

DataCite DOI names for research data

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DASISH Workshop on
PID Services

December 8-9, 2014
GESIS Cologne

Prologue

1998: Paper on the idea of using DOI names for data citation (by the German GFZ, Potsdam)

2000: (17th International CODATA Conference, Italy) => German CODATA

2000 – 2002 German working group funded by the German Research Foundation (DFG)

2003 – 2007 Project „Citability of primary data (DFG funded) – Partners: WDC MARE Bremen (PANGAEA), WDC CLIMATE Hamburg, GFZ Potsdam, TIB Hannover

2004: First DOI names for research data

First DOI names for data from project partners:

18.03.2004: doi:10.1594/WDCC/EH4_OPYC_SRES_A2 (DOI #1)

22.07.2004: doi:10.1594/GFZ/ICDP/KTB/KTB-GEOCH-GASCHR-P

14.12.2004: doi:10.1594/PANGAEA.119754

End of 2004: about 30 DOI names registered and referenced in TIB library catalogue

DOI for Scientific and Technical Data
10.1594/WDCC/EH4_OPYC_SRES_A2

Citation elements

Creator
(person(s) or institute(s) responsible for this assemblage of data: e.g. author, data collector, editor...)
Stendel, Martin; Schmith, Torben; Roeckner, Erich; Cubasch, Ulrich

Publication Year
2004

Title
ECHAM4_OPYC_SRES_A2: 110 YEARS COUPLED A2 RUN 6H VALUES

DOI Publisher
WDCC at DKRZ

Identifier
DOI:10.1594/WDCC/EH4_OPYC_SRES_A2

The DataCite consortium proposes a **citation format** (Creator (PublicationYear): Title. DOI Publisher. Identifier) and also offers citation export in different formats.

Detailed Metadata
http://cera-www.dkrz.de/WDCC/ui/Entry.jsp?acronym=EH4_OPYC_SRES_A2

Data Access
http://cera-www.dkrz.de/WDCC/ui/EntryList.jsp?acronym=EH4_OPYC_SRES_A2

Summary
The SRES data sets were published by the IPCC in 2000 and classified into four different scenario families (A1, A2, B1, B2). SRES-A2 storyline describes a very heterogeneous world with the underlying theme of self-reliance and preservation of local identities. It results in this scenario a continuous increasing population together with a slower economic growth and technological change. The model consists of the atmospheric component which based on the weather forecast model of ECMWF. The atmospheric component is the standard model version of a 19-level hybrid sigma-pressure coordinate system.

TIBORDER - Dokumentlieferdienst der TIB Hannover - results/titledata - Microsoft Internet Explorer - zur Verfügung gestellt von

Suchen | Suchergebnis | Erweiterte Suche | Zwischenablage | Hilfe

Titel: ECHAM4_OPYC_SRES_A2: 110 years coupled A2 run 6h values / World Data Center for Climate (WDCC), Hamburg, Martin Stendel, Torben Schmith, Erich Roeckner ...

Beteiligt: Martin Stendel; Torben Schmith; Erich Roeckner

Körperschaft: World Data Center for Climate (WDCC)

Erschienen: 2003-01-26

Umfang: 961261722720 Bytes.

Anmerkung: mode: abstract

Inhalt: resourceType: PrimaryData
issueNumber: 1
This is a transient scenario experiment where changes in greenhouse gas concentrations and sulfur emissions from 1990 until 2100 are prescribed according the SRES A2 scenario (IPCC, Third Assessment Report). The model experiment is initialized in 1990 using data from the 'GSDIO' experiment described in Roeckner et al. (1999) J. Climate 12, 3004-3032. The model consists of the atmospheric component ECHAM4 (MPI report No. 218) and the isopycnal ocean model OPYC (DKRZ technical report No. 7). The coupling procedure and results are documented in Roeckner et al. (1996), Climate Dynamics 12, 737-754 and in Bacher et al. (1998) Climate Dynamics 14, 431-450.

Technische Angaben: format: GRIB

Bestandsinfo: <89> Hannover, Universitätsbibliothek Technische Informationsbibliothek
Volltext/Image: Anzeigen lizenzpflichtig!

Think global – act local

Science is global

- it needs global standards
- Global workflows
- Cooperation of global players

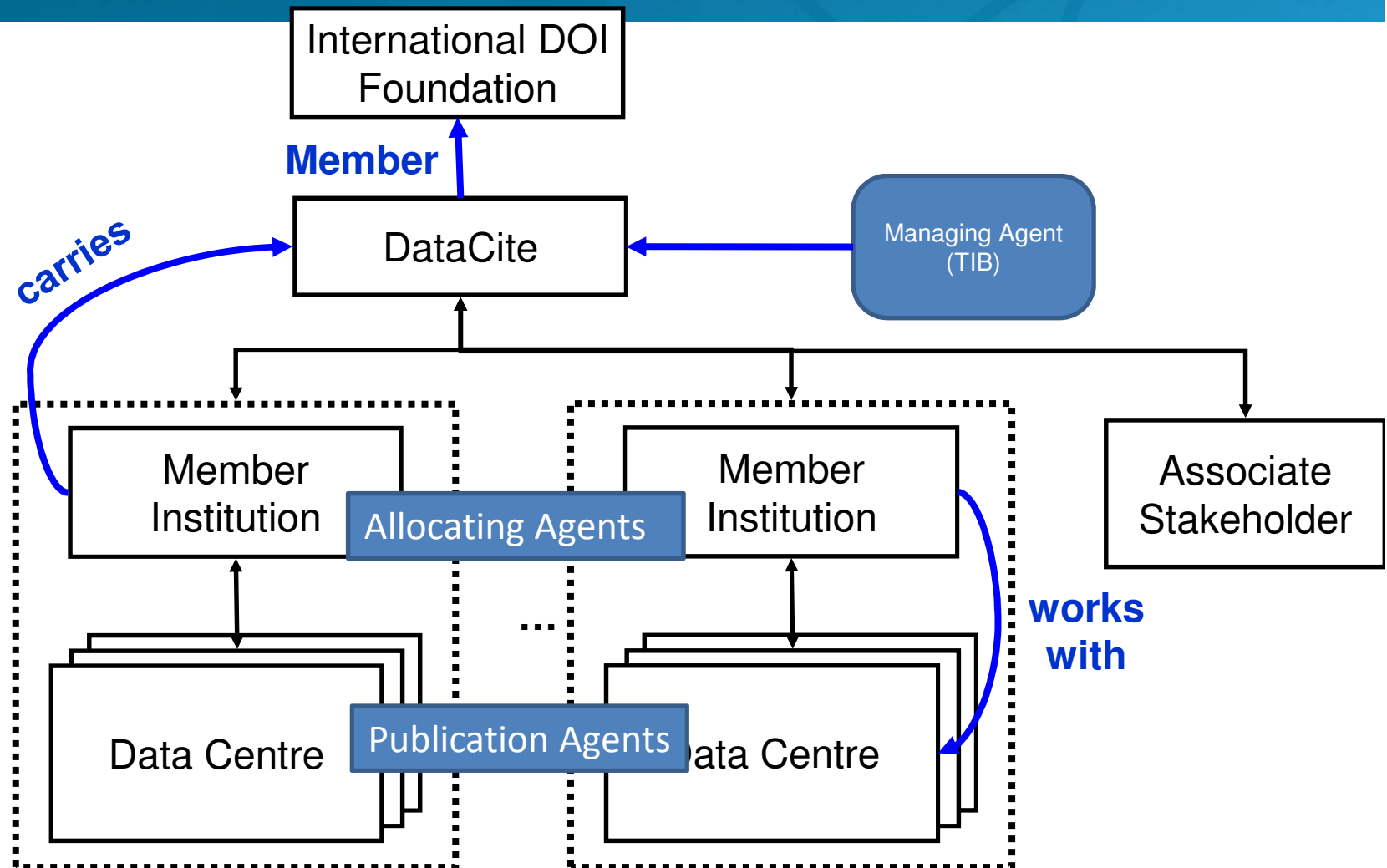
Science is carried out locally

- By local scientist
- Being part of local infrastructures
- Having local funders

DataCite

- founded on December 1st, 2009 in London
- focuses on improving the scholarly infrastructure around datasets and related information
- working with data centers and organizations that hold content
- providing standards, workflows and best-practice
- global consortium carried by local institutions
- initially, but not exclusively based on the DOI system

DataCite structure



DataCite members

1. Technische Informationsbibliothek (TIB)
2. Canada Institute for Scientific and Technical Information (CISTI),
3. California Digital Library, USA
4. Purdue University, USA
5. Office of Scientific and Technical Information (OSTI), USA
6. Library of TU Delft, The Netherlands
7. Technical Information Center of Denmark
8. The British Library
9. ZB Med, Germany
10. ZBW, Germany
11. Gesis, Germany
12. Library of ETH Zürich
13. L'Institut de l'Information Scientifique et Technique (INIST), France
14. Swedish National Data Service (SND)
15. Australian National Data Service (ANDS)
16. Conferenza dei Rettori delle Università Italiane (CRUI)
17. National Research Council of Thailand (NRCT)
18. The Hungarian Academy of Sciences
19. University of Tartu, Estonia
20. Japan Link Center (JaLC)
21. South African Environmental Observation Network (SAEON)
22. European Organisation for Nuclear Research (CERN)

Affiliated members:

1. Digital Curation Center (UK)
2. Microsoft Research
3. Interuniversity Consortium for Political and Social Research (ICPS)
1. Korea Institute of Science and Technology Information (KISTI)
5. Beijing Genomic Institute (BGI)
6. IEEE
7. Harvard University Library
8. World Data System (WDS)
9. GWDG

**Anything that is the foundation
of further reserach
is research data**

Data is evidence!

What type of data are we talking about?

Earth quake events => [doi:10.1594/GFZ.GEOFON.gfz2009kciu](https://doi.org/10.1594/GFZ.GEOFON.gfz2009kciu)

Climate models => [doi:10.1594/WDC/dphase_mpeps](https://doi.org/10.1594/WDC/dphase_mpeps)

Sea bed photos => [doi:10.1594/PANGAEA.757741](https://doi.org/10.1594/PANGAEA.757741)

Distributes samples => [doi:10.1594/PANGAEA.51749](https://doi.org/10.1594/PANGAEA.51749)

Medical case studies => [doi:10.1594/eaacinet2007/CR/5-270407](https://doi.org/10.1594/eaacinet2007/CR/5-270407)

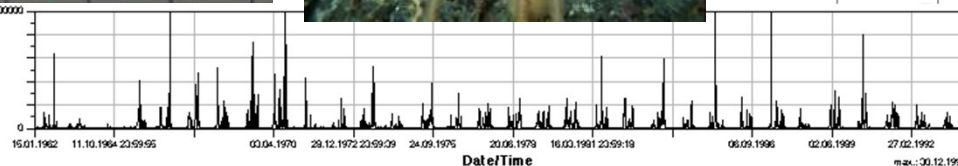
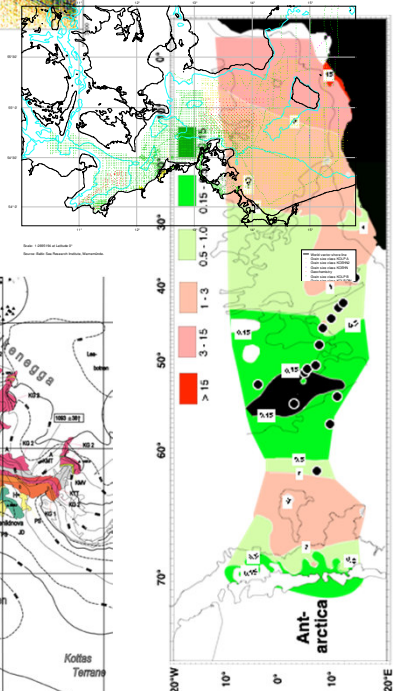
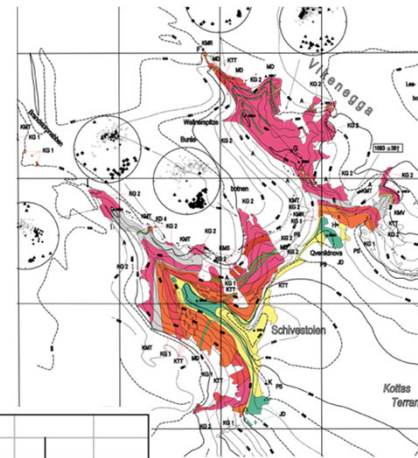
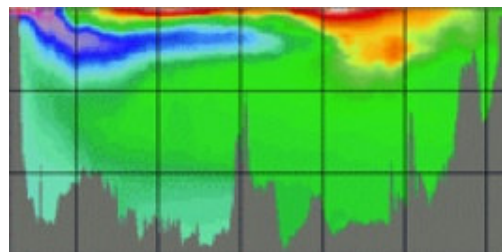
Survey data => [doi:10.4232/1.11004](https://doi.org/10.4232/1.11004)

Computational model => [doi:10.4225/02/4E9F69C011BC8](https://doi.org/10.4225/02/4E9F69C011BC8)

Audio record => [doi:10.7477/4:2:1](https://doi.org/10.7477/4:2:1)

Grey Literature => [doi:10.2314/GBV:489185967](https://doi.org/10.2314/GBV:489185967)

Videos => [doi:10.3207/2959859860](https://doi.org/10.3207/2959859860)

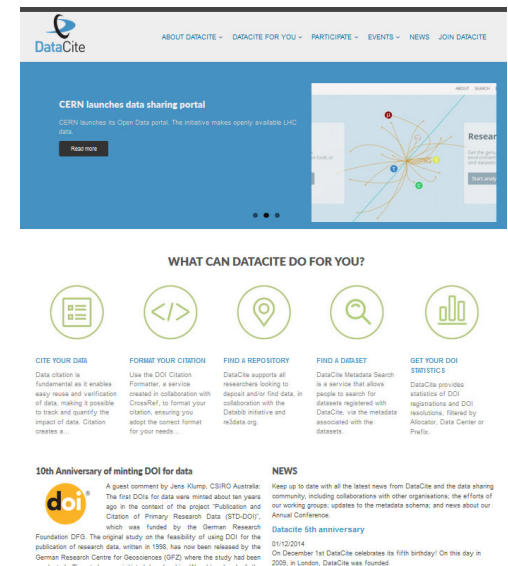


DataCite in 2014

~ 3,980,000 DOI names registered so far
350 data centers (publication agents)
14,000,000 resolutions so far in 2014

New website launched (1 Decemeber 2014)

<http://www.datacite.org/>



DataCite Metadata schema published (in cooperation with all members) <http://schema.datacite.org>

DataCite Metadata Store: <http://search.datacite.org>

OAI and Statistics

OAI harvester <http://oai.datacite.org>

DataCite statistics (resolution and registration)
<http://stats.datacite.org>

Content negotiation (with CrossRef)
<http://www.crosscite.org/cn/>

DOI Citation Formatter <http://crosscite.org/citeproc/>

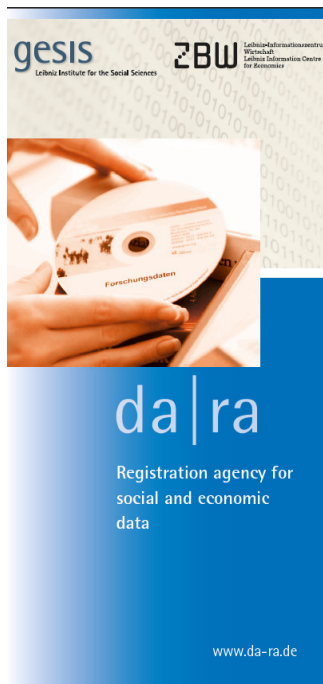
Latest developments

- ODIN project with ORCID <http://datacite.labs.orcid-eu.org/>
- MoU with Thomson Reuters to cooperate on Data Citation Index
- DataCite plugin for next D-Space release
- Agreement with Re3Data and DataBib to include their service (in 2016)
- MoU with RDA to become organizational affiliate
- Joint Declaration of Data Citation Principles
<https://www.force11.org/datacitation>

DataCite 2014



da|ra - Registration agency for social and economic data



- special service for the Social Sciences and the Economics
- provided by GESIS and ZBW (since 2011)
- started as a service for German data providers => increase of international users

da|ra

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Registration agency for
social and economic data

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Welcome to da|ra

run by:

gesis
Leibniz-Institut
für Sozialwissenschaften
ZBW
Leibniz-Informationszentrum
Wirtschaft
Leibniz Information Centre
for Economics

Leibniz
Association

funded by:

DFG

In cooperation with DataCite, the international research data, GESIS Leibniz-Institute for Social Sciences offer the DOI registration agency.

da|ra provides access to the [data reference](#)

[> Information for data centers](#)

[> Information for researchers](#)

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Quick search in metadata:

Advanced search

Resolve DOI: 10.4232/1.

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da|ra Policy

Operator

da|ra Policy

Policy

Service Level Agreement

Best Practice

Our users

Data Cite

Workshops

FAQ

da|ra Policy

da|ra policy defines all guidelines (names) through the registration agency.

This policy determines all metadata for the DOI-receiver (publication) and dictates the required decision agents.

The policy reflects the best practice for the da|ra policy (version 2.2, as of 2014/18).

The Service Level Agreement (SLA) regulates the contract between the Leibniz-Institute for Social Sciences and the Leibniz Information Centre for Economics according to the terms and conditions of the SLA.

The SLA comprises:

1. Service description
2. DOI naming and granularities
3. Technical interfaces and data exchange
4. Metadata description
5. Warranty and liability
6. Terms of use
7. Cost model

[To download the SLA template](#)

Information about the current version of the SLA. To obtain further information, you can contact the registration agency (SLA).

Registration agency for

TECHNICAL Reports 2014/18

Best Practice Guide for the Registration of Resources with da|ra

Version 1.0

DOI: 10.4232/10.bpg.1.0

Kerstin Helbig, Brigitte Hausstein

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Create metadata set

[DOI registration]

Basic information Methods Description Identifiers Publications

1. 1. Resource Type*

General Type Free

1. 2. Resource Identifier*

use my ID and version use my ID automatic generation

Resource ID*

Version*

1. 3. Title*

1. 4. Other Titles



da|ra Metadata schema 3.1



Compliant with DataCite and DDI Standard

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- da|ra MetadatenSchema v3.1 - www.da-ra.de 18112014-->
<xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" elementFormDefault="qualified">
  <!-- *0. Object Resource Type-->
  <xs:element name="resourceType">
    <xs:annotation>
      <xs:documentation>mandatory</xs:documentation>
      <xs:documentation xml:lang="de">Genereller Typ der Ressource</xs:documentation>
      <xs:documentation xml:lang="en">The general type of a resource</xs:documentation>
    </xs:annotation>
    <xs:simpleType>
      <xs:restriction base="xs:integer">
        <xs:enumeration value="1">
          <xs:annotation>
            <xs:documentation xml:lang="de">Sammlung</xs:documentation>
            <xs:documentation xml:lang="en">Collection</xs:documentation>
          </xs:annotation>
        </xs:enumeration>
        <xs:enumeration value="2">
```

da|ra services

- **web service** (da|ra publication agents, DataCite)
- **da|ra test system**
- **support metadata generation** (web based entry mask, controlled vocabularies)
- **OAI-PMH harvesting (beta)**
- **export/registration plug-in for OJS**
- **link data und publications** (Infolis)
- **search the metadata (API)**
=> da|raSearchNet (DFG 2014-2017)

~ 420.000 DOI names in da|ra

ZeBiS
Zentrum für ökonomische Bildung in Siegen

ICPSR

ifl
RWI

diē
German Institute for
Adult Education
Leibniz Centre for
Lifelong Learning

UB
MANNHEIM

ZEW
Zentrum für Europäische
Wirtschaftsforschung GmbH

Diametros
ANALYSIS POLITICAL SCIENCE

Bundesinstitut
für Bevölkerungsforschung

Panel on household
finances

CRS

DZA
Deutsches Zentrum
für Altersfragen
Forschungsdatenzentrum

WZB

Wissenschaftszentrum Berlin
für Sozialforschung

DIPF
Bildungsforschung
und Bildungspolitik

Psychologie
Information
ZPID – Leibniz Institut

ROBERT KOCH INSTITUT

BiBB.FDZ
Forschungsförderungszentrum
im Bundesinstitut für Berufsbildung

UNIVERSITÄTS-
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HEIDELBERG

Economic &
Business
Data
Center

SOEP
Das Sozio-
ökonomische
Panel

Betriebs- und
OrganisationsDATEN

LifBi

zfl
Zentrum für Literatur- und
Kulturforschung Berlin

datalino

EUROPA-UNIVERSITÄT
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ETUM - E-JOURNAL FOR
THEATRE AND MEDIA

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Research Council

JNA
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Neolithic
Archaeology

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HEIDELBERG

SHARE
Survey of Health, Ageing and
Retirement in Europe

WVS
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<http://datacite.org>

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