



E-OBS climate dataset

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Model-based reanalyses provide comprehensive information about the past evolution of the climate. However, these datasets are computationally expensive and contain potential biases associated with the numerical weather prediction model applied.

At present, very few high-resolution regional reanalyses datasets are available for Europe, and these datasets span a limited period of time only (typically less than 20 years). For climate change applications in science-based risk management and adaptation most users need information about climate trends and changing probabilities of high impact extremes (such as heat waves and floods) based on longer-term datasets. Therefore, gridded datasets from in situ observations form a welcome contribution to the ensemble system of regional reanalyses.

This presentation will highlight recent developments of the E-OBS daily gridded (25 km) observational datasets for precipitation, temperature and sea level pressure which are derived from long term (> 60 years) observations at more than 3000 stations in Europe. Besides results of comparisons with other datasets, the work on additional variables (in particular snow cover and sunshine duration) and the work on gridded indicators for extremes will be shown. These recent developments are part of the “EUropean Reanalysis and Observations for Monitoring” project (see www.euro4m.eu). EURO4M aims to combine seamlessly the Essential Climate Variable (ECV) datasets from ground-based stations, satellites and model-based regional reanalyses.