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## Effects of GCM selection for regional climate modelling illustrated by the interactive tool GCMeval

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With the increasing number of global climate models available, regional modellers have to make choices to select a manageable subset for downscaling. This limits the representation of both present day climate and future climate change compared to the full GCM ensemble.

We present the interactive web-based tool called “GCMeval”, available at <https://gcmeval.met.no>. This tool lets you assign weights to different regions, seasons, climate variables, and skill scores and presents a ranking with model performance for a historical period. We demonstrate how the tool can be used to, for example, remove models with the largest historical biases for the selected criteria, or to optimise the spread. The weighting can be used to illustrate the sensitivity of the results to model choice.

Based on the choice of regions and weights, the tool produces scatter plots of projected future temperature and precipitation and shows how the selected sub-ensemble compares to the full ensemble. The tool can also be used to evaluate ensemble selections "post-hoc", as demonstrated with examples from CORDEX.