MOSAIK – Newsletter 11/2017
20/11/2017 B. Maronga

1. **General information and reminders**

   - **PALM-4U Release**
   The release of the first PALM-4U version was terminated to be on Nov 30 2017. Due to delays in many of the work packages, we will release the beta version of PALM-4U in mid December, but not later. Our partners from module C need a working model starting from January. Farah Kanani-Sühring and Matthias Sühring have compiled a PALM-4U branch on our svn server and added all components that were „ready to use". This PALM-4U version consists of
     - The current PALM core
     - LES-LES nesting (M2)
     - NetCDF interface for reading all input data according to the PIDS (M2)
     - Simplified compilation and run scripts (M3)
     - Energy balance solver for all urban and non-urban surfaces (M4)
     - Urban radiation interactions for building-resolving simulations (M5)

   Based on my current state of knowledge, the following components are almost ready to be implemented:
     - RANS mode (M1)
     - Indoor model (M6)
     - Gas-phase chemstry (M7)
     - Biometeorological analysis products (P2, P3)
   However, I kindly ask the responsible people for these components to get in touch (if not established already) with Farah Kanani-Sühring to discuss the final steps of merging. As these modules are basically delivered too late now, or needed major revisions, Farah will need time to merge your code and she can only give you limited coding support. Depending on your final delivery of your working code, it might happen that your code will not make it to the showcase simulation and/or the beta version of PALM-4U.

   The following components will not make it to the beta release:
     - Multi-agent system (P1) (due to staff change)

   The following input data products are now available:
     - All available surface data products for Berlin at 1m and 10m resolution (D1, D2)
     - First version of INIFOR for initialization of PALM-4U with COSMO data (D3)
     - COSMO data for 8 selected scenarios (D3)

   The following data products are still in the pipeline

- Soil type classification for Berlin
- Street type classification for Berlin

- **Final decisions on the [UC]² data standard** will be available soon. This includes decisions on grid mapping, variable names, and will allow to finally establish the [UC]² data management system.

- **Berlin showcase simulation**
  We are currently busy preparing the showcase simulation. In practice this means that I am processing all input data to static and dynamic drivers for PALM-4U. Also, I am currently testing the delivered PALM-4U version (small setups, LES-LES nesting, etc.). Matthias Sühring is busy debugging the code whenever I discover some strange behavior. Farah Kanani-Sühring is occupied with merging the missing components. Due to holidays and health issues, we are a little behind our schedule, but confident that the simulation will run before christmas.

- Please report the **successful achievement of your deliverables/milestones** to C to that the MOSAIK web page can be updated accordingly.

2. **Meetings / Conferences**

- The next (4th) **MOSAIK meeting** will take place from **Feb 13-14 2018** in Hannover.

- **The 10th International Conference on Urban Climate/14th Symposium on the Urban Environment (ICUC-10)** will take place from August 06-10 in New York City, USA. Abstract deadline is: December 15, 2017. See details here. You might remember that we applied for traveling money for this conference, so please consider it „the place to be" for presenting you results. Personally, I think the abstract deadline is rather soon given the fact that most of us spend their time modeling instead of creating research findings. Hence, please think about whether there is potential of contributing to this conference. We will submit at least one abstract to present the new model PALM-4U and its capabilities. Please send me a draft and/or copy of your submitted abstracts.

3. **Publications**
- The technical documentation an validation of the first version of the urban surface model in PALM(-4U) has been accepted for publication:

  Resler, J., P. Krč, M. Belda, P. Juruš, N. Benešová, J. Lopata, O. Vlček, D D. Damašková, K. Eben, P. Derbek, B. Maronga, and F. Kanani-Sühring (2017): PALM-USM v1.0: A new urban surface model integrated into the PALM

large-eddy simulation model, Geosci. Model Dev., 10, 3635-3659, DOI: [10.5194/gmd-10-3635-2017](#)

- Tobias Gronemeier published his works on the effect of unstable stratification on ventilation in Hong Kong:

    Gronemeier, T., S. Raasch, and E. Ng (2017): Effects of Unstable Stratification on Ventilation in Hong Kong. Atmosphere, 8 (9), 168, doi: [10.3390/atmos8090168](#)

- [UC]² and MOSAIK overview publications are still in the pipeline and we expect submission before christmas. The MOSAIK paper is final and waits to be submitted.

4. Homepage
- PALM-4U will be released on the PALM web page (http://palm-model.org). The appeerence of the site will change soon to make it compatible with both PALM and PALM-4U.

- An overview of the available input data and preliminary static and dynamic drivers for PALM-4U is given at https://palm.muk.uni-hannover.de/mosaik/wiki/data. An example for the generic crossing case will follow in the next days.

5. Deadlines missed

Please remember that many deadlines are approaching on 2017-11-30!

Due date	Deliverable/milestone	Status
2017-04-30	M6: Building model to be integrated in the UCM core	overdue
2017-08-31	D4: Provide soil data for Berlin	overdue

For all upcoming deadlines, please check http://palm.muk.uni-hannover.de/mosaik/wiki/tickets/subproject