



C2I – Concluding Remarks

D. Rieger and the PP C2I team



Milestones

C21

C2I Milestones: Workshop

C2I Workshop on Setup & Experiments 15 – 19 Oktober 2018

in: COSMO News Letter No. 18, 2018, page 17-27

- Focus on performing ICON-LAM simulations with the individually chosen configurations: Different areas, different initial and boundary data, ...
- Talks on 'Getting Started with ICON', 'Overview on ICON-LAM settings', 'Visualization of ICON data with GrADS' and 'Introduction Fieldextra'
- Most of the time was dedicated to working with ICON in the individually chosen configuration (with ICON developers available for assistance)
- 30 Minutes 'Synchronization' each day to share the individual achievements of the day
- After setting up a 'basic' forecast for their domain at DWD's Cray, the participants continued with their individual priorities

Established a network, very important for the further success of C2I!



C2I Workshop on Setup & Experiments

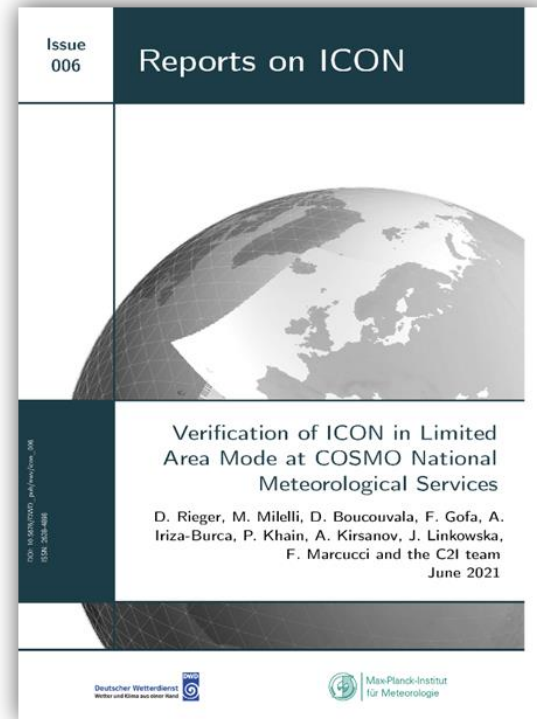
Monday, October 15, 2018	
09:00	Registration
09:30 – 10:30	Introduction (D. Rieger) Overview the plans, tasks and goals of the C2I workshop. Introduction to ICON grid files, external parameter files and remapping of initial and boundary data.
10:30 – 11:00	Installation Installation of dwd-icontrols and the ICON code at DWD's HPC system.
10:30 – 11:00	Break
11:00 – 12:30	Remapping of Initial & Boundary Conditions Usage of dwd-icontrols to remap initial and boundary data from ICON or IFS to the individual target grid.
12:30 – 13:30	Lunch
13:30 – 15:30	Remapping of Initial & Boundary Conditions cont.
15:30 – 16:00	Break
16:00 – 17:30	Remapping of Initial & Boundary Conditions cont.
17:30 – 18:00	Synchronization Short presentations on the individual progress.
Tuesday, October 16	
09:00 – 09:30	Overview ICON-LAM Settings (D. Rieger) Overview on the configuration that serves as starting point for the ICON-LAM forecasts.
09:30 – 10:30	Visualizing ICON Output (A. Simold) Details on ICON namelist output and visualization techniques.
10:30 – 11:00	Break
11:00 – 12:30	ICON-LAM Simulations Conduction of ICON-LAM simulations for the individual domains.
12:30 – 13:30	Lunch
13:30 – 15:30	ICON-LAM Simulations cont.
15:30 – 16:00	Break
16:00 – 17:30	ICON-LAM Simulations cont.
17:30 – 18:00	Synchronization Short presentations on the individual progress.



Verification of ICON in Limited Area Mode at COSMO National Meteorological Services

in: Reports on ICON, 006, 2021, https://doi.org/10.5676/DWD_pub/nwv/icon_006

- Summarizing verification results for the September/October/November 2020
- Publication in ‚Reports on ICON‘ to reach the ICON Community
- Verification results mostly positive
 - Especially for surface
- Upper air shows slightly better results for COSMO
 - First results with new ICON versions are promising
- Precipitation
 - Improvements for Poland, Romania and Common Area
 - Neutral for Greece, Italy and Israel



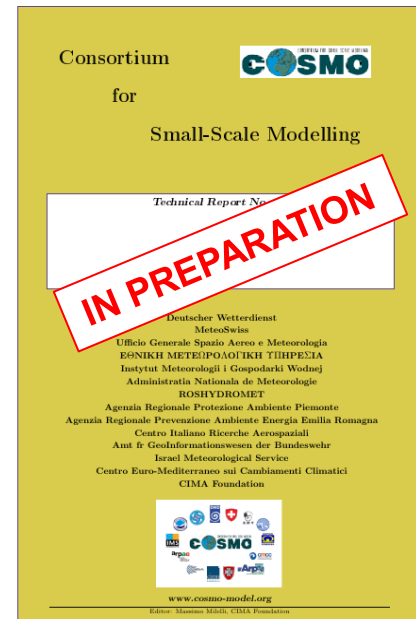
C2I Milestones: Final Report

The COSMO Priority Project Transition of COSMO to ICON-LAM: C2I Final Report

in: COSMO Technical Reports, in preparation

- Results for one full year of verification
- ICON shows mostly better performance than the COSMO model
- INMET Brazil contributes a section with results from May 2022

Publication planned for October 2022



Aftermath

C21

Several COSMO Activities and Projects continue the work started in PP C2I

PP ICON-COMFORT

- Extend the forecasters' feedback subtask of PP C2I
- Prepare for a continuous activity on a mid- to long-term perspective

PP C2I4LC

- Technical support is crucial for a successful transition from COSMO to ICON.
- Licensing countries will start the transition phase soon
- Prepare a support framework to guarantee a smooth transition

Continuous Verification (WG5)

- In terms of FTE, verification was the largest topic in PP C2I
- ICON becomes more and more the focus of national and common area verification presented regularly in WG5

Operationalization of ICON

COSMO Member	Configuration	Operationalization
Germany	ICON-D2	11/2019 (pre-operational) 02/2021 (operational)
Greece	ICON-GR2.5	Pre-operational: 06/2019 (not time-critical) Operational: 2023 (planned)
Israel	ICON-IL2.5	06/2020
Italy	ICON-IT ICON-2I	07/2020; Full switch: Q4/2023 <i>(Ensemble requires GPU-capable version)</i> 06/2022 (pre-operational)
Poland	ICON-PL	09/2022
Romania	ICON-RO-2.8km	01/2020
Switzerland	ICON-1E ICON-2E	Q1/2024 <i>(Requires GPU-capable version)</i>

Thanks to everyone involved in PP C2I!

C2I has a very, very long list of contributors from each COSMO member state, so I will focus on my contact points:

Dimitra Boucouvala, Flora Gofa, Theodore Andreadis and the Greek team

Pavel Khain, Alon Shtivelman and the Israeli team

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Joanna Linkowska, Witold Interewicz and the Polish team

Amalia Iriza-Burcă, Rodica Dumitrache and the Romanian team

André Walser, Guy de Morsier and the Swiss team

Reinaldo Silveira, Gilberto Bonatti and the Brazilian team

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