

## ECSN Quarterly Report January-March 2008

Prepared by the ECSN Manager and the Project Leaders

### General remarks

The program manager ECSN (Aryan van Engelen) and the projectleader S-EUROGRID (Christer Persson) attended the EUMETNET Programme Managers Meeting (Brussels, March 5, 2008), organised by the “new” co ordination office with Steve Noyes as executive director EUMETNET and Marja-Liisa Ahtiainen as his assistant. After short presentations (15) of the running EUMETNET programmes, the meeting addressed the consequences of the new EIG construction of EUMETNET for the programmes and discussions took place how the management and coordination of EUMETNET could be improved.

During this first quarter many preparatory activities were carried out for upcoming ECSN (or related) events: the final HRT-GAR project workshop (Vienna, April 2008), the S-EUROGRID workshop (Göteborg, April 2008), the upcoming EAC (Longyearbyen, June 2008) and ECAC (Amsterdam, September 2008), the establishment of a RAVI RCC pilot network with ECSN projects as (major) input, the EU proposal READY (EU Workprogramme 2008, potential ECSN collaborative project) and the Pan European Phenological Database, potential new ECSN project (EAC, Longyearbyen 2008)

### RAVI matters (DWD)

Main activities of the RA VI WG on Climate-related Matters comprised:

- measures to define and implement a RA VI pilot RCC network,
- the analysis of RA VI Members’ requirements in the European climate monitoring,
- the active support to a MedDARE initiative and
- active support to the 1st RCOF (Regional Climate Outlook Forum) in RA VI (SEE-COF: Southeastern Europe climate outlook forum).

The ECSN played and plays an important role in the realisation of the above mentioned activities, both on the project/activities level (ECSN activities as nucleus for RA VI initiatives) as well as through the existing network of people, which makes communication more easy.

RA VI meanwhile issued its Strategic Plan for the period 2008-2012, and the next RA VI Session in September 2009 will be the appropriate timing to align the WG CRM’s ToR with the expected results of the Strategic Plan. Hence, the role of ECSN w.r.t. the RA VI Strategic Plan needs to be discussed on the occasion of the next EAC meeting.

### Showcase EUROGRID (SMHI)

In the beginning of 2008 two more participating institutes, representing Slovenia and UK, have joined the project work and all except two of the present sixteen participating institutes have agreed on and signed the MoU between SMHI and the participant.

Gridded demo datasets of moderate resolution for Europe (two datasets) and high resolution for individual European countries (eight datasets) are available within the project. Focus is on temperature and precipitation for the years 2002-2003. The inconsistency between the different datasets regarding methodology, variables, time period, resolution in time and space etc. has to be accepted within the Showcase. Yet, for a future full-scale EUROGRID it will be very important to address this problem, as the need for a consistent high-resolution dataset covering Europe is evident. At the product section of the project web site [www.e-grid.eu](http://www.e-grid.eu) both MapView and DataView products based on these datasets are available.

GMES (Global Monitoring for Environment and Security) is becoming increasingly important to support Europe’s goals regarding sustainable development and its environmental and security policies and EEA (European Environment Agency) has expressed requirements for high-quality and higher resolution European datasets. In this context Showcase EUROGRID has identified a clear need for an integrated framework for gridded climate information and services, taking advantage of the many existing initiatives within the community of the NM(H)S’s including the EMI, and the many projects (e.g. FP6/7) with a limited lifetime, and guaranteeing a sustainable long-term maintenance of the available data, providing the basis for sustainable services and a sustainable, consistent provision of information. It is regarded as urgent that EUMETNET at an

early stage establishes a programme as a full-scale EUROGRID in order to create EMI-based continuous and developing services and thereby avoid the establishment of parallel and overlapping organisations and duplication of work. Preparations for a possible full-scale EUROGRID proposal to EUMETNET Council have been performed.

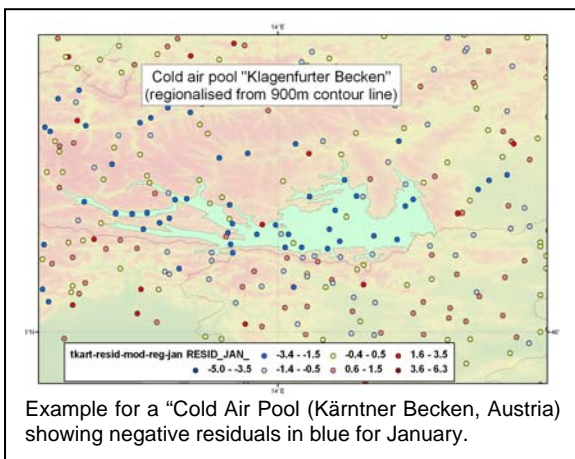
#### Meetings during 2008:

Project meeting: 22-23 April, 2008, SMHI, Gothenburg, Sweden.

Planned Final Meeting: December 2008. Place and exact time still not decided.

#### HRT-GAR (ZAMG)

In January 2008, 24-25 a small meeting has been organised to include and profit of results



Example for a "Cold Air Pool (Kärntner Becken, Austria) showing negative residuals in blue for January.

and findings of two recently elaborated regional climatologies, the Climate Atlas of Croatia (Zaničević et al.) and the Climatology of the Greater Lombardy Area (GLA).

Since then the work on the realisation of the final gridded temperature fields has started including a number of investigated large scale effects (dependency of air temperature on elevation including inversions during winter, large scale continentality effect - dependency on longitude -, global radiation effect from inclination of sunbeam -dependency on latitude-, regional scale dependency of air temperature on distance to the sea considering advection of air masses) and smaller scale effects (local scale dependency of air temperature on distance to the sea -land-sea brise circulation effect, lake effect, urban effect, cold air pools effect, slope effect).

By end of March the work on preparation of the final project workshop (projected for April 10-11, 2008) have been intensified.

#### Generate Climate Monitoring Products GCMP / European Climate Information System EuCLIS / European Climate System Monitoring ECSM (DWD)

The GCMP platform <http://www.gcmp.dwd.de> still continues working in its quasi-operational mode without any problems. GCMP is kept in a frozen mode. This means that existing products will be continued, changes of national web sites will be changed in GCMP also, but no additional products will be added.

GCMP's successor platform EuCLIS is still not ready for operational use. Eventually it turned out that there are massive technical problems in running the EuCLIS software on the cluster environment of the new DWD web portal. A new technical concept is currently under expert assessment. It is, however, not clear at the moment, whether EuCLIS will be ready for operational use in the near future.

To avoid the risk of a further considerable delay of the start of an operational climate monitoring portal for the whole RA VI as a basis for a Regional Climate Centre (RCC) function on climate monitoring, DWD decided to develop a pragmatic interim solution. The working title of this new interim solution is "ECSM = European Climate System Monitoring". This new system is not as sophisticated and flexible as EuCLIS, but it provides the main functionalities to display a fixed minimum set of standard climate monitoring products of RA VI Members via the web. In particular, the interim solution ECSM allows to provide access to climate monitoring maps of the standard elements temperature, precipitation and sunshine duration (monthly and annual means, anomalies and normal values, national and for whole Europe), as well as texts of significant weather events from all contributing countries. Furthermore, the RA VI Bulletin and some further links are made available. On the other hand, ECSM will not provide any administration tools for the members, display of metadata, sorting functions etc. like EuCLIS.

The new interim solution ECSM, however, will still be an improvement compared to the present quasi-operational system GCMP because it has an improved navigation and can serve as a preliminary operational solution for the whole Region until to be replaced by the full EuCLIS system. Like GCMP, ECSM administrates URLs, which are managed manually by DWD staff.

Before extending ECSM to the whole RA VI, it is intended to start filling the system with the respective products of the ECSN member commu-



A questionnaire with six questions was sent to all 24 member countries and 22 countries (92 %) have answered the questionnaire. The questions and distribution of answers are:

**Q1:** Is the measured value (in mm) from a day with just dew/rime included in the monthly precipitation amount (Y / N)? Answers: 16 Y, 6 N.

**Q2:** Is a day with dew/rime included in the monthly summary of number of days with precipitation (Y / N)? Answers: 13 Y, 9 N.

**Q3:** If Yes (Q2): Is number of days with dew/rime A) reported separately or B) included in no. of days with rain, drizzle, snow etc. (A / B)? Answers: 4 A, 8 B, 1 neither A nor B.

**Q4:** How large daily precipitation amount do you allow to be caused by just dew/rime [X (in mm)] (e.g. 0,3 mm, 0,5 mm, etc.). Answers: 0.1-0.2 mm: 4, 0.3-0.4 mm: 4, 0.5-0.6 mm: 2, >=0.6 / No limit: 6.

**Q5:** Is snow depth (>0) recorded when the ground is covered by solely rime or hoar frost (Y/N)? Answers: 3 Y, 17 N, 2 with no procedure

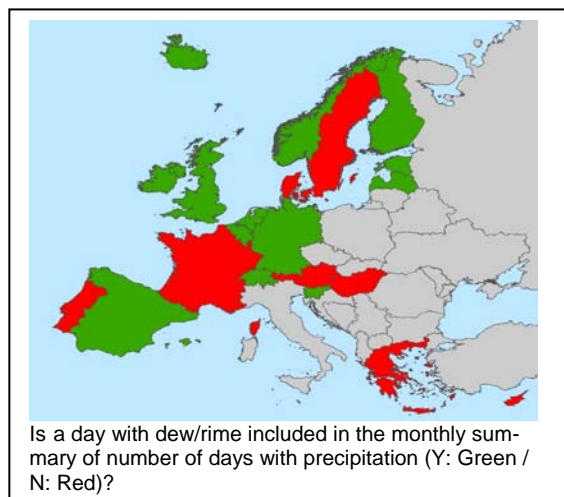
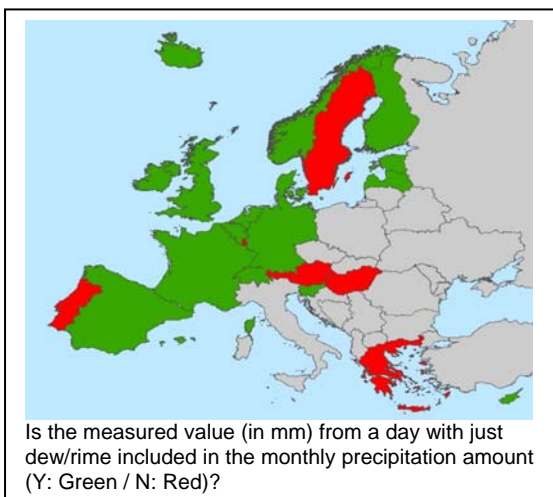
**Q6:** Is state of ground (synop code E') recorded if the ground is covered by solely rime or hoar frost (not snow or ice) (Y/N)? Answers: 3 Y, 16 N, 3 with no procedure.

Table 1 shows that most countries do not include rime / hoar frost in their snow cover statistics. However, there is more dispersion (60 vs 40%) amongst the ECSN countries whether dew/rime should be included in the statistics of number of days with precipitation. Figure Q1 and Q2 illustrate that there are no clear regional distribution

in how dew/rime is treated, and that inhomogeneities in e.g. number of days with precipitation will appear across national borders. The influence of these discrepancies across borders on products in e.g. European Climate Atlas or gridded datasets, depend of course of number of days with recorded dew and rime. As an example;- for a Norwegian airport (Rygge, close to Oslo and the Swedish border) days with dew & rime comprise almost 10% of the total number of days with precipitation  $\geq 0.1$  mm during the normal period 1961-90. Thus the different European statistical treatment of dew and rime may lead to fictive regional climate differences.

Country	Q1	Q2	Q3	Q4	Q5	Q6
Austria	N	N		-	N	N
Belgium	Y	Y	B	0.3	N	N
Cyprus	Y	N		0.5	Y	N
Denmark	Y	N		0.1	N	N
Estonia	Y	Y	A	0.3	N	N
Finland	Y	Y	B	0.3	N	N
France	Y	N		No lim.	N	N
Germany	Y	Y	A	No lim.	N	N
Greece	N	N		-	N	N
Hungary	N	N		-	N	N
Iceland	Y	Y	-	No lim.	-	-
Ireland	Y	Y	B	No lim.	N	N
Latvia	Y	Y	B	0.1	N	N
Luxembourg	N	N		-	N	N
Netherlands	Y	Y	B	0.1	N	N
Norway	Y	Y	A	0.5	Y	Y
Portugal	N	N		-	-	-
Slovenia	Y	Y	B	0.3	N	N
Spain	Y	Y	A	1.5	Y	Y
Sweden	N	N		-	N	-
Switzerland	Y	Y	B	0.1	N	N
United Kingdom	Y	Y	B	No lim.	N	Y

Survey of answers on Dew & Rime Questionnaire



## European Climate assessment & Dataset (KNMI)

The European Climate Assessment & Dataset (ECA&D) project presents 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.

Today, ECA&D has 53 participants from 41 countries and the ECA dataset contains 7033 series of observations at 2317 meteorological stations throughout Europe and the Mediterranean. These series with daily data are updated on a monthly basis to provide an up-to-date view of European climate.

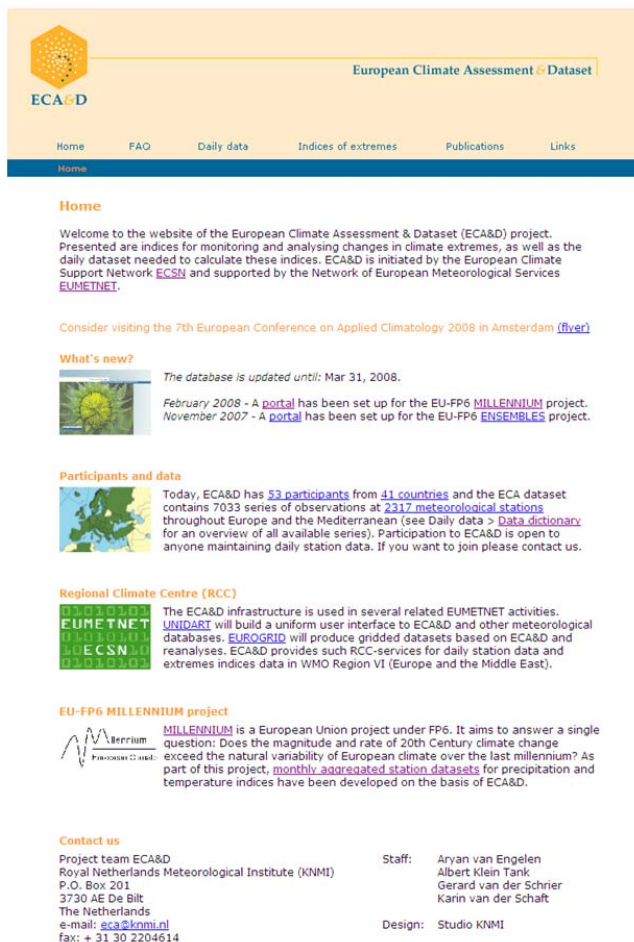
Currently, the ECA&D platform is being upgraded to an operational level. Simultaneously with this upgrade, a transition to the latest software is taking place. Recent additions to the functionality of the ECA&D website are the portal to the EU-FP6 ENSEMBLES project, where high-resolution gridded daily datasets for Europe can be downloaded. More recently, a portal

for the EU-FP6 MILLENNIUM project has been added where yearly, seasonal and monthly data for the ECA&D stations can be downloaded.

The aim for the near future is that submission of data for the participants to the ECA&D project is made easier and more interactive, which is coupled to an effort the extent the coverage of the data in data-scarce areas. Furthermore, the analysis of trends in climate indices will be made more interactive.

## Millennium – European climate of the last millennium (KNMI)

On the last Annual meeting of Millennium (Mallorca, 10-15 March 2008) two posters have been submitted that are related to ECA&D and analyses of indices, calculated on basis of the daily observational series in ECA&D: 1) Lisette Klok and Aryan van Engelen (KNMI), Ice break-up dates, a proxy for winter temperature? 2) Aryan van Engelen, European Climate Assessment and Dataset for Millennium, in: European Climate of the Last Millennium, Millennium Milestone Meeting 2, 13<sup>th</sup>-15<sup>th</sup> arch 2008, Poster Abstracts, ed.Giles Young and Danny McCarroll, SUSTDEV-204-3.1.4.1, The past climate and its dynamics 017008.



The screenshot shows the homepage of the European Climate Assessment & Dataset (ECA&D) website. The header includes the ECA&D logo and navigation links: Home, FAQ, Daily data, Indices of extremes, Publications, and Links. The main content area is titled 'Home' and contains several sections: a welcome message, a notice about the 7th European Conference on Applied Climatology 2008, a 'What's new?' section with a date update (Mar 31, 2008) and project announcements for February 2008 and November 2007, a 'Participants and data' section with a map of Europe and a description of the dataset (53 participants, 41 countries, 7033 series, 2317 stations), a 'Regional Climate Centre (RCC)' section mentioning EUMETNET, UNIDART, and EUROGRID, and an 'EU-FP6 MILLENNIUM project' section with a logo and a description of the project's goals. A 'Contact us' section at the bottom provides contact information for the project team and staff.

Links to:

ECSN, EUMETNET,

Millennium, ENSEMBLES

RCC, UNIDART, EUROGRID