



Using climate models for national climate scenarios in Europe

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For the development of national climate scenarios global climate models (GCM) and regional climate models (RCM) are used. However, in each European country national climate scenarios are constructed in a different way. Although generally information from the same climate model projects (CMIP for GCMs and ENSEMBLES and CORDEX for RCMs) are used, different selections are made, different reference periods, time horizons and RCPs are used. The level of detail and the additional information and tools provided for users also differs. During this presentation we give an overview of an inventory of the differences between the various national climate scenarios in Europe. Topics which will be addressed during this session are: how IPCC climate scenarios are developed, why national climate scenarios are needed and causes of differences between national climate scenarios. The presentation will include examples of the new scenarios in Switzerland (2018), the UK (2018) and the Netherlands (2014).

The presentation is based on the earlier inventory made for the WATCH project (WATER management for road authorities in the face of climate CHange), which was updated this year and used as the basis for a lesson on “Using climate models for climate scenarios” for the Copernicus Climate Change Service (C3S) User Learning Service (ULS; 43 lessons and number is still expanding). Key goal of C3S is to provide authoritative information about the past, present and future climate, as well as tools to enable climate change mitigation and adaptation strategies by policy makers and businesses. The ULS provides online learning and face-to-face trainings. Also some information on ULS will be provided (<https://uls.climate.copernicus.eu>).