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Outcome of our last community workshop

At the end of March 2023, we organized our third on-site community workshop in Berlin, and we revived the joint development of our Earth system modeling strategy. With about 70 participants from research institutions, universities, and government agencies, we agreed on the following main outcomes.

1. We announced the sprint checks as a low-threshold way into a sprint application and received broad support from the community for this approach.
2. The land surface was identified as the next-to-be-included core component of our modeling system.
3. We agreed on a process for forming and dissolving temporary working groups. First ideas for such working groups were already suggested (→ more info).

The presentations from the introduction as well as the results presentations can be found on [the workshop website](#).

**WE NEED YOUR
SPRINT APPLICATION!**

SEND IT TO
SUPPORT-REQUEST@NAT-ESM.DE

Currently we have four Research Software Engineers (RSE) in the support team, but only two running sprints. As of July, there will even be five RSE. So, we urgently need your sprint applications! You can find the sprint-application document and more info on our website.

Get involved.

If there is anything interesting from your field that you would like to publish here, please contact us at any time via info@nat-esm.de.



Changes in steering committee

At the beginning of the year, Michael Schulz from the University of Bremen left the steering group due to other commitments at the University of Bremen. Michael has been involved in natESM from the beginning and has made valuable contributions to the development of natESM over the years. We want to thank Michael for his work and wish him all the best.



Kira Rehfeld

We are pleased to have welcomed Kira Rehfeld from Tübingen University as a new representative of the Universities in the steering group since March.

Kira has been a Professor for Climatology at Tübingen University since September 2021. Her research explores the dynamical changes within the Earth system under global mean temperature change, and its sensitivity to external climate forcing. She is also interested in understanding how complex Earth system models have to be to capture features of climate correctly, and in developing climate change mitigation options.

During the community workshop in Berlin, it became evident that the next core component to be integrated into the natESM system must be the land component, and that therefore a representative of this component must also be a member of the steering group.

Sönke Zaehle

We are very pleased that Sönke Zaehle, a director at the Max Planck Institute for Biogeochemistry in Jena, now represents the land component in the steering group.

Sönke is mainly interested in the interaction of land biota with the climate system. His research integrates new ecophysiological knowledge, ecological observations (including plant-trait information, in-situ measurements, atmospheric-concentration measurements, and remote-sensing data) with modelling at different scales and levels of complexities.



TAKE PART IN OUR SURVEY!

To improve our natESM service, we need your support. Answering the questions of our → [**community questionnaire**](#) ← should take no more than 10 minutes of your time. The survey is anonymous and does not allow any individual to be identified.



New member in support team



Since June we have had a new colleague in the support team. From now on, Catrin Meyer will support the natESM sprints on the JSC side. Have fun and welcome to the team!

Training offered by our RSE

During Nov. 14–16, our RSE will offer an introductory course on modern software engineering. Please register now (without obligation) so that we can tailor the program and hands-on exercises to your individual needs.

→ More info

KickOff ice-sheet component

On October 25, the German ice-sheet community will meet to discuss the implementation of an ice-sheet component in the natESM system. If you are interested in participating, just send a short mail to info@nat-esm.de.

Sprint status

Model	Task	Support time	Start date	Status
ICON-ART	Analysis of ART code for GPU porting	8 weeks	04/22	Closed → Docu
ICON-mHM-YAC	Online coupling mHM into ICON using YAC	6 months	07/22	Closed → Docu
FESOM	Port FESOM 2.1 to JUWELS booster and Levante-GPU	6 months	11/22	Closed
ParFlow	Port ParFlow to AMD GPUs, Inspection of RAPID Memory Manager and Hipification, Performance Analysis	6 months	12/22	Closed
MESSy	Optimize the data transfers between host (CPU) and device (GPU)	4 months	01/23	Closed
ESMValTool	Updating remaining non-lazy preprocessor functions to be memory efficient AND updating ESMValCore	6 months	06/23	Running
HAMOCC	Concurrent HAMOCC on GPU	6 months	06/23	Running

Up next...

Currently, we are in the process of establishing a structure in GitLab that will allow everyone from the community to contribute to the natESM system. More about this will appear in our next newsletter.

ESiWACE3 Call

Some of you might be interested in the ESiWACE3 call to apply for support the exascale preparations for the **European** ESM community.