

# ReKliEs-De

Abschlussworkshop

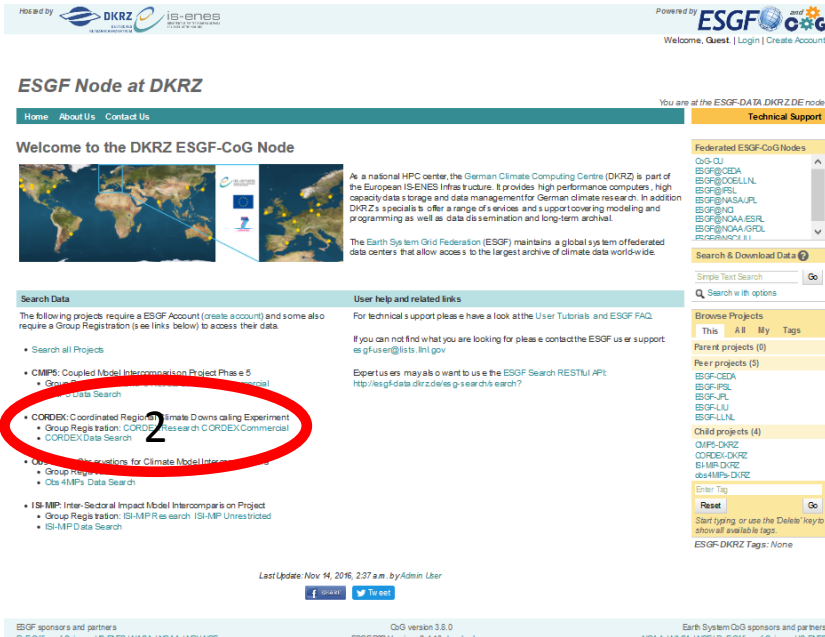
## Datensuche und Datendownload

# Datensuche und Datendownload

- ESGF (Earth System Grid Federation)
  - Weltweit vernetztes Datenportal
- WDCC (World Data Centre of Climate)
  - Langzeitarchiv des DKRZ



# Datensuche und Datendownload ESGF (2)



ESGF Node at DKRZ

Welcome to the DKRZ ESGF-CoG Node

Search Data

The following projects require a ESGF Account (create account) and some also require a Group Registration (see links below) to access their data.

- Search all Projects
- CMIP5: Coupled Model Intercomparison Project Phase 5
  - Group Registration
- CORDEX: Coordinated Regional Climate Downscaling Experiment**
  - Group Registration: CORDEX Research
  - CORDEX Data Search
- CMIP6: The next generation for Climate Model Intercomparison
  - Group Registration
  - Obs 4MIPs Data Search
- ISI-MIP: Inter-Sectoral Impact Model Intercomparison on Project
  - Group Registration: ISI-MIP Research
  - ISI-MIP Unrestricted
  - ISI-MIP Data Search

User help and related links

For technical support please have a look at the User Tutorials and ESGF FAQ.

If you can not find what you are looking for please contact the ESGF user support at [esgfuser@lists.illinois.edu](mailto:esgfuser@lists.illinois.edu)

Expert users may also want to use the ESGF Search RESTful API: <http://esgf-data.dkrz.de/esg-search/search/>

ESGF-Data Tags: None

## Schritt 2:

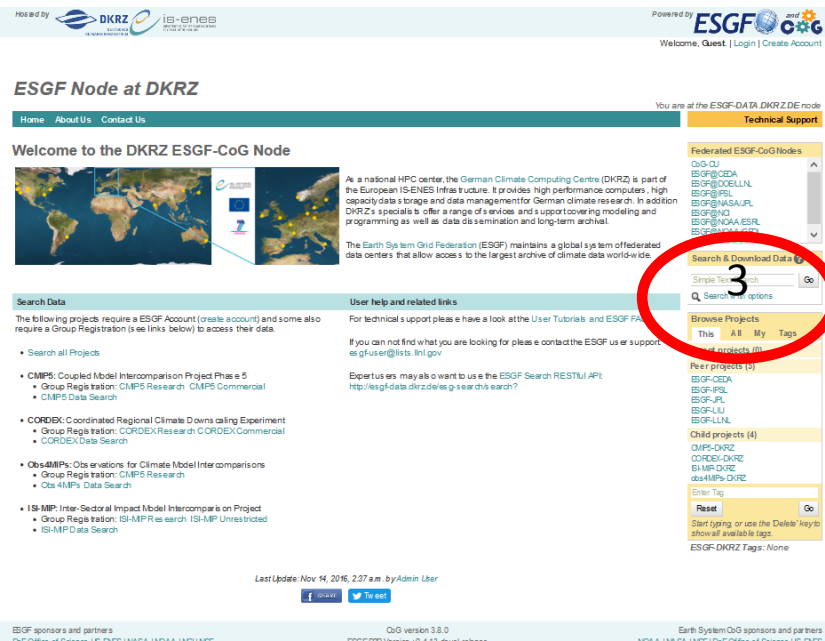
Registrierung bei einer Datenzugriffs-Kontrollgruppe („Group Registration“):  
Zur Erlangung der Berechtigung, auf Daten eines Projektes zugreifen zu dürfen (Autorisierung)

Für ReKliEs-Daten wird die Mitgliedschaft in einer CORDEX- Datenzugriffs-Kontrollgruppe benötigt, für wissenschaftliche Nutzung ist es CORDEX Research.

Alternative Autorisierungsmöglichkeiten:

- Zugriffsversuch mit dem Browser auf ein einzelnes File dieses Projektes.  
Ohne Autorisierung: automatische Weiterleitung auf eine Registrierungsseite.
- Über die Liste der Datenzugriffs-Kontrollgruppen (<https://esgf-node.jpl.nasa.gov/ac/list/>)

# Datensuche und Datendownload ESGF (3)



Powered by **ESGF** and **CoG**

Welcome, Guest | Login | Create Account

## ESGF Node at DKRZ

Home About Us Contact Us Technical Support

You are at the ESGF-DATA DKRZ DE node

### Welcome to the DKRZ ESGF-CoG Node

As a national HPC center, the German Climate Computing Centre (DKRZ) is part of the European IS-ENES Infrastructure. It provides high performance computers, high capacity data storage and data management for German climate research. In addition DKRZ's specialists offer a range of services and support covering modeling and programming as well as data dissemination and long-term archival.

The Earth System Grid Federation (ESGF) maintains a global system of federated data centers that allow access to the largest archive of climate data world-wide.

#### Search Data

The following projects require a ESGF Account (create account) and some also require a Group Registration (see links below) to access their data.

- Search all Projects
- CMP5**: Coupled Model Intercomparison Project Phase 5
  - Group Registration: CMP5 Research
  - CMP5 Commercial
  - CMP5 Data Search
- CORDEX**: Coordinated Regional Climate Downscaling Experiment
  - Group Registration: CORDEX Research
  - CORDEX Commercial
  - CORDEX Data Search
- Obs4MIPs**: Observations for Climate Model Inter-comparisons
  - Group Registration: CMP5 Research
  - Obs4MIPs Data Search
- ISI-MIP**: Inter-Sectoral Impact Model Intercomparison on Project
  - Group Registration: ISI-MIP Research
  - ISI-MIP Unrestricted
  - ISI-MIP Data Search

#### User help and related links

For technical support please have a look at the User Tutorials and ESGF FAQ.

If you can not find what you are looking for please contact the ESGF user support: [esgfuser@lists.llnl.gov](mailto:esgfuser@lists.llnl.gov)

Expert users may also want to use the ESGF Search RESTful API: <http://esgf-data.dkrz.de/esgf/search/search/>

#### Federated ESGF-CoG Nodes

- CoG-DE
- ESGF@CEDA
- ESGF@COELLN
- ESGF@ILL
- ESGF@NASAJPL
- ESGF@INM2
- ESGF@NKAESRL
- ESGF@NKAESRL
- ESGF@NKAESRL

**Search & Download Data**

Simple Search  (Go)

Search with options

Browse Projects

This All My Tags

Parent projects (0)

Peer projects (3)

- ESGF-CEDA
- ESGF-ILL
- ESGF-JPL
- ESGF-LU
- ESGF-LU
- ESGF-LU

Child projects (4)

- CMP5-DKRZ
- CORDEX-DKRZ
- ISI-MIP-DKRZ
- Obs4MIPs-DKRZ

Enter Tag

Reset (Go)

Start typing or use the Delete key to show all available tags.

ESGF-DKRZ Tags: None

Last Update: Nov 14, 2016, 2:37 a.m. by Admin User

ESGF sponsors and partners CoG version 3.8.0

Datensuche an einem beliebigen Portal z.B. beim DKRZ ([esgf-data.dkrz.de](http://esgf-data.dkrz.de))

## Schritt 3:

Suche über den Link „Search with options“ (Beispiel: DKRZ Portal Ansicht siehe nächste Folie)

# Datensuche und Datendownload ESGF (4)

„Search with options“  
(hier: DKRZ Portal)

ESGF Node at DKRZ

You are at the ESGF-DATA.DKRZ.DE node

[Home](#) [About Us](#) [Contact Us](#)

[Technical Support](#)

- Project
  - Product
  - Institute
  - Model
  - Experiment
  - Experiment Family
  - Time Frequency
  - Realm
  - CMIP Table
  - Ensemble
  - Variable
  - Variable Long Name
  - CF Standard Name
  - Driving Model
  - Datanode
- CORDEX
- Domain
  - RCM Model
  - Downscaling realisation
- ISIMIP-FT
- Impact Model

Enter Text:    Display  results per page [\[ More Search Options \]](#)

- Show All Replicas  Show All Versions  Search Local Node Only (Including All Replicas)



The search returned 0 results.




Suchfacetten  
zur  
Einschränkung  
der Auswahl

Weitere Einschränkung der  
Auswahl über

- Lokaler Datenknoten (ja/nein)
- Versionen (alle/neueste)
- Replikate (ja/nein)

# Datensuche und Datendownload ESGF (5)

Hosted by  DKRZ  is-enes

Powered by  ESGF  and  G

Welcome, Guest | Login | Create Account

## ESGF Node at DKRZ

Home About Us Contact Us You are at the ESGF-DATA.DKRZ.DE node [Technical Support](#)

Project +

Product +

Institute +

Model +

Experiment +

Experiment Family +

Time Frequency +

Realm +

CMIP Table +

Ensemble +

Variable +

Variable Long Name +

CF +

**Driving Model**

Datanode **5**

esgf1.dkrz.de (16741)

esgf2.dkrz.de (47484)

CORDEX

RCM Model +

Downscaling realisation +

Enter Text:  Search Reset Display 10 results per page [More Search Options](#)

Show All Replicas  Show All Versions  Search Local Node Only (Including All Replicas)

Search Constraints:  Total Number of Results: 64225  
-1- 2 3 4 5 6 Next >>

Please login to add search results to your Data Cart  
Expert Users: you may display the search URL and return results as XML or return results as JSON



- project=CMIP5, model=CanCM4, Canadian Centre for Climate Modelling and Analysis, experiment=10- or 30-year run initialized in year 1970, time\_frequency=mon, modeling\_realm=landice, ensemble=r5IzP1, version=20120601  
Description: CanCM4 model output prepared for CMIP5 decadal1970  
Data Node: esgf2.dkrz.de  
Version: 20120601  
Total Number of Files (for all variables): 6  
[\[ Show Metadata \]](#) [\[ Show Files \]](#) [\[ THREDDS Catalog \]](#) [\[ WGET Script \]](#)
- project=CMIP5, model=CanCM4, Canadian Centre for Climate Modelling and Analysis, experiment=10- or 30-year run initialized in year 1970, time\_frequency=mon, modeling\_realm=landice, ensemble=r5IzP1, version=20120601  
Description: CanCM4 model output prepared for CMIP5 decadal1970  
Data Node: esgf2.dkrz.de  
Version: 20120601  
Total Number of Files (for all variables): 6  
[\[ Show Metadata \]](#) [\[ Show Files \]](#) [\[ THREDDS Catalog \]](#) [\[ WGET Script \]](#)
- project=CMIP5, model=CanCM4, Canadian Centre for Climate Modelling and Analysis, experiment=10- or 30-year run initialized in year 1970, time\_frequency=mon, modeling\_realm=landice, ensemble=r6IzP1, version=20120601  
Description: CanCM4 model output prepared for CMIP5 decadal1970  
Data Node: esgf2.dkrz.de  
Version: 20120601  
Total Number of Files (for all variables): 6  
[\[ Show Metadata \]](#) [\[ Show Files \]](#) [\[ THREDDS Catalog \]](#) [\[ WGET Script \]](#)
- project=CMIP5, model=CanCM4, Canadian Centre for Climate Modelling and Analysis, experiment=10- or 30-year run initialized in year 1970, time\_frequency=mon, modeling\_realm=landice, ensemble=r6IzP1, version=20120601




Weitere  
Einschränkung der  
Suche über:  
4. eine Auswahl  
oder das  
5. Drop-Down-Menü  
einer Suchfacette im  
linken Bereich

Beispiel:

4. Zeige alle Daten-Replikate an
5. Zeige nur Daten auf den DKRZ Datenknoten an

# Datensuche und Datendownload ESGF (6)

Hosted by  **DKRZ**  **is-enes** INTERNATIONAL CENTER FOR CLIMATE DATA INTERPRETATION

Powered by  **ESGF**  **and**  **Globe**

Welcome, Guest | [Login](#) | [Create Account](#)

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**ESGF Node at DKRZ**

Home About Us Contact Us You are at the ESGF-DATA.DKRZ.DE node [Technical Support](#)

- [Project](#)
- [Product](#)
- [Institute](#)
- [Model](#)
- [Experiment](#)
- [Experiment Family](#)
- [Time Frequency](#)
- [Realm](#)
- [CMIP Table](#)
- [Ensemble](#)
- [Variable](#)
- [Variable Long Name](#)
- [CF Standard Name](#)
- [Driving Model](#)
- [Datanode](#)

Search
Reset
Display **10** results per page
[More Search Options](#)

Search Constraints: ✖ esgf1.dkrz.de

Show All Replicas  
  Show All Versions  
  Search Local Node Only (Including All Replicas)

Total Number of Results: 16741  
 -1- 2 3 4 5 6 Next >>

Please login to add search results to your Data Cart  
 Expert Users: you may display the search URL and return results as XML or return results as JSON

1. project=CMIP5, model=MPI-ESM-LR, Max Planck Institute for Meteorology (MPI-M), experiment=1 percent per year CO2, time\_frequency=day, modeling\_realm=atmos, ensemble=r11p1, version=20120314  
 Description: MPI-ESM-LR model output prepared for CMIP5 1 percent per year CO2  
 Data Node: esgf1.dkrz.de  
 Version: 20120314  
 Total Number of Files (for all variables): 270  
[\[ Show Metadata \]](#) [\[ Show Files \]](#) [\[ THREDDS Catalog \]](#) [\[ WGET Script \]](#) [\[ Globus Download \]](#)
2. project=CMIP5, model=MPI-ESM-LR, Max Planck Institute for Meteorology (MPI-M), experiment=1 percent per year CO2, time\_frequency=day, modeling\_realm=atmos, ensemble=r11p1, version=20111006  
 Description: MPI-ESM-LR model output prepared for CMIP5 1 percent per year CO2  
 Data Node: esgf1.dkrz.de  
 Version: 20111006  
 Total Number of Files (for all variables): 90  
[\[ Show Metadata \]](#) [\[ Show Files \]](#) [\[ THREDDS Catalog \]](#) [\[ WGET Script \]](#) [\[ Globus Download \]](#)

Nutzung von Globus online (Web- oder Skript basiertes Herunterladen von Dateien unter Linux, Windows, Mac)

Generierung eines Skriptes zum Herunterladen einer Dateiliste (Linux, Mac oder Windows/Cygwin)

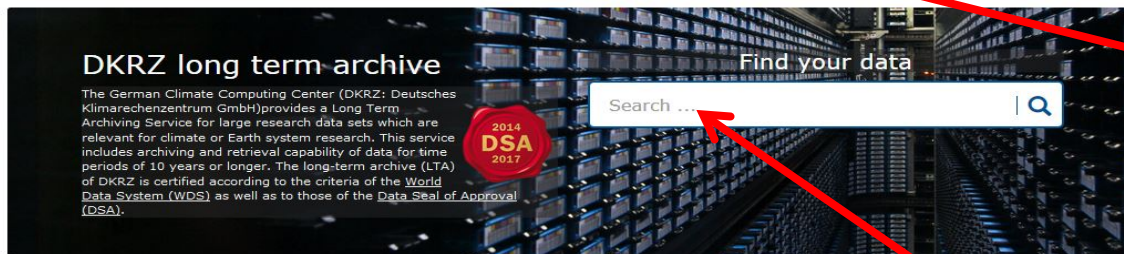
Download einer Datei mit dem Browser



# Datensuche und Datendownload WDCC (1)



Daten Download  
(mit Registrierung)



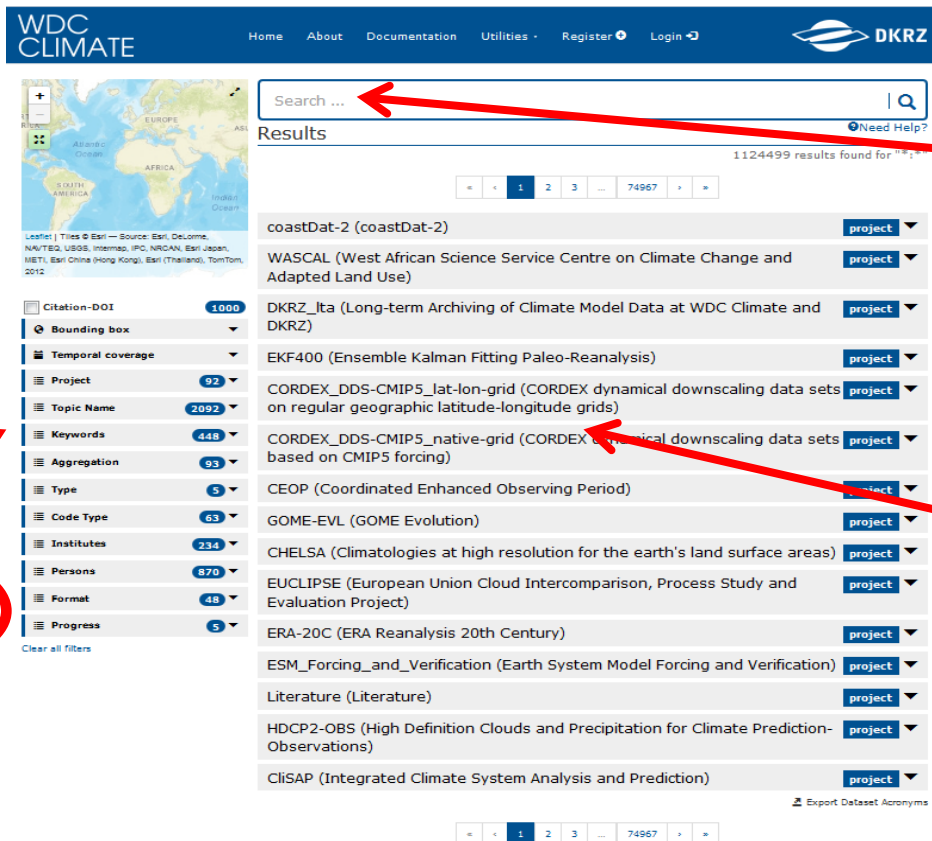
Suche nach Daten  
(ohne Registrierung)

## Services

<p><b>News</b></p> <p><b>CORDEX data archived</b> <span style="float: right;">2.3.2017</span></p> <p>Further CORDEX datasets are archived. These are the dataset groups CXEU44MOEEvHA CXEU44MOEEvHP CXAF44MOEEvHP CXAF44MOEEvHA CXEU11DHEEVR4 CXEU44HMEEvA2 CXEU44HMC5r8A2 CXEU44HMC5HiA2 CXEU44KNECr8RA CXEU44KNECr4RA CXEU44KNEChIRA CXEU44KNEEvRA CXAF44KNECr8RT CXAF44KNECr4RT CXAF44KNEEvRT CXAF44KNEChIRT CXEU44HMC5HiA2 CXAF44MOEEvHP CXEU44KNECr8RA CXEU44KNECr4RA CXEU44KNEChIRA CXEU44KNEEvRA CXAF44KNEEvRT CXEU44MOEEvHP CXEU44HMEEvA2 CXEU44HMC5r8A2 CXAF44KNECr8RT CXAF44KNECr4RT CXEU44KNEChIRT CXEU11DHEEVR4</p> <p>Raw data of paper <span style="float: right;">24.2.2017</span></p>	<p><b>Data access</b></p> <p>The graphical web interface of the DKRZ long-term data archive offers a wide variety of search options based on the stored metadata. These allow a quick discovery of the data desired. Browsing can be done by project, topic, temporal and spatial coverage and some other facets. You can also do further searches by using the free text function. Get started by clicking here.</p> <p>Results from searching and browsing are presented as catalogue records providing essential information and links to further information about each data entity. Data from the long-term archive can be downloaded either by using the graphical user-interface or by the command line tool <code>joblob</code>. Access and download is free of charge. Licenses which regulate the use are provided for all data objects.</p>	<p><b>Data archiving</b></p> <p>The DKRZ provides two different tiers of long-term archiving:</p> <ul style="list-style-type: none"> <li>- LTA DOKU offers long-term archiving for data of DKRZ HPC projects as reference data only. A basic set of metadata has to be supplied in order to describe the data and make it easily findable in the long-term archive.</li> <li>- LTA WDCC is the long-term archiving service in the WDCC. This service is available for DKRZ HPC project data as well as data from external sources. Conditions for this need are to be negotiated. The full set of metadata needs to be provided in order to facilitate interdisciplinary reuse.</li> </ul>	<p><b>Data publication</b></p> <p>The DKRZ offers a DataCite data publication service for long-term archived data. Published Data is granted permanent access by the assigned unique persistent identifier DOI, data and metadata remain unchanged. DataCite DOI data is formally citable in scientific paper publications along with literature citations and can be entered in the data creator's list of scientific publications. For the DOI publication at WDCC data has to meet certain quality requirements. The data publication process is similar to the publication of an article in a scientific journal.</p>
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WDCC-Registrierung  
(<https://cera-www.dkrz.de/WDCC/ui/cerasearch/register>)

# Datensuche und Datendownload WDCC (2)



Freitext Suche

Suche über Facetten

Ergebnisliste

# Datensuche und Datendownload WDCC (3)

The screenshot shows a web interface for selecting projects. At the top, there is a 'Project' header with a count of 92. Below it is a search bar with the placeholder text 'type to filter...' and a 'Sort by' dropdown menu. A 'Show all' link is visible. The main content is a list of projects, each with a checkbox, a project name, and a blue button showing the number of search results. Two red arrows point from annotations to the interface: one points to the checkbox for 'CMS\_MPI (Climate Mo...' and the other points to the '22581' result count button for 'IPCC\_AR4\_ECHAM5/...'.

Project Name	Search Results
IPCC-AR5_CMIP5 (I...	826375
IPCC-DDC_AR5 (IPCC ...	93438
ENSEMBLES (Producti...	28372
IPCC_AR4_ECHAM5/...	22581
CMS_MPI (Climate Mo...	16712
IPCC-DDC_AR4 (IPCC ...	16581
WETTREG-UBA (Szena...	14587
Ensembles_RT3 (Ense...	12778
MILLENNIUM_COSMOS ...	9574
EUCLIPSE (European U...	9508
IPCC-AR4_ECHO-G (IP...	8787
CEOP (Coordinated Enh...	8005

Auswahl über  
direkte Auswahl  
eines Projektes

Anzahl der  
Suchergebnisse

# Datensuche und Datendownload WDCC (4)

**Bounding box** ▲

Contains ▾

Latitude:

-30 40

Longitude:

-80 66

Clear Apply

Datensuche über  
die Angabe einer  
Bounding Box

Datensuche über  
die Angabe einer  
Bounding Box  
interaktiv in der  
Karte



Nur Daten  
mit DOI

Citation-DOI **849**

**Bounding box** ▲

Contains ▾

Latitude:

31.4 71.5

Longitude:

-25.3 66.8

Clear Apply

# Datensuche und Datendownload WDCC (5)

Climatologies at high resolution for the earth's land surface areas (Version 1.0) DOI experiment ▲

<b>Identifier</b>	doi:10.1594/WDCC/CHELSA_v1
<b>Summary</b>	CHELSA_v1.0 ( <a href="http://chelsa-climate.org/">http://chelsa-climate.org/</a> ) is a high resolution (30 arc sec, ~1 km) climate data set for the earth land surface areas. Version 1.0 is a first release. It includes monthly and annual mean <a href="#">more ..</a>
<b>Project</b>	CHELSA (Climatologies at high resolution for the earth's land surface areas)
<b>Authors</b>	Karger, Dirk Nikolaus; Conrad, Olaf; Böhner, Jürgen; Kawohl, Tobias; Kreft, Holger; Soria-Auza, Rodrigo Wilber; Zimmermann, Niklaus E.; Linder, H. Peter; Kessler, Michael
<b>Keywords</b>	<ul style="list-style-type: none"> <li>• Precipitation</li> <li>• Temperature</li> <li>• global climatology</li> </ul>
<b>Creation Date</b>	2016-07-14T16:23:48Z
<b>Date range</b>	1979-01 TO 2013-12
<b>Bounding Box</b>	Longitude: -180.00, 180.00 Latitude: -90.00, 90.00
<b>Additional Infos</b>	<a href="#">CHELSA_v1_readme</a>
<b>Progress</b>	completely archived

[Entry acronym: CHELSA\_v1] [Entry id: 3504396] [ Score: 25.97957]

CHELSA  
(project) ⓘ 🔍

CHELSA\_v1  
(experiment) ⓘ 🔍

Details in einem  
Ergebnisdatensatz  
anzeigen

# Datensuche und Datendownload WDCC (6)

Climatologies at high resolution for the earth's land surface areas (Version 1.0) DOI experiment

**CHELSA\_v1\_readme.pdf** additional\_info

**Summary** README: Climatologies at high resolution for the earth's land surface areas (Version 1.0)  
**Project** CHELSA (Climatologies at high resolution for the earth's land surface areas)  
**Code Type** NONE  
**Creation Date** 2016-08-25T10:56:31Z  
**License** For scientific use only  
**Progress** completely archived  
**Datasize** 193.13 kB (197764 byte)  
**Format** pdf

[Entry acronym: CHELSA\_v1\_readme] [Entry id: 3504468] [Score: 1.6020381]

**Chelsa climatology 1979-2013 july precipitation version 1.0** dataset

**Summary** see experiment summary  
**Project** CHELSA (Climatologies at high resolution for the earth's land surface areas)  
**Topic Name** precipitation\_amount-where\_land (sum within month)  
**Aggregation** mean over years comment:climatology  
**Code Type** NONE  
**Creation Date** 2016-07-14T17:47:44Z  
**Date range** 1979-01 TO 2013-12  
**Bounding Box** Longitude: -180.00, 180.00 Latitude: -90.00, 90.00  
**License** Creative Commons Attribution 4.0 International (CC BY 4.0)  
**Progress** completely archived  
**Datasize** 3.48 GB (3733258611 byte)  
**Format** GeoTIFF  
**Header** {  
 "description": "\Vwork\bm0146Vceraop  
 VMean\_july\_precipitation\_1\_771780572784609743.rec",  
 "driverShortName": "GTiff",  
 "driverLongName": "GeoTIFF",  
 "files": [  
 "\Vwork\bm0146Vceraop\VMean\_july\_precipitation\_1\_771780572784609743.rec"  
 ]  
 }  
 more ..

[Entry acronym: CHELSA\_prec\_7\_1979-2013\_v1] [Entry id: 3504440] [Score: 1.5634074]

CHELSA (project) ? Q CHELSA\_v1 (experiment) ? Q CHELSA\_prec\_7\_1979-2013\_v1 (dataset) ?

Chelsa climatology 1979-2013 june precipitation version 1.0 dataset

Chelsa climatology 1979-2013 march precipitation version 1.0 dataset

Chelsa climatology 1979-2013 may precipitation version 1.0 dataset

Daten Download

# Datensuche und Datendownload WDCC (7)

WDC CLIMATE

Home About Documentation Utilities Register Login

DKRZ

Please login to CERA database

Username

Password

Login

data@dkrz.de FAQ Terms of use Impressum WDCC service status Version 1.0.7 27-Feb-2017

Powered by CERA

Angabe WDCC Username  
und WDCC Password für  
den Daten Download

# WDCC (8)

Download 'CHELSA\_prec\_7\_1979-2013\_v1'

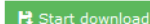
Period #	Start date	End date	Date format	Increment	# of timesteps
<input type="checkbox"/> 1	1979-01	1979-01	YYYY-MM	1 month(s)	1

Download type  Complete dataset  Part of dataset

Date range

start date

end date

 Start download

**Please note:**

It may take some time before the download actually starts because most of the datasets available from our database are stored on tapes and have to be transferred to a disk cache first. Please be patient as this process may take a while depending on the data size and the current workload of our servers.

Auswahl des Datensatzes  
aus der Liste

Auswahl ob der komplette  
Datensatz oder Teile des  
Datensatzes herunter  
geladen werden sollen



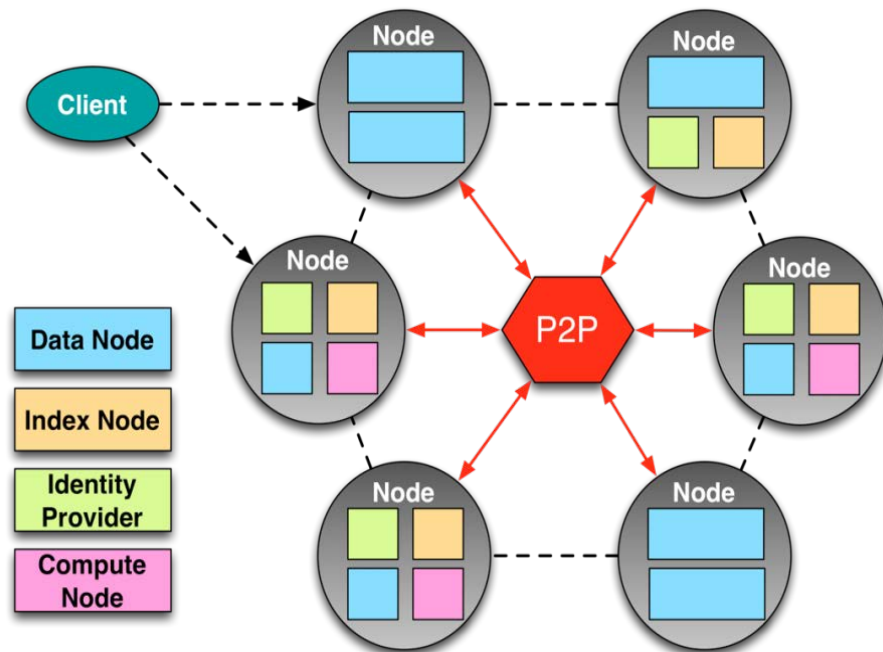
# Earth System Grid Federation (ESGF)



# ESGF System Architektur

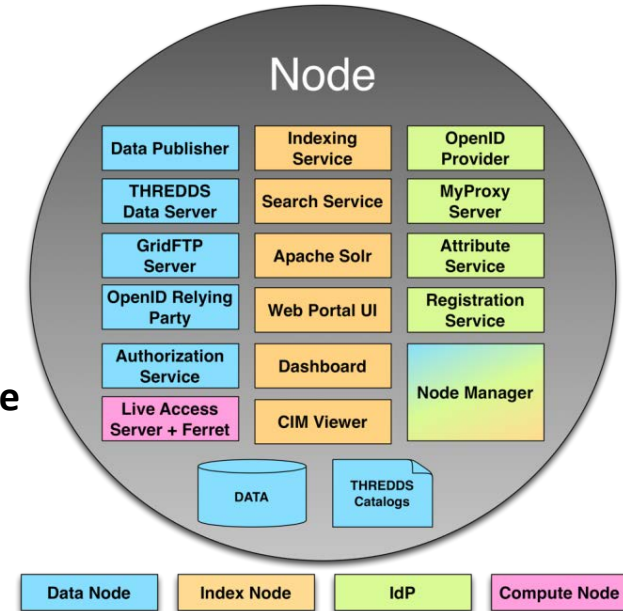
ESGF ist ein System von System von verteilten und vernetzten Knoten  
Die Knoten tauschen sich dynamisch aus durch ein Punkt-Zu-Punkt Protokoll (Peer-To-Peer,P2P)

- Verteilt: Daten und Metadaten werden publiziert, gespeichert und angeboten von verschiedenen Zentren ("Nodes")
- Vernetzt: Knoten tauschen sich aus zur Angleichung der gemeinsamen Service, Protokolle und Schnittstellen, und sie etablieren ein Netz aus sich gegenseitig vertrauenden Verbindungen
- Dynamisch: Knoten können sich dynamisch im Netz an-oder abmelden – Globale Daten und Services tauschen sich kontinuierlich aus



# ESGF Software Struktur

- **ESGF Software basiert auf der Integration von verschiedenen Programmen und Schnittstellen:**
  - Open Source Programme (Postgres, Tomcat, Solr)
  - Geodaten Server (Thredds Data Server, Live Access Server)
  - Industrie Standards: OpenSSL, X509, OpenID, REST, ...
  - Eigene ESGF Programme
- **Programmkomponenten können in 4 Funktions-("Knoten"-)Bereiche eingeteilt werden:**
  - Datenknoten: gesicherte Datenpublikation und Zugriff
  - Indexknoten: Aufbau Metadaten Index und Suche
  - Sicherheits Server: Benutzer Authentifikation und Gruppenzugehörigkeit
  - Computer Knoten: Analyse und Visualisierung
- **Knoten können in jeder Kombination installiert werden, je nach Anforderung**
- **ESGF Software ist frei auf GitHub (<https://github.com/ESGF>) verfügbar und unterliegt der BSD Lizenz**



# ESGF Eigenschaften

ESGF ist ein signifikanter Schritt vorwärts im Management und Zugriff weltweiter Klimadaten:

- Einrichtung der ersten globalen und verteilten Datenbank für PB von Klimamodell- und Beobachtungsdaten
- Die Daten können über ein verteiltes System mit einzelnen Suchoptionen (Facetten) über eine RESTful Schnittstelle gefunden werden
- Der Datendownload kann über Skripte und Programme ausgeführt werden
- Benutzer müssen sich nur einmal registrieren und werden dann an allen Knoten akzeptiert
- Die Architektur ist anpassbar (z.B. für größere Modellauflösungen oder Instrumentendichte), sie kann erweitert werden (z.B. andere Formate, neue Anbieter und andere Arten von wissenschaftlichen Daten)
- ESGF hat eine Zusammenarbeit im Bereich der Offenen Programme etabliert über alle Grenzen hinweg

Projekt	Datensätze	Dateien	Größe (GByte)
CMIP5	164.538	10.258.939	4.020.000
CORDEX	91.815	998.307	72.720
CMIP3	29.402	82.343	33.720
CORDEX-Adjust	639	13.778	17.950
GeoMIP	757	31.787	24.620
CORDEX-Adjust	639	13.778	17.950
LUCID	318	28.602	13.690
ISI-MIP Fast Track	23.861	33.027	7.990
ISIMIP2 Phase a	8.768	15.329	2.430
ISIMIP2 Phase b	16.030	23.309	6.370
PMIP3	361	8.335	2.700
TAMIP	1.536	36.480	1.240
input4MIPs	1.128	2.261	842,13
EUCLIPSE	41	2.571	337,37

### ESGF Statistik

Datensätze (alle Projekte): 788.631  
 Dateien (alle Projekte): 15.761.100  
 Gesamtdatenmenge: 4.420.000 GB  
 Anzahl Indexknoten: 10  
 Anzahl Datenknoten: 29

# Liste (Datensuche + Datendownload I)

ESGF: [Portal am DKRZ](#)

Suche und Download am ESGF Portal:

- Erstellung einer OpenID mit Name + Password
- Beitritt zu einer Gruppe (Berechtigung zum Download) z.B. ‚CORDEX Research‘
- Datensuche mit der ESGF Suchoberfläche (Volltextsuche)
- Datendownload über:
  - Einzeldatei per Browser
  - Einzeldatei per OpenDAP
  - Dateien über wget Skript (unter Linux)

# Liste (Datensuche + Datendownload II)

WDCC: [Langzeitarchiv des DKRZ \(CERA Datenbank\)](#)

Vorgehen am WDCC Portal:

- Erstellung eines Accounts mit Name + Password
- Datensuche mit der WDCC Suchoberfläche (Volltextsuche)
- Datendownload über:
  - Einzeldatei per Browser
  - Einzeldatei mit dem Java Programm jblob (Windows + Linux)
  - Dateien per Browser
  - Dateien mit dem Java Programm jblob (Windows + Linux)