

EGU2020-21808

<https://doi.org/10.5194/egusphere-egu2020-21808>

EGU General Assembly 2020

© Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.



Climate monitoring products for Europe based on Surface in-situ Observations

Else van den Besselaar¹, Gerard van der Schrier¹, Ole Einar Tveito², Francesco Isotta³, Phil Jones⁴, Barbara Chimani⁵, Monika Lakatos⁶, Peter Bissolli⁷, and Petr Stepanek⁸

¹Royal Netherlands Meteorological Institute (KNMI), De Bilt, Netherlands (besselaar@knmi.nl)

²Meteorological Service of Norway (MET Norway), Norway

³Eidgenössisches Departement des Innern (MeteoSwiss), Switzerland

⁴University of East Anglia, Climatic Research Unit, United Kingdom

⁵Austrian weather and geophysics service (ZAMG), Switzerland

⁶Hungarian Meteorological Service (OMSZ), Hungary

⁷Deutscher Wetterdienst (DWD), Germany

⁸Global Change Research Institute of the Czech Academy of Sciences (GCRI), Czech Republic

This C3S service provides various observational surface in-situ datasets for Europe. Its core builds on the European Climate Assessment and Dataset (ECA&D) and the gridded E-OBS daily datasets for Europe. The pan-European E-OBS datasets for temperature, precipitation and sea level pressure are now available as ensemble datasets. Additional gridded datasets for other Essential Climate Variables are developed, like global radiation, wind speed and relative humidity. Next to the pan-European datasets, regional datasets for the Nordic, Alpine and Carpathian regions are available.

Climate monitoring products such as the indices defined by the Expert Team on Climate Change Detection and Indices (ETCCDI) are available. Within this service, uncertainty estimates are provided as well for the pan-European datasets and indices.

All the information from these datasets and indices will flow into monthly State of the Climate reports which are available around the 25th of the next month from the dedicated portal for this service. The annual State of the Climate reports are created more centrally within C3S and this service provides input for that report as well.