Future calculation of **wind energy capacity factors** over Europe using **CMIP6** model projections

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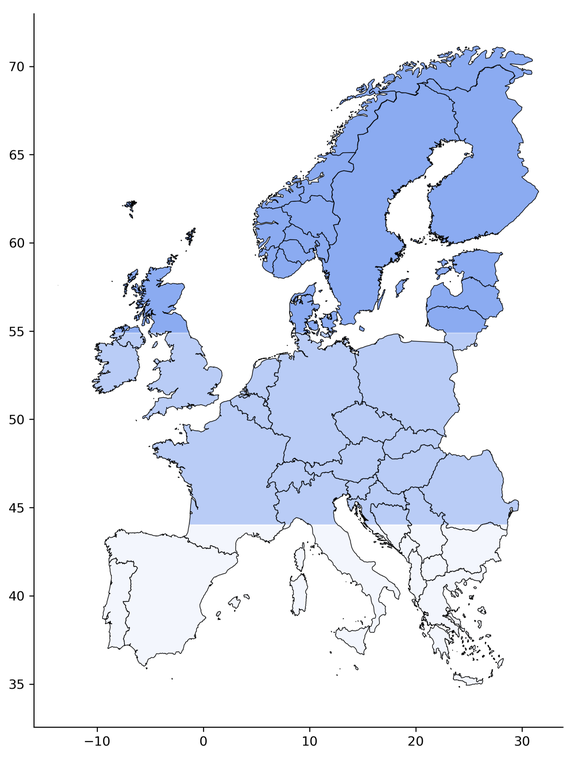
Can Global Climate Model projections meet Energy System Modeling needs?

With **climate change** there is a rising need to **plan** for **future renewable energy** systems **resilient** to the **climate variability** of the future.

Main Challenge

The disconnect between Climate Model 'output' and Energy System Model 'input'.

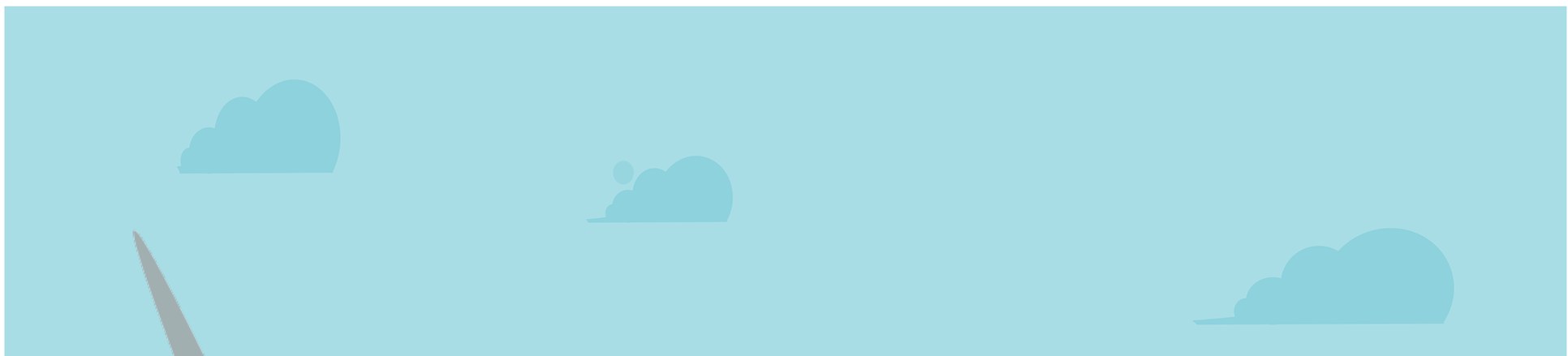
Future Climate variables from Global Climate Models → Energy Capacity Factors → Energy System model input → Future energy system design



Outlooks

we will further

1. Expand our model ensemble
2. Preform bias correction
3. Temporally and Spatially Downscale the Climate Data
4. Create a database of Single Future Weather years for Energy System Modeling



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