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REMOLAND: New high-resolution surface boundary data for the regional climate model REMO and their impacts

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In cooperation with the Climate Service Center Germany (GERICS) we want to improve the land surface module in the regional climate model REMO. Due to the need of high-resolution regional climate models to get information about local climate change, new data and new processes have to be integrated in these models.

Based on the REMO2015 version and focusing on EUR-CORDEX region we included and compared five different high-resolution topographic data sets. To improve the thermal and hydrological processes in the model's soil we also tested three new soil data sets with a much higher spatial resolution and with new parameters for a new soil parameterization.