

# Report from WG SOILVEG

- WG coordinator/deputy:  
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## FPS LUCAS:

- Analysis of phase I ongoing
- Phase II in preparation
- Publications:
  - Rechid D, Davin E, de Noblet-Ducoudré N, Katragkou E, and the LUCAS Team, CORDEX Flagship Pilot Study "LUCAS - Land Use & Climate Across Scales" - a new initiative on coordinated regional land use change and climate experiments for Europe. Solicited presentation. Geophysical Research Abstracts, Vol. 19, EGU2017-13172, 2017, EGU General Assembly 2017
  - Davin, E. L., D. Rechid, M. Breil, R. M. Cardoso, E. Coppola, P. Hoffman, L. L. Jach, E. Katragkou, N. de Noblet-Ducoudré, K. Radtke, M. Raffa, P. M. M. Soares, G. Sofiadis, S. Strada, G. Strandberg, M. H. Tölle, K. Warrach-Sagi, V. Wulfmeyer, 2019: Biophysical impacts of forestation in Europe: First results from the LUCAS Regional Climate Model intercomparison, Earth System Dynamics, DOI: 10.5194/esd-2019-4
  - Tölle, M. H., M. Breil, K. Radtke, H.-J. Panitz, 2018: Sensitivity of European temperature to albedo parameterization in the regional climate model COSMO-CLM linked to extreme land use changes, Frontiers Environmental Science, DOI: 10.3389/fenvs.2018.00123
  - Breil, M., D. Rechid, E. L. Davin, N. de Noblet-Ducoudré, E. Katragkou, R. M. Cardoso, P. Hoffmann, L. L. Jach, P. M. M. Soares, G. Sofiadis, S. Strada, G. Strandberg, M. H. Tölle, K. Warrach-Sagi, 2019: The opposing effects of afforestation on the diurnal temperature cycle at the surface and in the atmospheric surface layer in the European summer, (In Review)

## DFG JLU:

- Seasonal varying phenology for grass implemented in COSMO-CLM (Eva Nowatzki)
- Transient land use/cover map and more heterogeneity in progress (Mingyue Zhang)

## Urban climate modelling:

- Johann Zuger / AIT, **High Resolution Urban Climate**
- Sebastian Schubert and Luxi Jin / HU Berlin, **COSMO-CLM/DCEP-BEM**
- Oscar Brousse / KU Leuven, **Malaria in urban areas of sub-Saharan Africa**
- **Urban modelling groups are encouraged to exchange urban data for validation and evaluation!!!**

## Snow modelling:

- PT SAINT: implementation of new snow model in COSMO 6.0
- Project over Antarctica at KU Leuven, Nicole Van Lipzig, Postdoc, Sam Van den Broucke, working on snow parameterization with COSMO-CLM<sup>2</sup>

## Soil and canopy:

- Jan-Peter Schulz / DWD, **bare soil evaporation improvements and introduction of skin temperature, reduction of ground heat flux.**
- Andreas Will / BTU, **support for vertically inhomogeneous soil types** (e.g. from HWSD or BUEK 200 data set) by re-writing the Richards equation.
- Juergen Helmert / DWD, **external parameters, new implementation of physical properties of soil (no look-up table).**