

The editorial of this 22<sup>nd</sup> issue of the COSMO Newsletter is the first one since 2019 with a group picture. It is the one of the 24th COSMO General meeting in Athens 2022. A group picture by itself might not have been considered as more than a usual habit in previous years. This time, however, it is a symbol for the return to in-person meetings which we missed from the pre-Covid years. The COSMO general meeting has been a great success for both the scientific exchange and the team building within the COSMO community. While we have learnt to move a lot of our discussions, meetings and planning to the virtual space in recent years, the COSMO GM 2022 clearly demonstrated that regular in-person meetings are essential for the successful cooperation within such a consortium.

Of course, the cooperation within COSMO will make use of purely online or hybrid meetings from now on (admittedly also due to significant cuts in travel budgets for some COSMO members). But such meetings can provide advantages. For example a temporal decoupling of the different working group meetings thereby allowing for a broader participation. This was hardly realizable with the previous concept of only in-person meetings. Moreover, the ICCARUS 2023 was held in a hybrid format giving more participants the opportunity to follow the presentations. One intention of this hybrid approach was to ease and foster the cooperation between COSMO and ICON communities, in particular in thematic working group meetings which opened up the standard COSMO WG discussions for the larger community. In this sense, ICCARUS 2023 can be considered as part of the efforts towards a successful transition of COSMO consortium to the ICON model, which is ongoing. After successful installation of deterministic forecasts with ICON for the COSMO members in recent years, more and more meteorological services of COSMO already started with ICON-LAM-based ensemble forecasts or are currently preparing this step.

Another important change related to the transition to the ICON model is the adaption of the COSMO licence. An ICON usage licence is now available to be used by any NHMS for its official duty. The COSMO consortium supports the use of ICON by its new ICON-COSMO Support Licence. The support licence is subject to a licence fee which depends on the gross domestic product per capita (GDPpc) of the licensee's country. The annual fee currently (April 2023) ranges between €4,800 and €20,000 with the possibility of a full waiver of the fee for GDPpc below a defined threshold. It is an honour to welcome the meteorological service of the Republic of Yemen as the first new licensee under the modified licence structure. To prepare the future support for COSMO-ICON licensees, the Priority Project C2I4LC ('Establishing COSMO to ICON migration for Licensees' Countries') started in September 2022 and is led by Bogdan Maco of the Romanian Meteorological Service NMA. A core task of the preparatory PP is the set up of a ticketing system with a single point of contact for support requests.

There are two more new projects which started in recent months. The Priority Project CARMEns ('Cosmo Application of Rfdbk/MEC on ENS') started in September 2022 under the lead of Amalia Iriza-Burca (NMA) and extends the successful implementation of the MEC-Rfdbk system for verification of deterministic forecasts (previous PP CARMA) to forecasts of ensemble prediction systems. In March 2023, the Priority Task EPOCS ('Evaluate Personal weather station and Opportunistic sensor data CrowdSourcing') started and is led by Joanna Linkowska of the Polish Meteorological Service IMGW. Its aim is the assessment of the applicability of alternative weather data acquired by the Personal Weather Stations and other Opportunistic Sensors into research and operations activities at the level of national weather services. The main focus is on the development and testing of data quality control algorithms.

In this issue of the newsletter, the routinely performed evaluation of COSMO and ICON models over the Common Areas is presented for 2021-2022. There are two research contributions in COSMO Newsletter No 22. The one is a model sensitivity study of ICON for the Central Mediterranean area as further important input for the transition from COSMO to ICON model. The other contribution reports on operational forecasts for air dispersion of hazardous pollutants as a topic of actual relevance.

I would like to thank all contributors to the COSMO Newsletter No. 22 and the editorial team, in particular Mihaela Bogdan and Massimo Milelli, for the effort put into setting up this issue of the Newsletter.

Looking forward to the COSMO General meeting in Poland in September 2023,

Gebhardt Christoph  
COSMO Scientific Project Manager



Figure 1: Participants of the 21th COSMO General Meeting in Athens, Greece

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