, maintaining standards

The screenshot displays a user profile on the biosharing.org website. The header shows a profile picture and the name 'AGBELTRAN'. The main content is divided into three columns. The left column, titled 'ORCID Profile', contains a bio for Alejandra Gonzalez-Beltran, her current position at the Oxford e-Research Centre, and links to her LinkedIn, UCL, and ORCID profiles. The middle column, titled 'Latest Publications', lists three articles: 'MetaboLights', 'Guidelines for information about therapy experiments', and 'Establishing a knowledge trail from molecular experiments to clinical trials', each with 'Read the paper' and 'Get article metrics' buttons. The right column, titled 'My Standards', is highlighted with a red dashed border and shows the 'GIATE Guidelines for Information About Therapy Experiments' with a 'View Record' button.

Ownership of open standards can be problematic in broad, grass-root collaborations

It requires improved models, to encourage **maintenance** of and **contributions** to these efforts, **rewards** and **incentives** need to be identified for all contributors to supporting the continued development of standards

VISION



RDA DEUTSCHLAND TREFFEN

- Datum: 20. bis 21. November 2014
- Ort: Deutsches GeoForschungsZentrum GFZ
- Infos: <http://tinyurl.com/RDAtreffen>

The screenshot shows the RDA Europe website. At the top, there is a header with the RDA logo, the tagline "The Research Data Alliance is building the social and technical bridges that enable global, open sharing of data", and navigation links for LOGIN, REGISTER, and RDA GLOBAL. Below the header is a main navigation bar with links for HOME, ABOUT, RDA EUROPE FORUM, NEWS, EVENTS, and READING. A blue banner below the navigation bar reads "Home > Events > RDA Europe Events". The main content area features a date "04.06.2014" and the title "Research Data Alliance Deutschland Treffen". Below the title is the invitation text: "EINLADUNG 20.-21. November.2014 (Mittag zu Mittag) GFZ Deutsches GeoForschungs Zentrum Telegrafenberg 14473 Potsdam. Haus H, Hörsaal". A section titled "Motivation" follows, containing a paragraph about the initiative. On the right side, there is a "QUICK LINKS" section with links to RDA EUROPE EVENTS, RDA EUROPE NEWS, RDA GLOBAL, and RDA PLENARY. Below that is a "NAVIGATION" section with links to ABOUT and COMMUNICATION KIT.

04.06.2014
Research Data Alliance Deutschland Treffen
EINLADUNG 20.-21. November.2014 (Mittag zu Mittag) GFZ Deutsches GeoForschungs Zentrum Telegrafenberg 14473 Potsdam. Haus H, Hörsaal

Motivation

Wir möchten Sie zu einem Deutschland Treffen im Rahmen der internationalen Research Data Alliance Initiative einladen. Die Research Data Alliance (<http://rd-alliance.org>) ist eine weltweit operierende Initiative, die sich zum Ziel gesetzt hat, den Austausch und die Wiederverbenutzung von Forschungsdaten durch den schrittweisen Abbau der vielen Hürden zu fördern, die ein effizientes Arbeiten mit Daten gegenwärtig erschweren. RDA tut dies in ähnlicher Weise, wie es die Internet Community praktiziert, indem es "Data Practitioners" vor allem aus der Wissenschaft motiviert, in internationalen Arbeits- und Interessen-Gruppen konkrete Barrieren durch Vereinbarungen zu überwinden. Bis heute haben bereits drei Plenar-Tagungen stattgefunden und über 1600 Experten sind weltweit engagiert. Von den gegenwärtig 9 Arbeitsgruppen werden 5 im September 2014 erste Resultate präsentieren. Bisher wird RDA von der NSF/NIST (USA), der EC und der australischen Regierung unterstützt, weitere 8 Länder sind interessiert, in den Kreis der Unterstützer einzutreten.

QUICK LINKS

- RDA EUROPE EVENTS
- RDA EUROPE NEWS
- RDA GLOBAL
- RDA PLENARY

NAVIGATION

- ABOUT
- COMMUNICATION KIT

10 PUNKTE



1. Was erwarten Förderorganisationen?
2. Welche Anforderungen haben Journals?
3. Wie organisiere ich meine Daten?
4. Wie sichere ich meine Daten?
5. Soll ich meine Daten veröffentlichen?
6. Welche Vorteile hat das Data Sharing?
7. Welche Nachteile hat das Data Sharing?
8. Wie finde ich ein Repository?
9. Welchen Vorteil bieten Data Journals?
10. Wo finde ich weitere Informationen?

DANKE FÜR DIE AUFMERKSAMKEIT!

- Kontakt: pampel@gfz-potsdam.de
- re3data.org: <http://re3data.org>
- Wiki: <http://forschungsdaten.org>
- Mailingliste: <http://tinyurl.com/datenliste>
- GFZ / LIS: <http://bib.telegrafenberg.de>