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### **Overview of ECSN Activities**

Abstract not available

## Activities of the European Climate Support Network

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## Objective ECSN

The objective of ECSN, the *European Climate Support Network*, is to support its (25) members in their climate practices in order to better serve the European user community with climate products and services for the benefit of the *environment, safety, economy and health*



## Mission statement ECSN:

*“Our members are liable and acknowledged providers of sustainable high quality and climate reference services, tailored to the users needs, thereby acting as interface between research and users and bridging the national to the European scope. We exploit our most important skill; the production of high quality observational climate data sets to be used for climate monitoring and modelling”*

Strategy document EAC , Longyearbyen, June 2008

Our members are supported by a *portfolio of activities* as:

Major climate input in the *biennial conferences*:

ECAC (European Conference on Applied Climatology, together with EMS, Amsterdam, 2008, Zürich 2010)

DMWS (Data management Workshop, Austria 2007, Copenhagen 2009)

ECAM (European Conference on Applied Meteorology, together with EMS, Toulouse 2009)

Our members are supported by a *portfolio of activities* as:

Our core business is executing *projects*, with a strong data/observations component and possibly in collaboration with EU-projects

Research community: curiosity, projectperiod

NMHS's: sustainable infrastructure

Our members are supported by a portfolio of activities as:

Executing *projects*, collaboration with EU projects as:

→ ECA&D<sub>ECSN</sub>-ENSEMBLES<sub>EU</sub>-MILLENNIUM<sub>EU</sub>

→ EUMETGRID<sub>ECSN</sub>-EURO4M<sub>EU</sub>

ECSM-EuCLIS

PEP725<sub>ECSN-COST725</sub> phenological database

Our members are supported by a portfolio of activities as:

*Collaboration* with organisations as:

WMO-WGCRM-RAVI

WMO-CCI ET on the Rescue, Preservation and Digitization of  
Climate Records

European Environment Agency

EU Framework Programmes

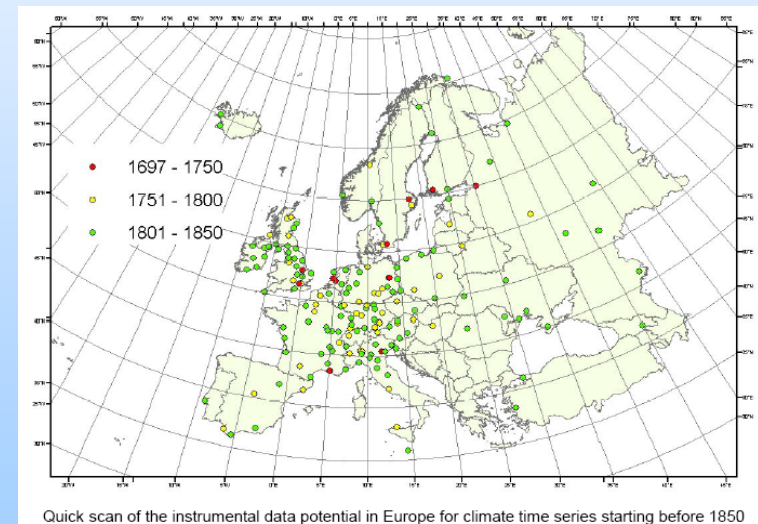
EUMETNET Programmes PB-OBS and SRNWP



## New initiatives ECSN:

Establishing a EUMETNET framework for Climate Services on Climate Change Information

HIST-EU Dataset



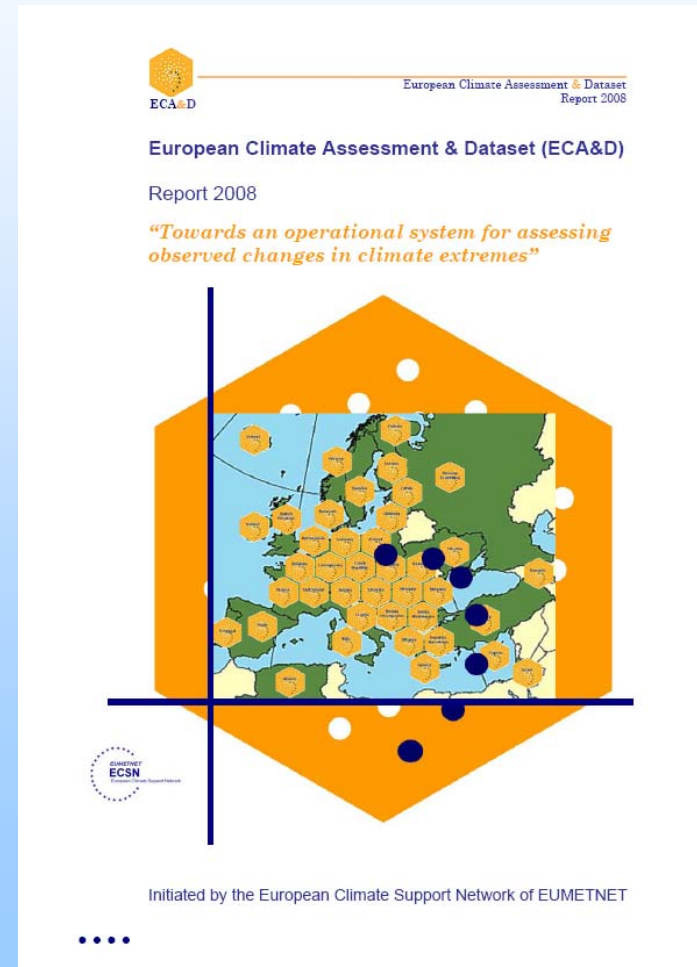
## ECSN project **ECA&D**

Pan European dataset with *daily* and ca *25 km* geographical resolution

Nucleus for *RAVI-RCC on climate data*

Extended with the ENSEMBLES gridded dataset (E-OBS), serves as baseline dataset for EU project *EURO4M*

ECA&D dataset updated monthly;  
E-OBS annually > monthly.



## ECSN project ECA&D

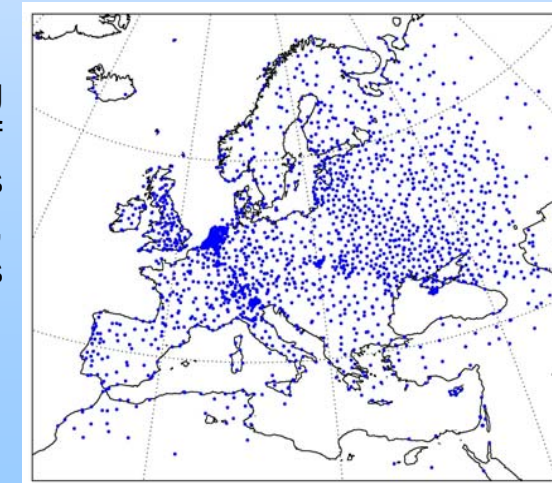
The screenshot shows the ECA&D website with a navigation menu (Home, FAQ, Daily data, Indices of extremes, Publications, Links) and several informational sections:

- Home:** Welcome to the website of the European Climate Assessment & Dataset (ECA&D) project. Presented are indices for monitoring and analysing changes in climate extremes, as well as the daily dataset needed to calculate these indices. ECA&D is initiated by the European Climate Support Network ECSN and supported by the Network of European Meteorological Services EUMETNET.
- What's new?:** The database is updated until: Jul 31, 2009. July 2009 - The ECA&D database has seen a **major update**. This leads to the use of **changed ECA&D station numbers** throughout this website, so be careful when using programs that use certain station numbers. [Click here for more background information](#). Please report any problems or suggestions to the project team ([eca@knmi.nl](mailto:eca@knmi.nl)). July 2009 - Time series of different indices for a single station can now be plotted at once, see ["Time series plots"](#). [All news items](#)
- E-OBS Gridded dataset:** E-OBS version 2.0 has been released including the possibility to download chunks of about 15 years. The full dataset covers the period 1950-2008. The possibility to access the dataset through OPeNDAP/DODS has been added as well. This daily gridded observation dataset has been developed as part of the [ENSEMBLES](#) project (EU-FP6).
- Participants and data:** Today, ECA&D is receiving data from [54 participants](#) for [53 countries](#) and the ECA dataset contains 10748 series of observations at [2896 meteorological stations](#) throughout Europe and the Mediterranean (see Daily data > [Data dictionary](#) for an overview of all available series). Participation to ECA&D is open to anyone maintaining daily station data. If you want to join please contact us.
- Regional Climate Centre (RCC):** The ECA&D infrastructure is used in several related EUMETNET activities. [EUROGRID](#) will produce gridded datasets based on ECA&D. ECA&D provides such RCC-services for daily station data and extremes indices data in WMO Region VI (Europe and the Middle East).
- EU-FP6 MILLENNIUM project:** [MILLENNIUM](#) is a European Union project under FP6. It aims to answer a single question: Does the magnitude and rate of 20th Century climate change exceed the natural variability of European climate over the last millennium? As part of this project, [monthly aggregated station datasets](#) for precipitation and temperature indices have been developed on the basis of ECA&D.

54 participants, 53 countries



2967 stations, providing  
11111 time series of  
 $27.8 \times 10^9$  observations  
of tg, tx, tn, rr, pp, hu,  
cc, sd, ss




## ECSN project ECA&D

### Indices of extremes

For every ECA&D station, a total of 38 indices have been calculated. Each index describes a particular characteristic of climate change (both changes in the mean and the extremes). A core set of 21 indices follows the definitions recommended by the CCI/CLIVAR/JCOMM Expert Team on Climate Change Detection and Indices ([ETCCDI](#)). These indices are calculated in a similar way for other regions of the world. An additional set of 17 indices highlights particular characteristics of climate change in Europe.

To learn more about the meaning and the way each index is calculated see the [Indices dictionary](#).

The menu below allows you to view time series plots for each index and station, to view maps of trends over Europe for each index, to view maps of index anomalies (with respect to the normal period 1961-1990) for a particular year or season, or to view climatology maps. Every item of the menu offers the option to download the results.

<a href="#">Time series plots</a> (all available series)	updated until: 2009
<a href="#">Trend maps</a> (only series that passed homogeneity tests  )	updated until: 2008
<a href="#">Anomaly maps</a> (all available series)	updated until: 2009
<a href="#">Climatology maps</a> (all available series)	updated until: 2009

Examples illustrating the use of these indices are provided for the following [GEO](#) themes:

- [Disasters](#) - [Health](#) - [Energy](#) - [Water](#) - [Ecosystems](#) - [Agriculture](#) - [Biodiversity](#) -

## ECSN project ECA&D

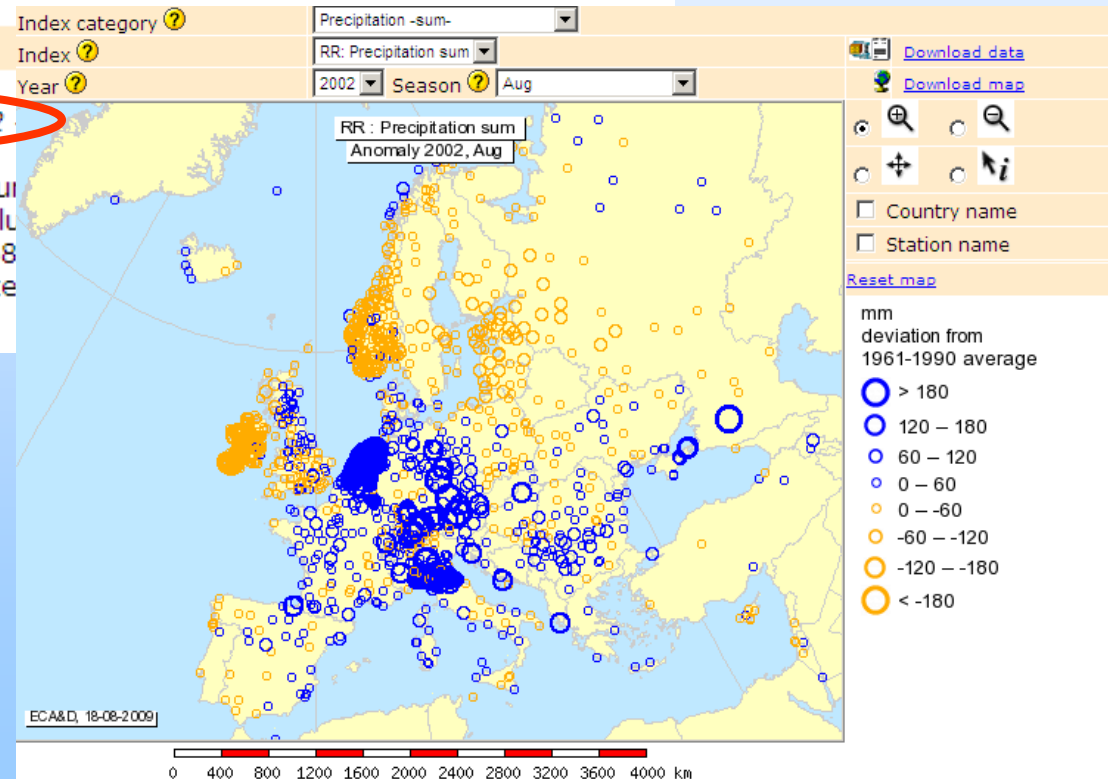
### Water

Climate change indices relevant for the [GEO](#) theme *Water* are provided below. The examples illustrate the aspect of climate change that is highlighted by each index.

#### RR - Precipitation sum

*Floods along Central European rivers, summer 2002*

During the summer of 2002 catastrophic floods occurred. Precipitation amounts in this season show peak values (Germany) where the observed rainfall amount is 68 mm above the 1961-1990 average (click on the button to obtain the graph). Note that the overall trend is drying (red line).



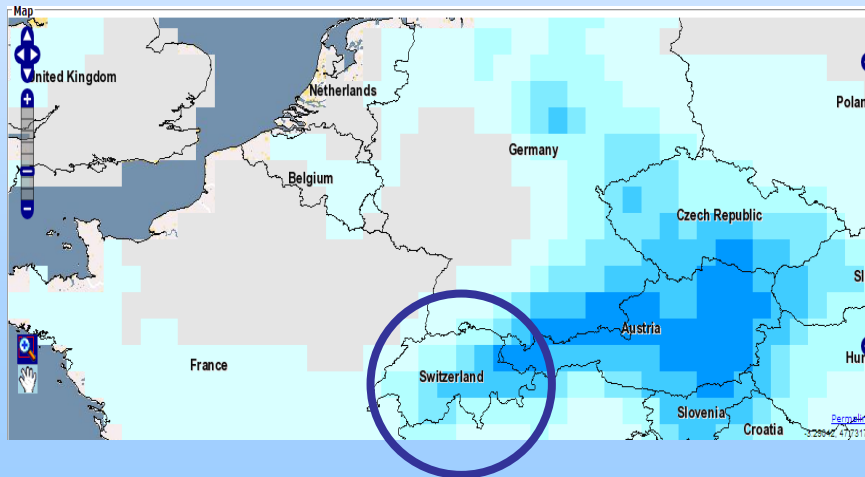
Anomaly sum RR, August 2002



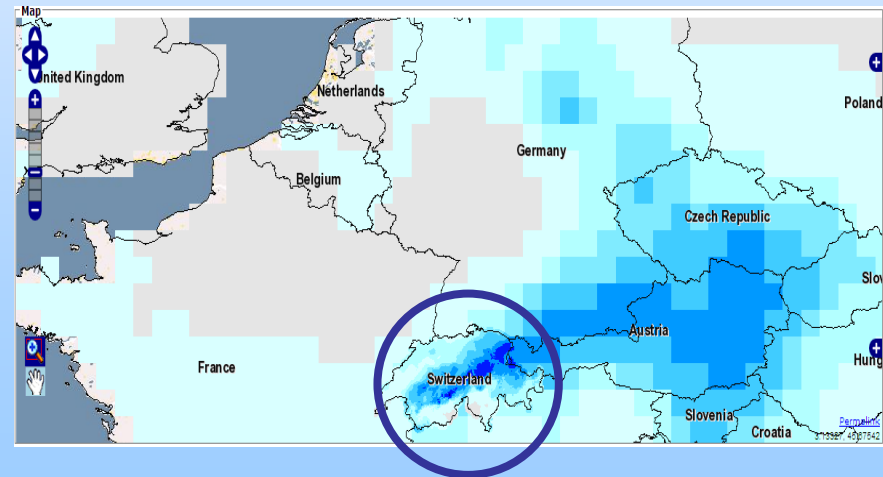
## ECSN project ECA&D GRID

Collaboration with EU-project EURO4M

National datasets tiled to European coverage with sub daily and ca  
1-10 km geographical resolution



ECA&D dataset: grid for 11 August 2002



EUMETGRID: ECA&D plus MeteoSwiss dataset

## New initiative: establishment of a EUMETNET Framework for Climate Services on Climate Change Information - **RATIONALE**

*Monitoring* of climate is one of the *core tasks* of NMHS's.

Services on '*climate proofing*' of the society.

Summarizing how the weather has been in the past does *not provide the complete answer*.

New initiative: establishment of a EUMETNET Framework for  
Climate Services on Climate Change Information – **INSPIRATION**

WCC-3

Dedicated workshop on CC Services (KNMI, 10-11 Sept 2009),  
touching on:

Identification of relevant climate services from the user  
perspective;

Description of successful (or less successful) cases and best  
practices;

Collaborations

Both WCC3 and KNMI workshop illustrated the need and  
timeliness for plans to improve and enhance regional and local  
climate change services: ***user orientation is leading!***



## New initiative: establishment of a EUMETNET Framework for Climate Services on Climate Change Information – **RECOMMENDATION**

### Establishment of a EUMETNET Working Group

Exploring how to improve the coordination of the existing institutions and infrastructure in the domain of Climate Services

Could we define a basic set of products that each NMS could offer? For example:

Information on past climate (station and gridded data)

Information on possible future climates (local and regional climate scenarios 50-100 years)

Information gathering on climate (monitoring networks for essential climate variables)

## some addresses:

**ECSN:** <http://www.eumetnet.eu/>

**ECA&D:** <http://eca.knmi.nl/>

**EUMETGRID:** <http://www.e-grid.eu/public/>

**ECSM:** <http://dwd.de/>

**CCS Workshop:** [www.knmi.nl/climatescenarios/workshop09](http://www.knmi.nl/climatescenarios/workshop09)





**On behalf of all ECSN members**

**Thank you !**

