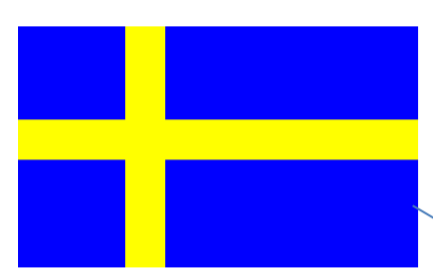


Progress of European Data Rescue Activities – developments during the last two years

Ingeborg Auer, Barbara Chimani, Silke Adler (ZAMG), Michael Begert (MeteoSwiss), Anna Frey (FMI), Jose A. Guijarro (AEMET), Monika Lakatos (OMSZ), Hermann Mächel (DWD), Marc Prohom (Meteocat), Dubravka Rasol (DHMZ), Miroslav Řepka (CHMI), Weine Josefsson (SMHI)

Introduction

Long-term datasets are of great importance for climate research. They allow describing past climate variability highly resolved in space and time, are important for re-analyses and model evaluation. Especially early instrumental series are the connecting link to the paleoclimatic community. In 2011 the EUMETNET data rescue portal has been launched presenting European data rescue activities. So far 23 EUMETNET members plus the Catalanian and the Georgian meteorological Services take part in this activity. The poster wants to summarize the progress achieved during the last two years.



Sweden

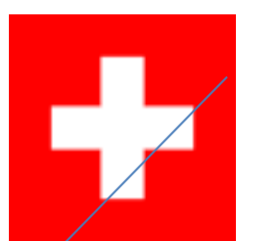
SMHI has a digitizing project running for many years. Most Swedish observations are in digital form since 1961 and can also be found in the Meteorological database called MORA, including most variables and for every three hours. Quite a lot of stations are available as monthly values for temperature and precipitation since the start of observations 1859/1860.

A substantial amount of digitized data prior to 1961 is not yet available in MORA, but a project has started to put these data into MORA.

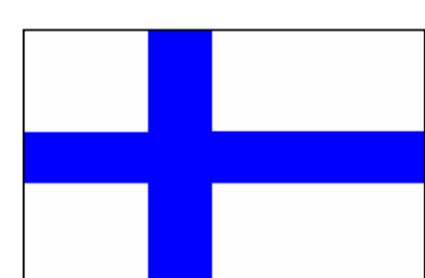
Progress

Sweden, Switzerland, Spain, Finland, Hungary, Croatia, Germany and Czech Republic reported about their progress during the last two years. For details please have a look at <https://www.zamg.ac.at/dare/activities/data-inventory>

Switzerland



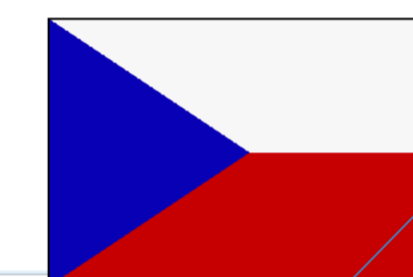
MeteoSwiss has run several digitizing projects within the last decades. The latest one called DigiHom aimed to digitize all temperature (Tmean, Tmin, Tmax), precipitation and sunshine duration series of the Swiss National Basic Climatological Network (Swiss NBCN) back to 1864. The Swiss NBCN combines the most important climate stations of Switzerland and consists of 29 climate and 46 additional precipitation stations. Based on an internal requirement analysis with respect to completeness of available digitized data and homogenization purposes a set of stations/variables were defined to be digitized next. An internal project was started where two people digitize the values beside their operational work. MeteoSwiss will continue to digitize station data step by step.



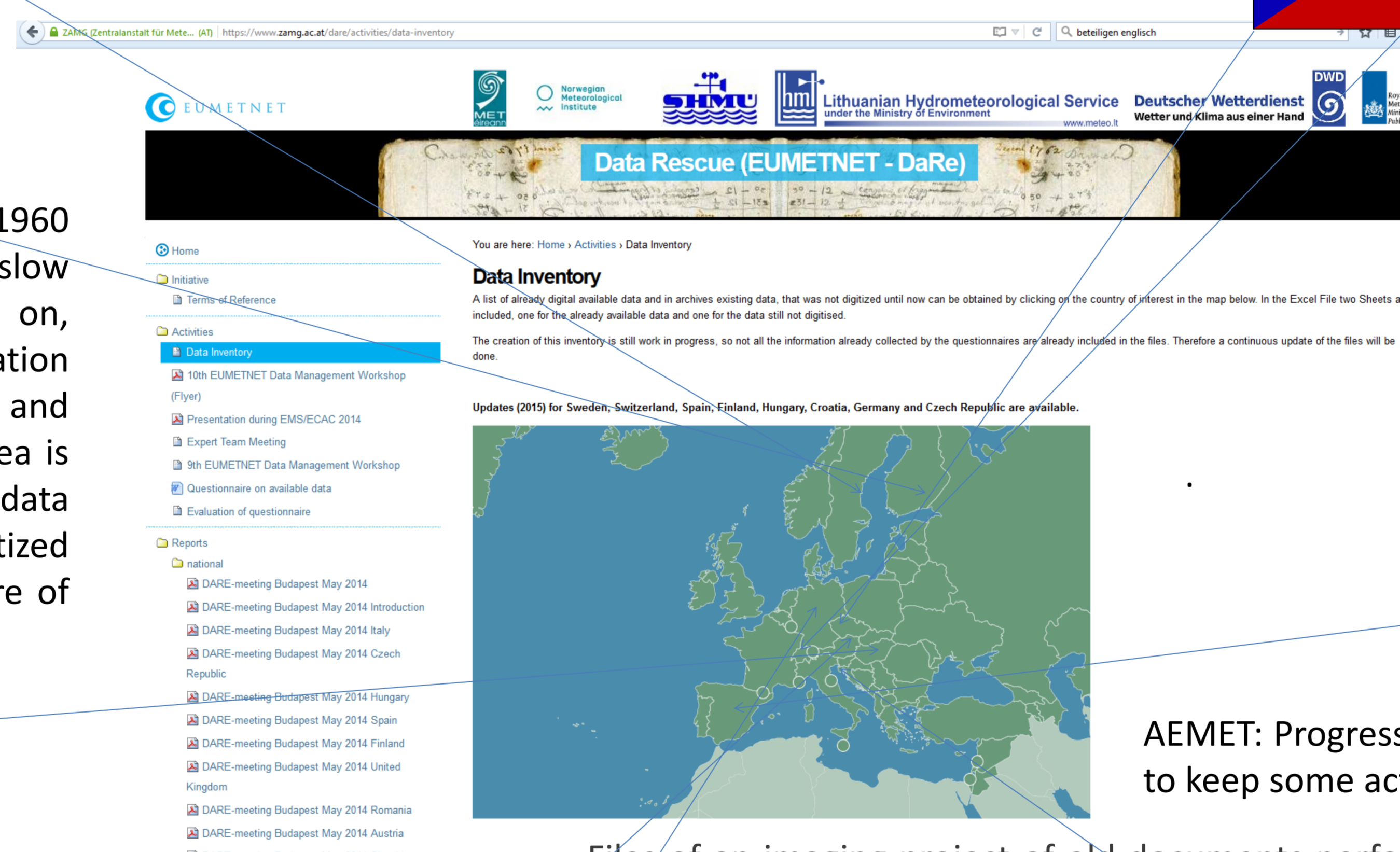
Finland

Most Finnish observations are in digital form since 1960 and are available in operational database. Some slow progress for the older datasets has been going on, basically concerning digitizing of historical precipitation forms. It is planned to start a more controlled and organized process concerning historical data. The idea is to have organized documentation about the types of data to be digitized. The rescue of the data will be prioritized based mainly on the customer needs and big picture of the importance (defined by experts opinions).

Czech Republic



Almost all precipitation and temperature data of very long series (with some exceptions) have been digitized and quality control has started. Hundreds of photos of archived historical reports (books) have been made in Brozany central archive. Many books and reports were found that have not been digitized yet there (particularly stations with shorter series). All regional offices had some money for digitization this year, but grant is finished now. This will cause problems in the future.



Hungary

The progress of the digitization depends on the availability of resources. Records of several climate stations were digitized in the project "Complex risk management system for agriculture" at the Hungarian Meteorological Service in 2014. The observers contributed also to this activity beyond their operational tasks. Hungarian Meteorological Service will continue data rescue step by step on regular basis.

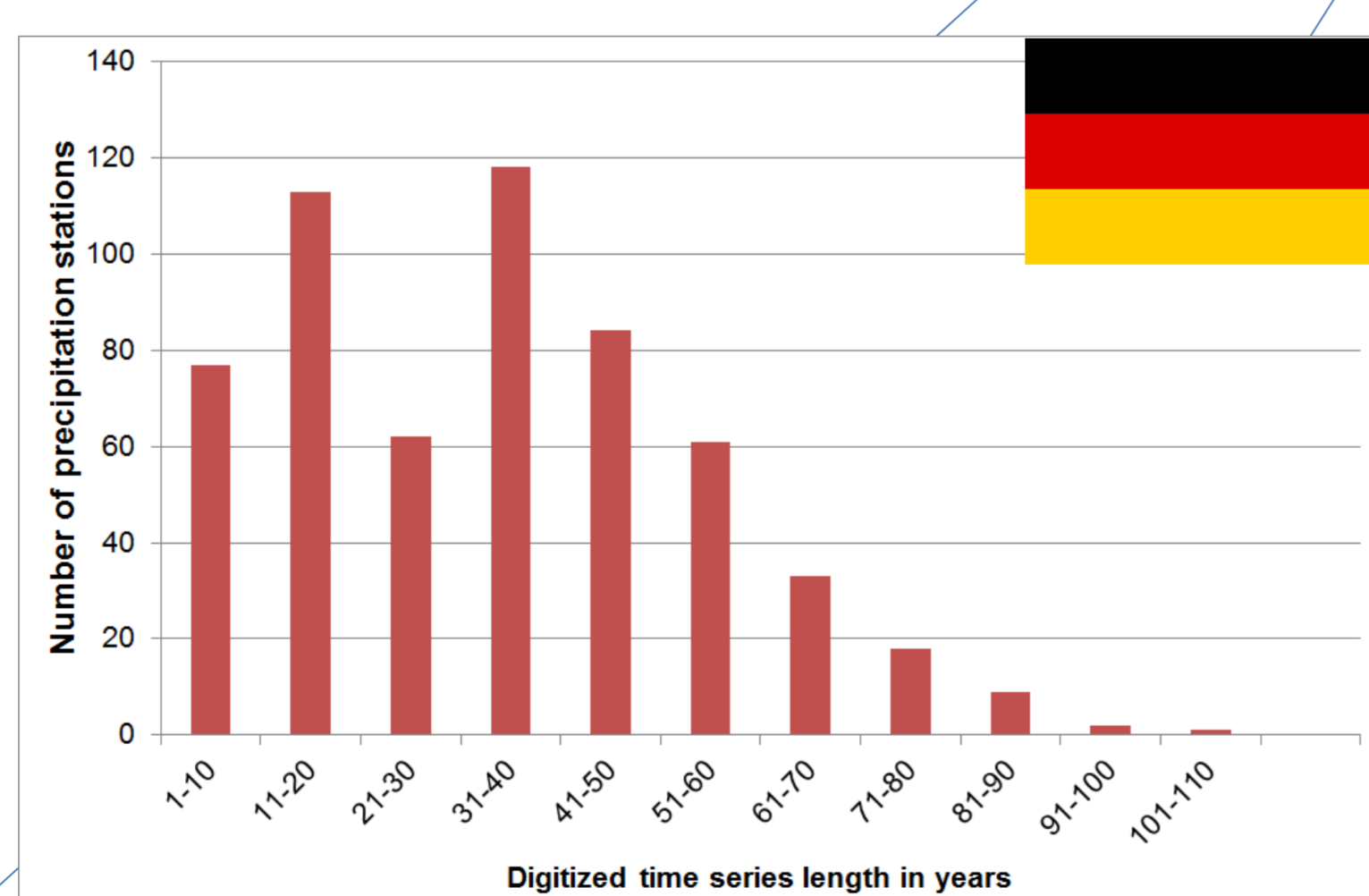
Spain



AEMET: Progress is limited to individual initiatives of the available staff to keep some activities alive:

Files of an imaging project of old documents performed in the nineties have been incorporated to the national climatological data bank; digitization of old daily data (focusing on the longest series), old phenological data and old radiosonde printed outputs; paper strips pluviograph records of old observatories are being digitized in cooperation with the Madrid Polytechnic University. An integral Data Rescue project is being devised in AEMET to coordinate and stimulate a more consistent approach to the recovery of the oldest data.

Additional meteorological data have been digitized at the Meteorological Service of Catalonia (Autonomous Government of Catalonia) including metadata. A project to recover new data for late 19th century from historical press sources is on the way.



Germany

The project KLIDADIGI ended in 2013, but the digitization work at Deutscher Wetterdienst will be **continued** with reduced staff. During the last ten years about 580 daily precipitation series (with 21890 station years, or 2500 station years during 2013-2015) were digitized at DWD. The progress of digitizing climate stations (3 observations per day of up to 9 variables) during the years 2013-2015 was about 670 station years (or 19 series). During the last ten years the amount of digitized climate series was 3530 station years or 67 series.

Croatia



Croatia has started collaboration with the Croatian State Archives which should give support in data rescue. The scanning process should start by the beginning of 2016. Croatia digitized precipitation data: 36 stations, most of them beginning around 1950 (the oldest from 1921), altogether 1028 years of data.

Austria



Due to staff shortage data rescue is progressing rather slowly. Five stations (Wien Schönbrunn, Krippenstein, Reichenau/Rax, Fuchsenbigl and Traisen) could be extended back in time. ZAMG will continue the digitization of data step by step.