IS-ENES2 Final GA
Paris, France, January 16-18, 2017

# Linking with Climate Impact Communities: Needs and Role of C4I portal?

**CERFACS**, KNMI, University of Cantabria, SMHI, Wageningen University & Research, CNRS-IPSL, CMCC, STFC, DMI, INHGA

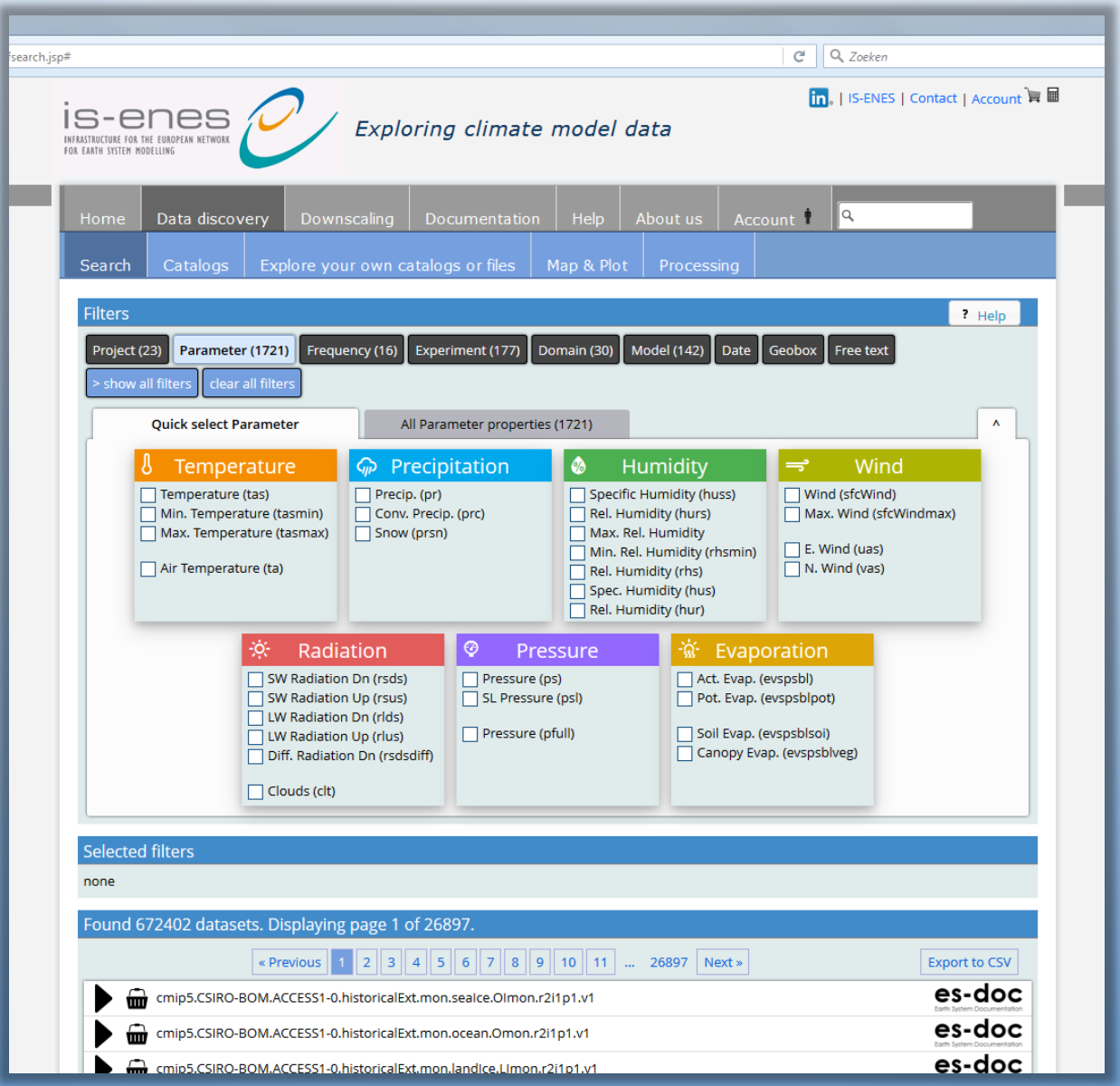
**Christian Pagé**

- Platform for impact researchers to explore climate data and perform analysis
- In-depth documentation and guidance
- Use cases from impact researchers
- Perform calculations / Data processing – WPS
- Integration with ESGF
  - Search
  - THREDDS Catalogs
  - OpenDAP
  - Security

# http://climate4impact.eu/

# http://climate4impact.eu/

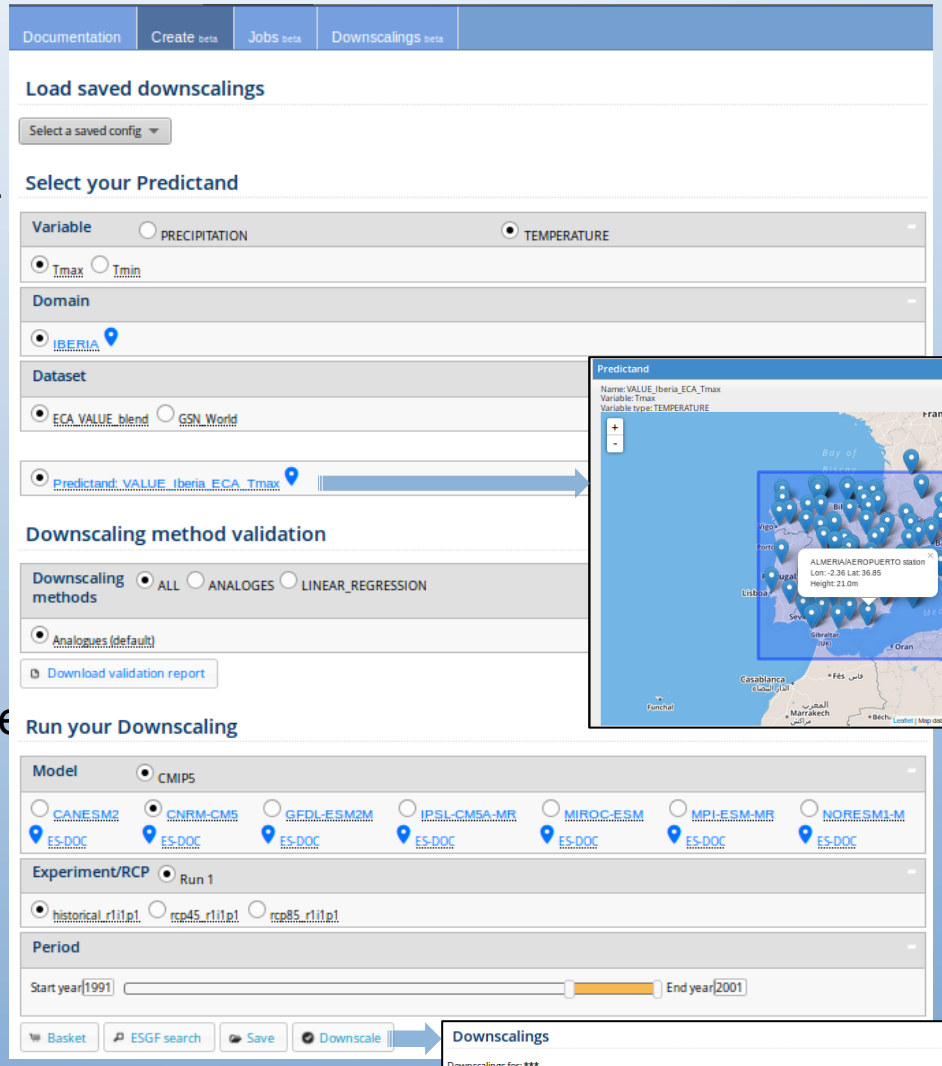
## Search using ESGF Search API – faceted search



# http://climate4impact.eu/

## Online on-demand calculations

- C4I Statistical Downscaling REST API
  - Services provided by the University of Cantabria Downscaling Portal
  - Connected to ESGF
  - Friendly user interface on C4I
- C4I Climate Indices
  - All ETCCDI indices and simple statistics available
  - Native Python open-source ICCLIM software (fully validated against R.climdex)
  - Expandable to climate indicators as well




***ETCCDI***: The joint CCI/CLIVAR/JCOMM Expert Team (ET) on Climate Change Detection and Indices

# C4I: Evolution since 2009 (1st year of IS-ENES)

- Designed initially as a European Portal derived from National Use Cases gathering
  - Which impact communities? Focus changed and narrowed
    - Climate and Impact Research Scientists
    - Climate Change Impact Modellers
    - Boundary Workers
- Documentation and Guidance
  - Much appreciated by users
  - Updated and Maintained
- 2012-2013: end of IS-ENES (1): a Platform/Services oriented approach
- Significant increase in ergonomics since 2014
  - Search Interface
  - User Basket
  - Streamlining the User Experience from Search/Discovery to Plot & Download

# C4I: Evolution since 2009 (1st year of IS-ENES)

- Processing Services
  - Downscaling: Delegation to Cantabria's Downscaling Portal
  - Climate Indices Calculations (icclim)
  - Convert & Subset
- Integration of CORDEX data
- CLIPC 2013-2016
  - APIs to access the C4I Services
  - Climate Indices Calculations
  - Combine, ...
- Computation near the Data
  - ESGF CWT
  - Ophidia
  - Even more delegation is foreseen...
- Authentication, security and authorization have always been a challenge

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**http://climate4impact.eu/**

# C4I: Access Statistics

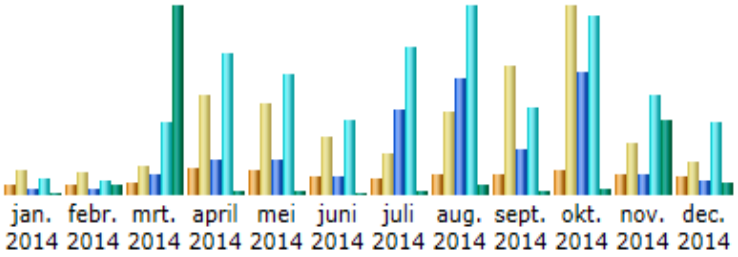
## Samenvatting

| | |
|---|---|
| **Rapportageperiode** | Maand jan. 2014 |
| **Eerste bezoek** | NA |
| **Laatste bezoek** | 31 jan. 2014 - 23.26 |

| | Unieke bezoekers | Aantal bezoeken | Pagina's | Hits | Bytes |
|---|---|---|---|---|---|
| Bekeken verkeer * | **563** | **1383** (2.45 bezoeken/bezoeker) | **6983** (5.04 Pagina's/bezoek) | **19320** (13.96 Hits/bezoek) | **728.81 MB** (539.62 KB/bezoek) |
| Niet-bekeken verkeer * | | | **6213** | **6930** | **104.63 MB** |

* „Niet bekeken" is verkeer dat gegenereerd werd door robots of wormen, of respons met een speciale HTTP-statuscode.

## Maandelijkse historie




| Maand | Unieke bezoekers | Aantal bezoeken | Pagina's | Hits | Bytes |
|---|---|---|---|---|---|
| jan. 2014 | 563 | 1383 | 6983 | 19320 | 728.81 MB |
| febr. 2014 | 545 | 1241 | 5554 | 17232 | 7.13 GB |
| mrt. 2014 | 673 | 1591 | 24038 | 86236 | 137.26 GB |
| april 2014 | 1478 | 5589 | 42211 | 171530 | 2.03 GB |
| mei 2014 | 1384 | 5137 | 40781 | 144785 | 1.62 GB |
| juni 2014 | 947 | 3259 | 21808 | 89293 | 1.14 GB |
| juli 2014 | 848 | 2282 | 102249 | 177092 | 2.29 GB |
| aug. 2014 | 1092 | 4599 | 140328 | 227415 | 6.58 GB |
| sept. 2014 | 1154 | 7170 | 55258 | 104552 | 1.89 GB |
| okt. 2014 | 1351 | 10549 | 146683 | 216271 | 3.18 GB |
| nov. 2014 | 1095 | 2820 | 24876 | 121148 | 54.49 GB |
| dec. 2014 | 939 | 1814 | 17142 | 88401 | 8.23 GB |
| Totaal | 12069 | 47434 | 627911 | 1463275 | 226.54 GB |

EGU 2014
2X Increase

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# C4I: Access Statistics

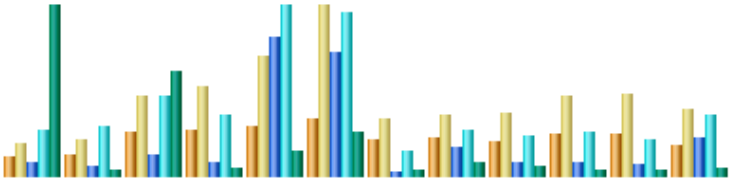
## Samenvatting

| | |
|---|---|
| **Rapportageperiode** | Maand jan. 2015 |
| **Eerste bezoek** | 01 jan. 2015 - 01.16 |
| **Laatste bezoek** | 31 jan. 2015 - 23.24 |

| | Unieke bezoekers | Aantal bezoeken | Pagina's | Hits | Bytes |
|---|---|---|---|---|---|
| Bekeken verkeer * | **1002** | **1644** (1.64 bezoeken/bezoeker) | **43149** (26.24 Pagina's/bezoek) | **142263** (86.53 Hits/bezoek) | **48.08 GB** (30668.11 KB/bezoek) |
| Niet-bekeken verkeer * | | | **80506** | **82125** | **3.66 GB** |

* „Niet bekeken" is verkeer dat gegenereerd werd door robots of wormen, of respons met een speciale HTTP-statuscode.

## Maandelijkse historie




| Maand | Unieke bezoekers | Aantal bezoeken | Pagina's | Hits | Bytes |
|---|---|---|---|---|---|
| jan. 2015 | 1002 | 1644 | 43149 | 142263 | 48.08 GB |
| febr. 2015 | 1059 | 1855 | 32931 | 153179 | 1.90 GB |
| mrt. 2015 | 2186 | 3923 | 64718 | 247721 | 29.51 GB |
| april 2015 | 2255 | 4430 | 41533 | 187479 | 2.46 GB |
| mei 2015 | 2490 | 5920 | 429910 | 525534 | 7.25 GB |
| juni 2015 | 2843 | 8358 | 383313 | 505838 | 12.60 GB |
| juli 2015 | 1806 | 2819 | 15752 | 81211 | 2.01 GB |
| aug. 2015 | 1907 | 3027 | 91892 | 145005 | 4.20 GB |
| sept. 2015 | 1688 | 3099 | 42509 | 123899 | 2.82 GB |
| okt. 2015 | 2074 | 3924 | 43705 | 139625 | 2.08 GB |
| nov. 2015 | 2049 | 4019 | 39164 | 115474 | 1.85 GB |
| dec. 2015 | 1497 | 3317 | 122402 | 191622 | 2.50 GB |
| Totaal | 22856 | 46335 | 1350978 | 2558850 | 117.26 GB |

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# C4I: Access Statistics

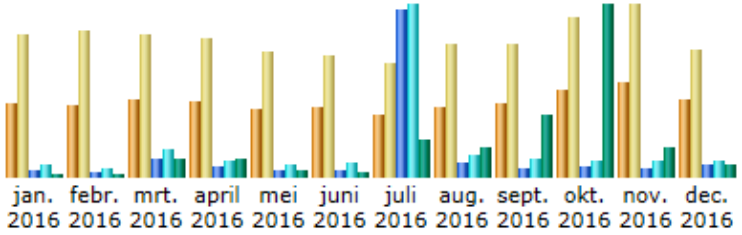
## Samenvatting

| | |
|---|---|
| **Rapportageperiode** | Maand jan. 2016 |
| **Eerste bezoek** | 01 jan. 2016 - 00.00 |
| **Laatste bezoek** | 31 jan. 2016 - 23.54 |

| | Unieke bezoekers | Aantal bezoeken | Pagina's | Hits | Bytes |
|---|---|---|---|---|---|
| Bekeken verkeer * | **1556** | **3063** (1.96 bezoeken/bezoeker) | **193052** (63.02 Pagina's/bezoek) | **319625** (104.35 Hits/bezoek) | **4.21 GB** (1441.05 KB/bezoek) |
| Niet-bekeken verkeer * | | | **159418** | **161593** | **3.08 GB** |

* „Niet bekeken" is verkeer dat gegenereerd werd door robots of wormen, of respons met een speciale HTTP-statuscode.

## Maandelijkse historie

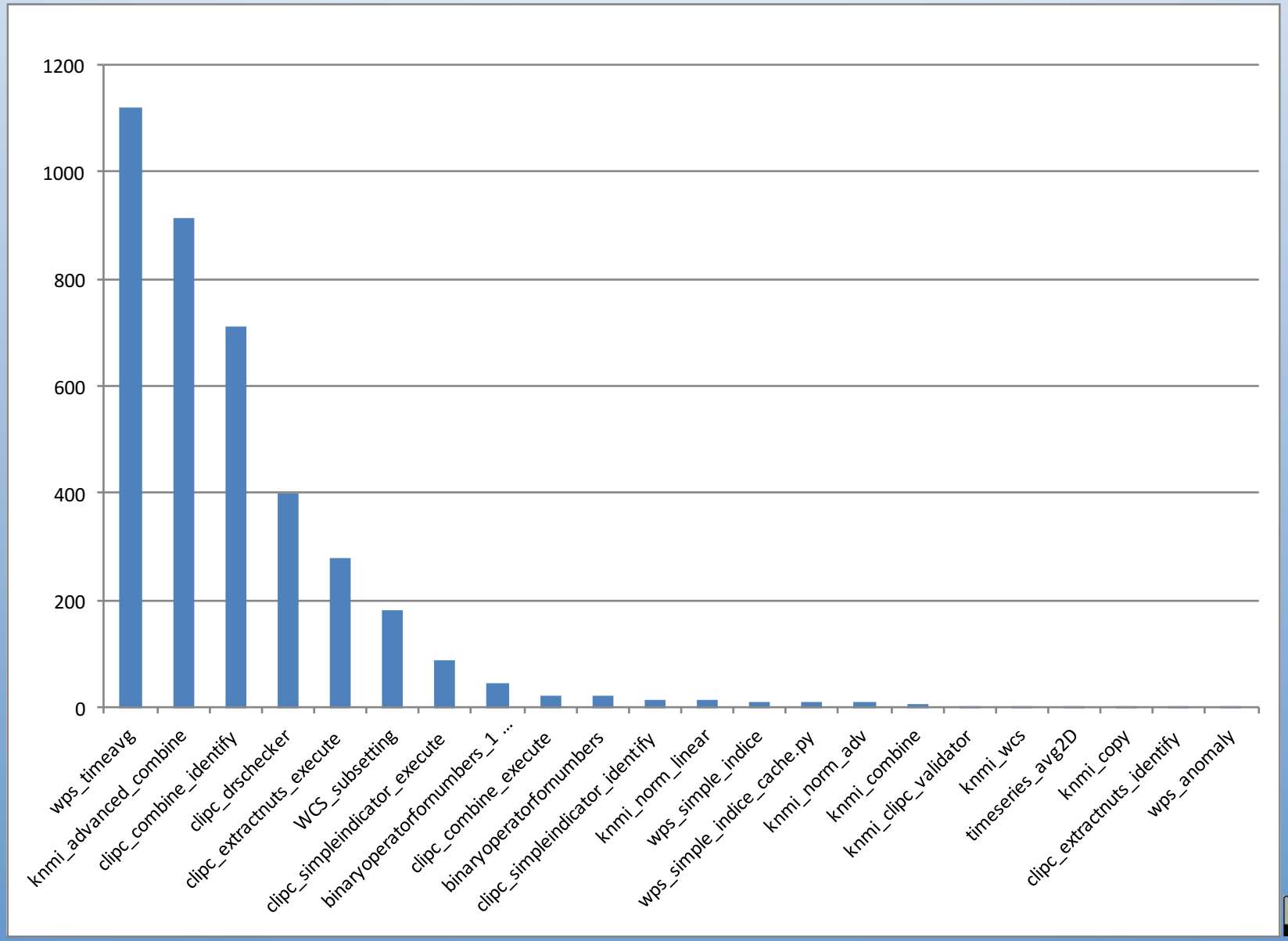



**CLIPC effect 03/2016+**

- Much larger datasize
- Not accounted in user statistics

| Maand | Unieke bezoekers | Aantal bezoeken | Pagina's | Hits | Bytes |
|---|---|---|---|---|---|
| jan. 2016 | 1556 | 3063 | 193052 | 319625 | 4.21 GB |
| febr. 2016 | 1547 | 3113 | 106549 | 231020 | 3.55 GB |
| mrt. 2016 | 1652 | 3044 | 490162 | 763530 | 20.60 GB |
| april 2016 | 1633 | 2959 | 299685 | 453191 | 22.00 GB |
| mei 2016 | 1462 | 2670 | 192229 | 334389 | 6.88 GB |
| juni 2016 | 1488 | 2594 | 192661 | 368976 | 4.84 GB |
| juli 2016 | 1332 | 2427 | 4516235 | 4650347 | 43.40 GB |
| aug. 2016 | 1509 | 2848 | 373426 | 576147 | 33.43 GB |
| sept. 2016 | 1592 | 2852 | 257662 | 481896 | 71.68 GB |
| okt. 2016 | 1861 | 3395 | 258896 | 417680 | 198.58 GB |
| nov. 2016 | 2042 | 3680 | 254387 | 422926 | 34.77 GB |
| dec. 2016 | 1667 | 2707 | 316666 | 442173 | 13.89 GB |
| Totaal | 19341 | 35352 | 7451610 | 9461900 | 457.83 GB |

# C4I: Processes Access Statistics



# C4I: Linking with Climate Change Impact Communities

- Dissemination
  - European and International Scientific and Technical Conferences
  - National Level
  - Other Project Meetings
  - Social and Professional Networks
- Students training and evaluation
- User Needs Gathering workshops
- Online Surveys

# C4I: Linking with Climate Change Impact Communities

Needs identified at the end of IS-ENES (1)

*What is needed for the e-impact portal? (IS-ENES/CIRCLE2)*

- *Guidance* is required about the selection of which data or model to use
- *Indices* are required
- *Error/bias correction* of models should be provided
- *Maps* are needed for different regions
- Set of *use cases* selected for the e-impact portal should be *updated*
- *Other data* (e.g. discharge data, CO2) should be made available
- Access to *Ensembles* data

# C4I: Linking with Climate Change Impact Communities

- Still a Gap?
  - Non-specialists users
    - More guidance and online dynamic help needed
    - Careful on Terminology gap: Glossary is part of the answer
    - Navigation is not always easy for end users
    - CLIPC portal is an example of a step toward less specialized users, using C4I services
  - Dissemination should be more extended
  - Functionalities and Services still need a lot of R&D
    - Many needs are known but not all are accounted yet

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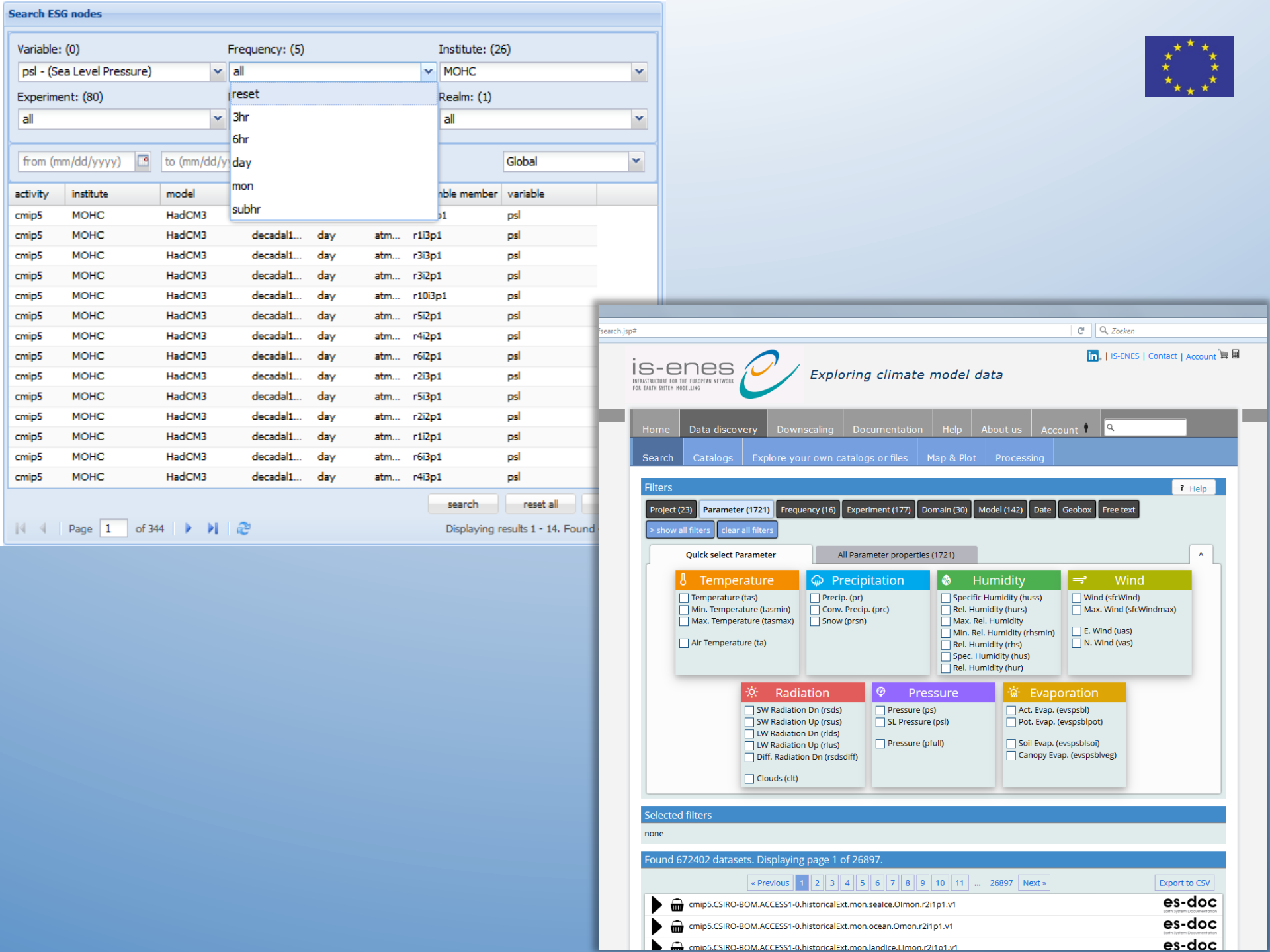
CAPACITIES


Search ESG nodes
Variable: (0)
psl - (Sea Level Pressure)
Frequency: (5)
all
reset
3hr
6hr
day
mon
subhr
Institute: (26)
MOHC
Experiment: (80)
all
Realm: (1)
all
from (mm/dd/yyyy)
to (mm/dd/yy
Global
activity
institute
model
nble member
variable
cmip5 MOHC HadCM3 psl
cmip5 MOHC HadCM3 decadal1... day atm... r1i3p1 psl
cmip5 MOHC HadCM3 decadal1... day atm... r3i3p1 psl
cmip5 MOHC HadCM3 decadal1... day atm... r3i2p1 psl
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cmip5 MOHC HadCM3 decadal1... day atm... r4i3p1 psl
search
reset all
Page 1 of 344
Displaying results 1 - 14. Found
is-enes
Exploring climate model data
IS-ENES | Contact | Account
Home
Data discovery
Downscaling
Documentation
Help
About us
Account
Search
Catalogs
Explore your own catalogs or files
Map & Plot
Processing
Filters
Help
Project (23)
Parameter (1721)
Frequency (16)
Experiment (177)
Domain (30)
Model (142)
Date
Geobox
Free text
> show all filters
clear all filters
Quick select Parameter
All Parameter properties (1721)
Temperature
Temperature (tas)
Min. Temperature (tasmin)
Max. Temperature (tasmax)
Air Temperature (ta)
Precipitation
Precip. (pr)
Conv. Precip. (prc)
Snow (prsn)
Humidity
Specific Humidity (huss)
Rel. Humidity (hurs)
Max. Rel. Humidity
Min. Rel. Humidity (rhsmin)
Rel. Humidity (rhs)
Spec. Humidity (hus)
Rel. Humidity (hur)
Wind
Wind (sfcWind)
Max. Wind (sfcWindmax)
E. Wind (uas)
N. Wind (vas)
Radiation
SW Radiation Dn (rsds)
SW Radiation Up (rsus)
LW Radiation Dn (rlds)
LW Radiation Up (rlus)
Diff. Radiation Dn (rsdsdiff)
Clouds (clt)
Pressure
Pressure (ps)
SL Pressure (psl)
Pressure (pfull)
Evaporation
Act. Evap. (evspsbl)
Pot. Evap. (evspsblpot)
Soil Evap. (evspsblsoi)
Canopy Evap. (evspsblveg)
Selected filters
none
Found 672402 datasets. Displaying page 1 of 26897.
« Previous 1 2 3 4 5 6 7 8 9 10 11 ... 26897 Next »
Export to CSV
cmip5.CSIRO-BOM.ACCESS1-0.historicalExt.mon.sealce.Olmon.r2i1p1.v1
cmip5.CSIRO-BOM.ACCESS1-0.historicalExt.mon.ocean.Omon.r2i1p1.v1
es-doc

IS-ENES Website

ENES Portal Interface for the Climate Impact Communities (Prototype)

Home | Data discovery | Map & Plot | Documentation | Help | About us | Log in

# ENES Portal Interface for the Climate Impact Communities

Welcome to the ENES **Portal Interface for the Climate Impact Communities (EPICIC)**, oriented towards climate change impact modellers, impact and adaptation consultants, as well as other experts using climate change data. The portal is in its evaluation phase, contact us if you have comments or would like to participate.

Here you will find **access to data** and *quick looks* of global climate models (GCM) scenarios, as well as some regional climate model (RCM) and downscaled higher resolution climate data. The portal provides data transformation tooling for **tailoring data** to your needs and **mapping & plotting** capabilities. All using standardised interfaces and common data processing tools to access and process data, properly described with standardised metadata.

**Guidance** on how to use climate scenarios, **documentation** on the climate system, frequently asked questions (FAQ) and **examples** in several impact and adaptation themes (Use Cases) are presented and described, along with the steps required to go from the GCM data to the impact model input data (workflow).


*Click on one of these images to go to a specific climate change impact and adaptation theme.*

edit

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*Exploring climate model data*

Home | Data discovery | Downscaling | Documentation | Help | About us | Sign in

## IS-ENES climate4impact portal

Welcome to the IS-ENES climate4impact portal, oriented towards climate change impact modellers, impact and adaptation consultants, as well as other experts using climate change data.

Here you will find access to data and *quick looks* of global climate models (GCM) scenarios, as well as regional climate model (RCM) and downscaled higher resolution climate data. The portal provides data transformation tooling for tailoring data to your needs and mapping & plotting capabilities.

Guidance on how to use climate scenarios, documentation on the climate system, frequently asked questions and examples in several impact and adaptation themes are presented and described, along with the steps required to go from GCM data to impact model input data.

The climate4impact portal is now operational (15 April 2014): read more.


*Click on one of these images to go to a specific climate change impact and adaptation theme.*

The IS-ENES project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration.