



# COSMO Priority Project C2I

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# Verification Report

For SON 2020

C21

# SON Verification Report

## Report was published!

[https://doi.org/10.5676/DWD\\_pub/nwv/icon\\_006](https://doi.org/10.5676/DWD_pub/nwv/icon_006)

→ 55 pages, 7 contributions

- Greece
- Israel
- Italy
- Poland
- Romania
- Russia
- Common Area



## Report was published!

- 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

*Thanks for the excellent contributions!*



# Summary & Outlook

C2I

What are the next steps for PP C2I?

- Verification results look better, or at least neutral, as compared to COSMO results; runtime is mostly better
- With cp/cv bugfix and the ecRad radiation scheme results will likely improve even more (as compared to what is was presented in the SON verification report)
- COSMO partners should now be able to switch their deterministic forecasting system to ICON (this was the major goal of PP C2I!)
- Further issues are addressed in separate, dedicated PPs/PTs.
  - GPU version of ICON (PP IMPACT), ensemble forecasting systems with ICON (PP Prophecy), transition to MEC/Rfdbk based verification (PP CARMA), and further development of data assimilation for ICON (WG1/KENDA)
  - Other projects aimed at further developing ICON are initiated (e.g. CAIR, CITTA)

**In summary:                   The focus of the COSMO partners has shifted to ICON;  
                                      The aims of PP C2I have been fulfilled**

- Further steps should be made through dedicated PTs and PPs, where problems are solved in more target-oriented manner; the scope of C2I (and similar PPs) is too broad, and the management overhead is large

## The cp/cv bugfix

- Looking forward to see new results!

## Task 6: Forecasters' feedback

- WG4 has prepared a survey
- First surveys have been returned
  - An added value is noted by the forecasters
  - Very early stage for most of the forecasters

## Final Report

- C2I ends in March 2022
  - Extension is not necessary as the major goals are fulfilled
  - Instead: Priority task to monitor the ICON performance (verification and forecasters) for another year?
- Preparations starting: Usage of common verification software MEC/Rfdbk is possible