Project: **750** Project title: **Regional Decadal Climate Prediction for Europe** Project lead: **Daniela Jacob** Report period: **1.1.2014 - 31.12.2015**

The computing time in the last 1.5 years has been used to complete the regional ensemble for MiKlip on the 0.44° resolution domain (CORDEX Europe) based on the global MPI-ESM baseline1 simulations. For REMO this means that there are more than 100 decadal hindcasts available (see Table 1) in the DKRZ archive and on the MiKlip server (only a limited data set for most common variables). For comparison with baseline0 and the higher resolution simulations from partners in MiKlip two decades have more members.

	Decadal1960-2003 (yearly)	Decadal1990	Decadal2000
simulations	2	7	10

Table 1: REMO decadal hindcasts downscaled from MPI-ESM baseline1simulations.

Within MiKlip a simple bias correction method has been used to provide bias corrected monthly mean data for analysis. In REDCLIP this data has been used to create re-calibrated decadal forecasts using the climate conserving re-calibration (CCR) method (Weigel et al., 2009). The idea of CCR is to make unreliable forecasts reliable. The regional ensemble for leadtime 2-5y shows over- and under-confident regions for Europe (Figure 1). With the CCR method these forecasts can be made reliable (not shown).



Figure 1: Reliability computed after Weigel et al. (2009). Red Colors indicate overconfident and blue colors underconfident forecasts.

This result shows some dependency on the observational data set. This is currently under investigation and will be part of the discussion of a joint publication within MiKlip module C.