



# **SOILVEG Working Group Report**

CLM-Assembly 2014

# SOILVEG WORKING GROUP REPORT

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- Update on URBMIP by H. Wouters
- Update on recent developments of VEG3D by M. Breil
- Update on recent developments of TERRA by S. Kothe
- *Regional characteristics of Siberian snow cover changes derived by COSMO-CLM – K. Klehmet*
- *Quantifying the biogeophysical impact of European forestation using COSMO-CLMsquare – S. Vanden Broucke*
- *The seasonal dependency of the Belgian urban heat island intensity in CCLM + TERRA-URB – H. Wouters*
- Administration

# UPDATE ON URBMIP

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- Urban Modelling Intercomparison Project
- 3 different urban modelling approaches (DCEP, TEB, TERRA-URB)
- Intercomparison for Berlin with focus on T2M
  - Finished (Trusilova et al. 2014)
- Intercomparison for Basel with focus on surface fluxes
  - To be submitted end of 2014 (Special Issue?)
- TERRA-URB least complex
  - Implementation is ongoing
- DCEP, TEB as external patch

## UPDATE ON VEG3D

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- Veg3D is a SVAT model developed at KIT
- Coupled to COSMO-CLM via OASIS MCT
- Parallelized version is ready (MPI)
- HWSD implemented

# UPDATE ON TERRA

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- **Soil Thermal Conductivity:** Introduction of dependency of soil thermal conductivity on soil water content  $\Rightarrow$  Tests done, Successfully implemented into COSMO-CLM
- **Vegetation Phenology:** Implementation of phenology parameterization to improve LAI  $\Rightarrow$  Tests done
- **Soil Temperature – Lower Boundary Condition:** “No heat flux” condition at lower boundary  $\Rightarrow$  Tests done, Documentation available, Implementation expected
- **Soil carbon cycle:** Soil carbon model implemented in TERRA stand-alone  $\Rightarrow$  Tests done, Project finished
- **TERRA stand-alone:** E.g., Several bug fixes, Revision of I/O, Parallelization  $\Rightarrow$  Download on COSMO-CLM webpage in preparation

# SOILVEG WORKING GROUP REPORT

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- Update list of responsibilities within SOILVEG
  - 1) WG coordinator: E. Davin (confirmed by vote)
  - 2) Deputy coordinator: Vacant
  - 3) Webpage management: M. Demuzere (confirmed by vote)
  - 4) Source code management: Community Land Model: E. Davin; Veg3D: M. Breil; TERRA: Vacant in 6 months
  - 5) Urban Model Intercomparison project: H. Wouters