

# re3data.org – Registry of Research Data Repositories

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# Background

- Funders' data policies
  - Example: European Commission

## 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 1);*
- (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).*

European Commission. (2014). Horizon 2020 Annotated Model Grant Agreements. Version 1.6.2. Retrieved from [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/amga/h2020-amga\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf)

# Background

- Journals' data policies
  - Example: Nature Publishing Group
    - “[...] authors are required to make materials, data and associated protocols promptly available to readers without undue qualifications.”
  - Example: Public Library of Science - PLOS
    - “PLOS journals require authors to make all data underlying the findings described in their manuscript fully available without restriction, with rare exception.”

NPG (2013). Availability of data and materials. Retrieved from <http://www.nature.com/authors/policies/availability.html>

PLOS (2014). PLOS Editorial and Publishing Policies. Retrieved from <http://www.plosone.org/static/policies.action>

# Background

- Jour

- Exa

## 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.**

- Exa

- 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.

NPG (2013). Availability

PLOS (2014). PLOS Editorial and Publishing Policies. Retrieved from <http://www.plosone.org/static/policies.action>

# re3data.org – Mission

- global registry of research data repositories
- covers all academic disciplines
- helps researchers, funding bodies, publishers, libraries and scholarly institutions to find research data repositories
- promotes a culture of sharing, increased access and better visibility of research data

# re3data.org – Schema



Properties

39

Based on Analyses,  
Feedback and Experience

Version

2.2

# re3data.org – Icons



The research data repository provides additional information on its service.

The research data repository is either certified or supports a repository standard.



The research data repository provides a policy.



The research data repository provides open/restricted/closed access to its data.

The research data repository uses a persistent identifier system to make its provided data persistent, unique and citable.



The terms of use and licenses of the data are provided by the research data repository.

## Search for Repositories (1350 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



Reset filter

3 results (filtered) ( 1 - 3 )

Sort by Weight

### PANGAEA

Data Publisher for Earth and Environmental Science



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



Repository details



## PANGAEA

General Institutions Terms Standards

Name of repository	PANGAEA
Additional name(s)	Publishing Network for Geoscientific and Environmental Data
Repository URL	<a href="http://www.pangaea.de">http://www.pangaea.de</a>
Subject(s)	<a href="#">Oceanography</a> <a href="#">Geology and Palaeontology</a> <a href="#">Geophysics</a> <a href="#">Geochemistry, Mineralogy and Crystallography</a> <a href="#">Biology</a> <a href="#">Atmospheric Science and Oceanography</a> <a href="#">Geosciences (including Geography)</a> <a href="#">Natural Sciences</a> <a href="#">Geology and Palaeontology</a> <a href="#">Geophysics and Geodesy</a> <a href="#">Geochemistry, Mineralogy and Crystallography</a> <a href="#">Life Sciences</a>
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 type(s)	<a href="#">Standard office documents</a> <a href="#">Images</a> <a href="#">Plain text</a> <a href="#">Archived data</a> <a href="#">Audiovisual data</a>
Keyword(s)	<a href="#">Earth Science</a> <a href="#">Environmental Science</a>
Repository type(s)	disciplinary
Research data repository language(s)	eng
Data and/or service provider	dataProvider

Repository details



## PANGAEA

General Institutions Terms Standards

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

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

Repository details



## PANGAEA

General Institutions **Terms** Standards

### Policies (1)

Policy Name	Data policy of the information system PANGAEA
URL	<a href="http://www.pangaea.de/curator/files/pangaea-data-policy.pdf">http://www.pangaea.de/curator/files/pangaea-data-policy.pdf</a>

### Database access

Type of access to research data repository	open
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### Data access (1)

Type of access to data	open
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### Data licenses (1)

DataLicense	CC
URL	<a href="http://wiki.pangaea.de/wiki/License">http://wiki.pangaea.de/wiki/License</a>

### Data upload (1)

Type of data upload	restricted
Data upload restriction type(s)	registration

### Data upload license (1)

Data upload license name	Data Submission
Data upload license URL	<a href="http://wiki.pangaea.de/wiki/Data_submission">http://wiki.pangaea.de/wiki/Data_submission</a>

Repository details



## PANGAEA

General Institutions Terms Standards

Name of the repository software other

Versioning yes

Persistent identifier system(s) DOI

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)

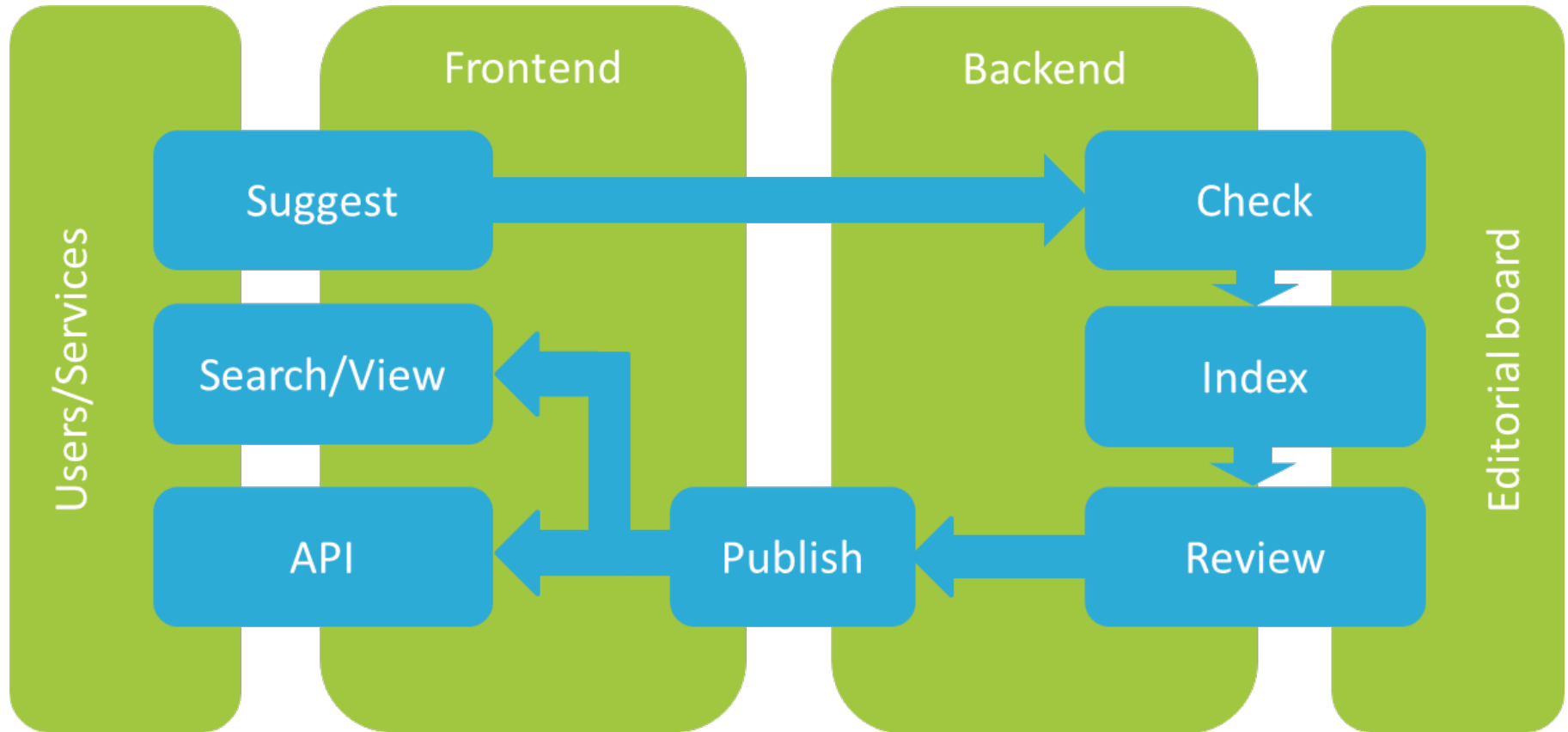
Entry date 2012-07-16

Last update 2014-04-14

# re3data.org – Quality

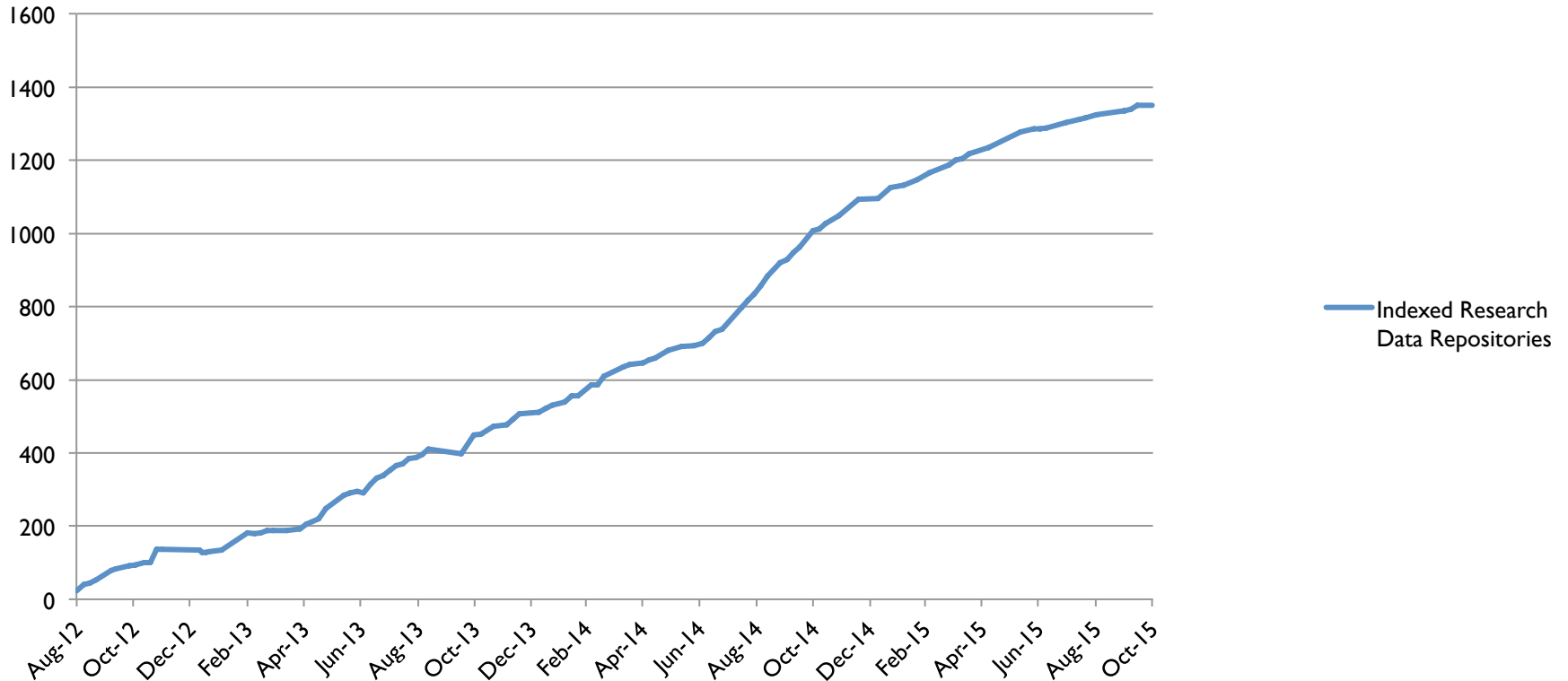
- Registration Policy
  - To be registered in re3data.org a research data repository must
    - be run by a legal entity, such as a sustainable institution (e.g. library, university);
    - clarify access conditions to the data and repository as well as the terms of use;
    - have an English graphical user interface (GUI);
    - have focus on research data.

# re3data.org – Workflow



# re3data.org – Indexed Repositories

## Growth of re3data.org



# re3data.org – Cooperation

- Deutsche Initiative für Netzwerkinformation (DINI)
- DataCite (MoU, April 2012)
- OpenAIRE (MoU, October 2013)
- BioSharing (MoU, November 2013)
- Databib (MoU, March 2014)
- DataCite (Formal cooperation, March 2015)





# re3data.org – Policies

- Funder Example: European Commission

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](http://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.

European Commission (2015): Guidelines on Open Access to Scientific Publications and Research Data in Horizon 2020 [http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf)

- Institutional Example: Bielefeld University

- „Verzeichnisse, wie das DFG-geförderte "Registry of Research Data Repositories", bilden die Grundlage für die Suche nach geeigneten Publikationsorten für die Forschungsdaten.“

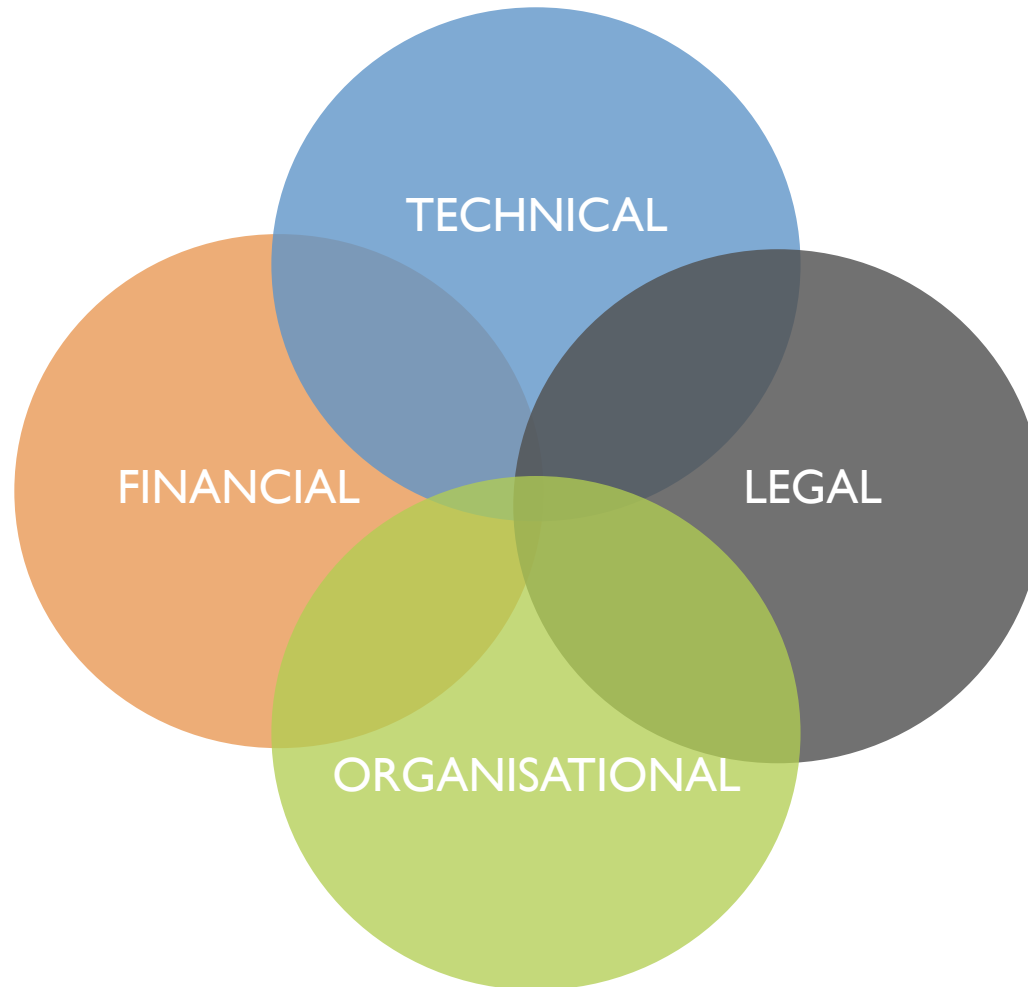
Universität Bielefeld (2011): Resolution zum Forschungsdatenmanagement. <https://data.uni-bielefeld.de/de/resolution>

- Publisher Example: Nature Publishing Group

- „Physics, astrophysics, astronomy and geoscience databases should be registered with re3data.org.“

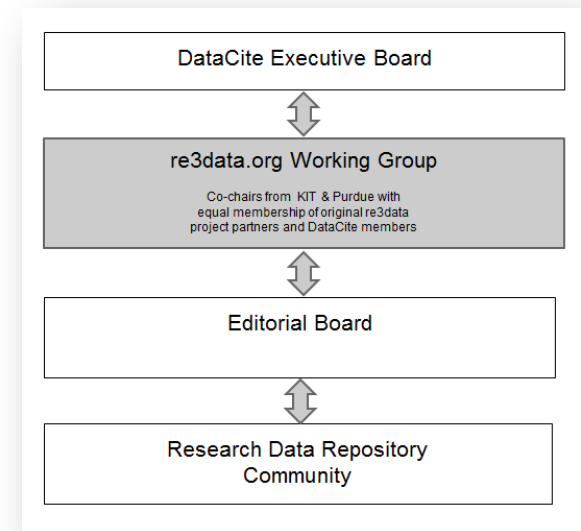
Scientific Data (2013): Data policies. <http://www.nature.com/sdata/data-policies>

# Dimensions of sustainability



# re3data.org – Organizational sustainability

- Merger with DataBib under the auspices of DataCite
- re3data.org working group within DataCite
- International Editorial Board
- Cooperations within RDA and the research data repository community
- Community building and feedback loops during RFC phases (e.g. re3data.org schema)



# re3data.org – Technical sustainability

- Open interfaces
  - RESTful API
  - OpenSearch
  - Documentation: <http://www.re3data.org/api/doc>
  - Used e.g. by OpenAIRE
- Open metadata
  - Documentation: <http://www.re3data.org/schema/>
- Long-term hosting commitment by KIT

# re3data.org – Legal sustainability

- Open licenses
  - CC BY for the website
  - CC 0 for metadata

## LICENSES



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To the extent possible under law, **re3data.org** has waived all copyright and related or neighboring rights to the database entries of re3data.org.

# re3data.org – Financial sustainability

- Technical maintenance financed by DataCite from 2016
- Further development managed by DataCite
- Further project funding



# re3data.org – Next steps

- re3data.org persistent identifier

Repository details

**PANGAEA**

General Institutions Terms Standards

Name of repository **PANGAEA**

Additional name(s) Data Publisher for Earth and Environmental Science

Repository URL <http://www.pangaea.de>

Subject(s)

Description

Content type


Keyword(s) **Earth Science** **Environmental Science**


Repository type(s) disciplinary

Research data repository language(s) eng

Data and/or service provider dataProvider

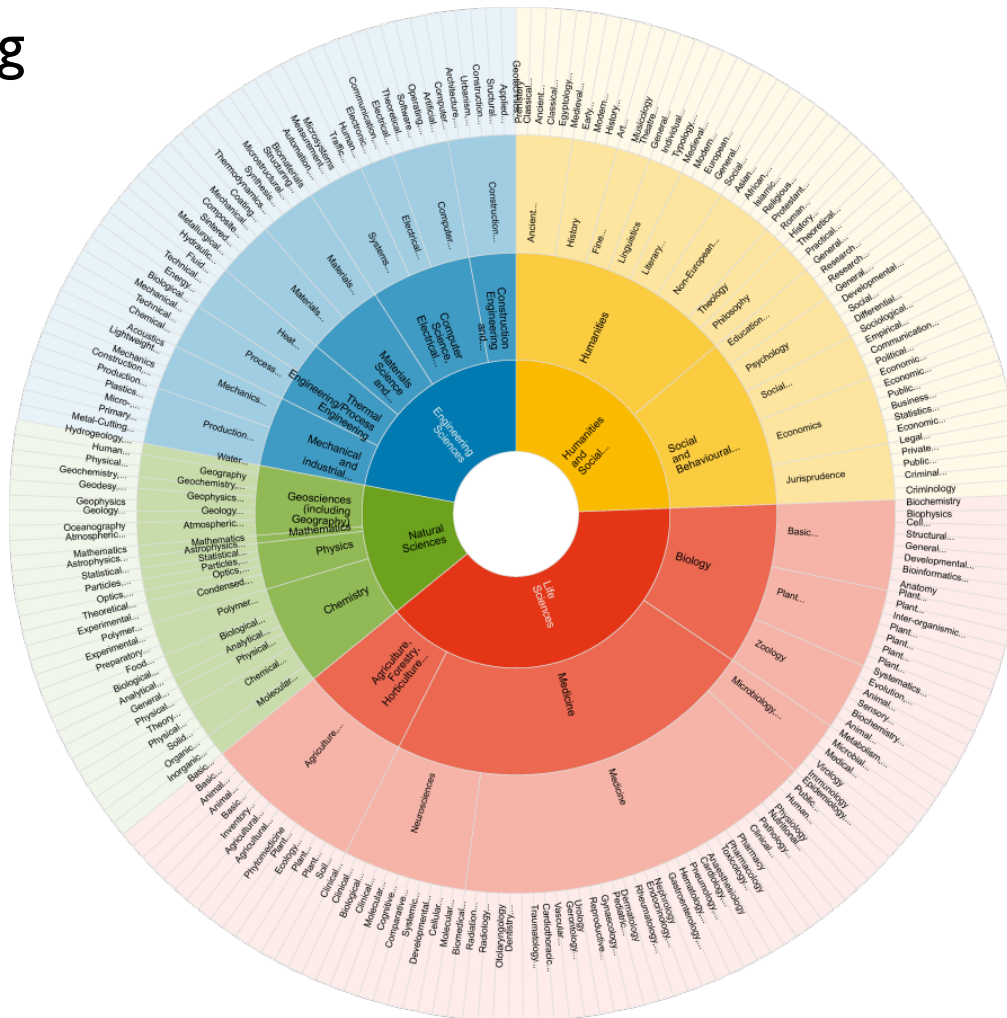
[Back to search](#)

 **Cite this re3data.org record:**  
re3data.org: PANGAEA; editing status 2015-11-18; re3data.org - Registry of Research Data Repositories.  
<http://doi.org/10.17616/R3XS37> last accessed: 2015-11-25

 **Cite this re3data.org record:**  
re3data.org: PANGAEA; editing status 2015-11-18; re3data.org - Registry of Research Data Repositories.  
<http://doi.org/10.17616/R3XS37> last accessed: 2015-11-25

# re3data.org – Next steps

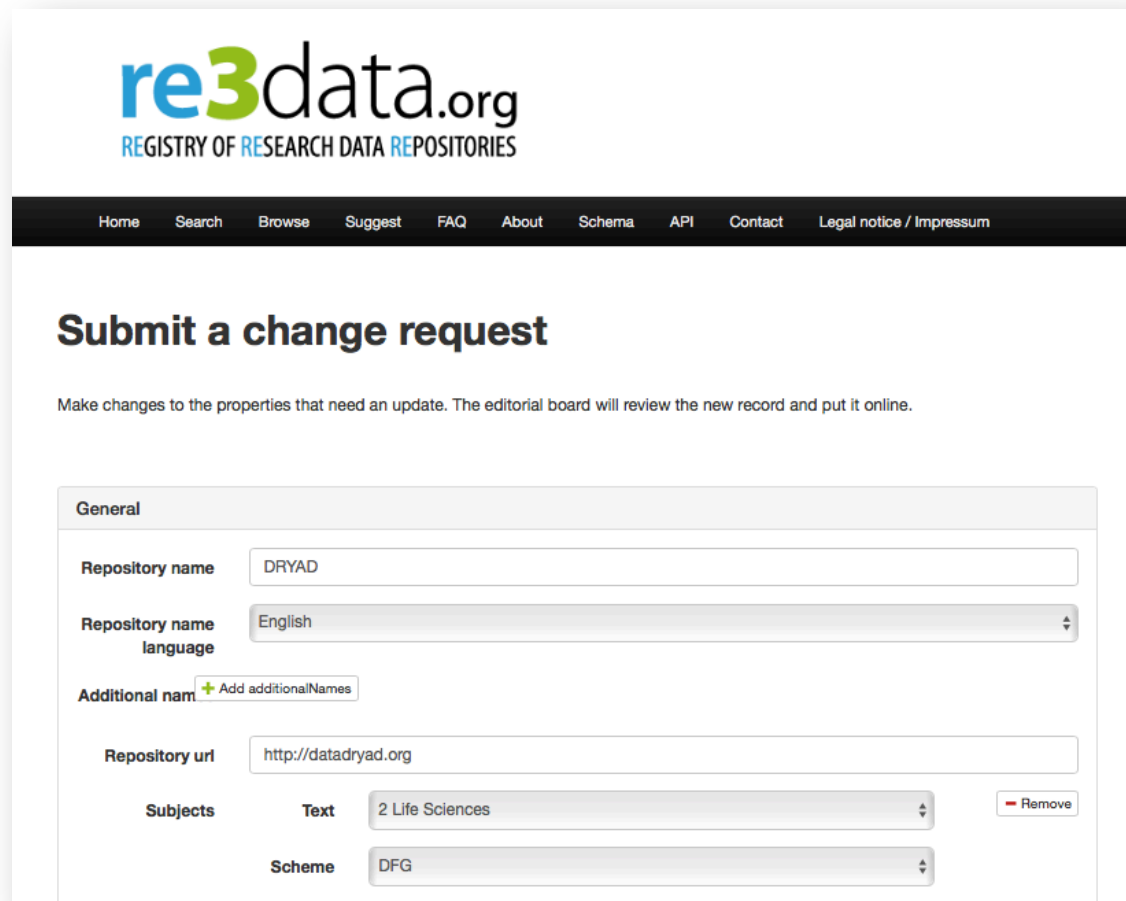
- Browsing





# re3data.org – Next steps

- Change requests



The screenshot shows the re3data.org website with the 'Submit a change request' form. The form is titled 'Submit a change request' and includes a sub-header 'General'. The form fields are as follows:

- Repository name:** DRYAD
- Repository name language:** English
- Additional name:** + Add additionalNames
- Repository url:** http://datadryad.org
- Subjects:**
  - Text:** 2 Life Sciences (with a Remove button)
  - Scheme:** DFG

# Thanks to the team!

- Roland Bertelmann, Caludio Fuchs, Heinz Pampel, Paul Vierkant
  - GFZ German Research Centre for Geosciences, Library and Information Services (LIS)
- Florian Fritze, Maxi Kindling, Jessika Rücknagel, Peter Schirmbacher, Stephanie van de Sandt
  - Humboldt-Universität zu Berlin, Berlin School of Library and Information Science (BSLIS)
- Hans-Jürgen Goebelbecker, Gabriele Kloska, Evelyn Reuter, Frank Scholze, Edeltraud Schnepf, Angelika Semrau, Michael Skarupianski, Robert Ulrich
  - Karlsruhe Institute of Technology (KIT), KIT Library
- Michael Witt
  - Purdue University, Distributed Data Curation Center (D2C2)

## WHERE DO YOU STORE YOUR RESEARCH DATA?

- USB DRIVE
- DROPBOX
- RESEARCH DATA REPOSITORY

info@re3data.org

http://re3data.org



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