

VEG3D – Overview CORDEX FPS - LUCAS

Institute for Meteorology and Climate Research - Troposhere Research

Marcus Breil

Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology (KIT)

www.kit.edu

LUCAS - Land Use and Climate Across Scales



Investigate the impact of land use change on the regional climate

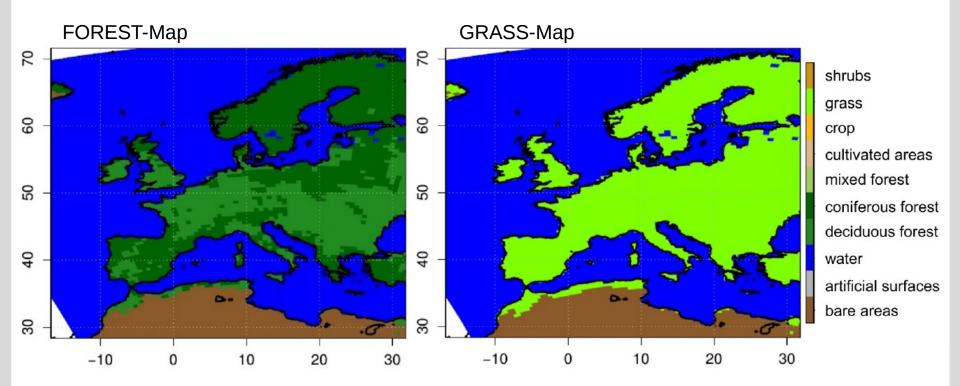
 \rightarrow regional climate simulations with different RCMs and LSMs

3 project phases:

- Phase 1: Idealized experiments
- Phase 2: Realistic experiments
- Phase 3: High resolution experiments

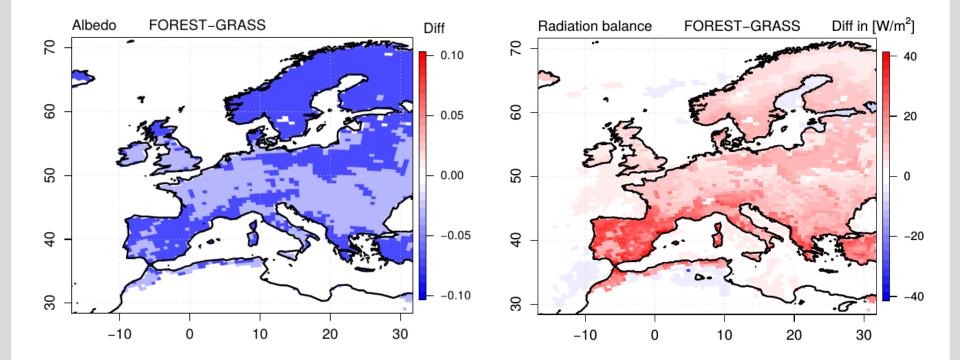
Landuse Maps





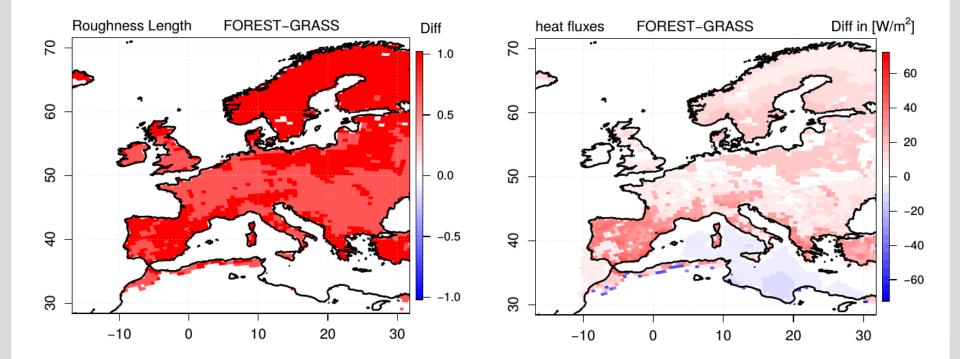
Radiation - Summer





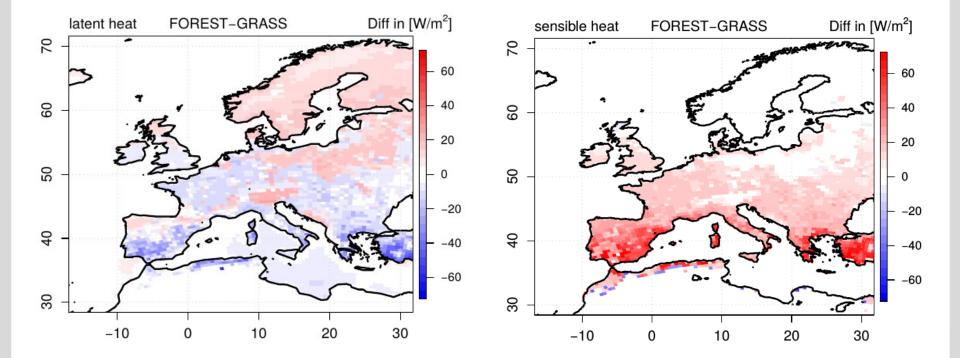
Roughness - Summer





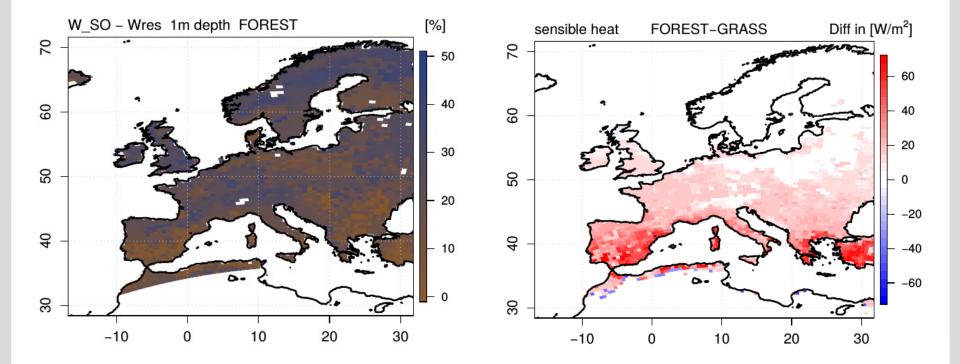
Turbulent Heat Fluxes - Summer





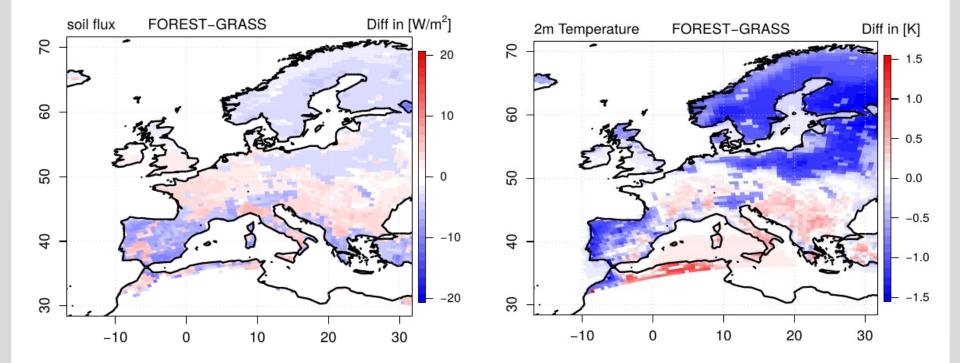
Soil Water Content - Summer





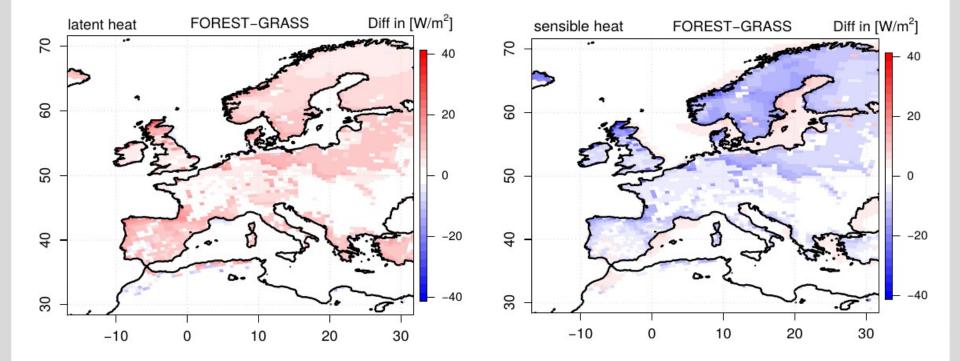
Near Surface Temperature - Summer





Near Surface Temperature - Winter





Near Surface Temperature - Winter



