

ICCARUS 2021, TERRA and ICON seamless, summary of discussion

+ J. Helmert presented the Land-Surface Aspects for ICON-Seamless. Strategic goal is to develop a new ESM based on NWP with unified LSM + ICON-O and Sea-Ice for climate simulations/projections, and data assimilation.

With work package 1: Implementation of JSBACH with vertical diffusion (VDIFF) in ICON-NWP a major milestone will be reached after about 1.5 years and provide the base for a decision about further development.

+ Linde Schlemmer presented an online-questionnaire to get a rapid feedback from participants about ICON-Seamless :

About 18 persons participated in the survey. As could be expected from the group of participants of the session, most participants indicated that they had either investigated TERRA in detail or even developed parts of TERRA. Generally, the idea to move to a different LSM was taken rather positively, but there were also voices that did not like the idea to move away from TERRA at all. 6 votes indicated, that they would be interested in joining the development of a new LSM. The survey further revealed that a standalone capability of the LSM is very crucial for the community.

+ J. Helmert presented the status of TERRA developments at DWD for WG3b with respect to the DWD's strategy, structure, and resources. Major achievements during 2020 were the migration from CRAY system to NEC and the replacement of COSMO-D2 with ICON-D2.

Current activities exist for soil hydrology, mire parameterization, and an improved canopy scheme. Further connections exist to COSMO projects AEVUS/CITTA, SAINT, VAINTE, EXTPAR.