

Subject: CCMM Symposium, WMO Headquarters, Geneva, 23-25 February 2015

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To: BSC-ES

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Introduction

- Objective:

The Symposium on Coupled Chemistry-Meteorology/Climate Modelling (CCMM) was initiated and supported by the European Framework for Online Integrated Air Quality and Meteorology Modelling (EuMetChem - COST Action 1004; <http://www.eumetchem.info/>) in which José M^a Baldasano and Oriol Jorba are involved. EuMetChem focuses on a new generation of online integrated Atmospheric Chemical Transport (ACT) and Meteorology (Numerical Weather Prediction and Climate) modelling with two-way interactions between different atmospheric processes including chemistry (both gases and aerosols), clouds, radiation, boundary layer, emissions, meteorology and climate.

- Funding: European Cooperation in Science and Technology (COST) Action ES1004: <http://www.eumetchem.info/>, World Meteorological Organization (WMO) Commission for Atmospheric Sciences (CAS) and World Climate Research Programme (WCRP).
- Agenda: Check in the following link: http://eumetchem.info/ccmm/Agenda_CCMM.pdf
- Attendants: EuMetChem - COST Action 1004 members and experts on Coupled Chemistry-Meteorology/Climate Modelling and data assimilation.

Results

The main focus was on aerosols and their feedbacks/forcing, with the following scopes and frameworks:

- Coupled chemistry-meteorology (weather and climate) modelling (CCMM): approaches and requirements;
- Key processes of chemistry-meteorology interactions and their descriptions;
- Aerosol effects on meteorological processes and Numerical Weather Prediction (NWP);
- CCMM for air quality and atmospheric composition;
- CCMM for regional and global climate modelling;
- Model validation and evaluation;
- Data requirements, use of observations and data assimilation;
- Outlook and future challenges.

All the presentations and posters will be available in the website of the event.

There is an open Special Issue jointly organized between ACP and GMD on “Coupled chemistry–meteorology modelling: status and relevance for numerical weather prediction, air quality and climate communities (SI of EuMetChem COST ES1004)”. Editor(s): A. Baklanov, B. Vogel, and S. Freitas http://www.atmos-chem-phys-discuss.net/special_issue241.html

During the discussion session after the meeting, two points were highlighted:

- **Model evaluation.** It is necessary to define common protocols for the model evaluation and to have access to high-quality observations.
- **Coupled chemistry-meteorology modelling (CCMM) operational models.** At present, there are few groups able to build an operational system based on CCMM. In this sense, the experience of the ES-BSC can be strategic.

Networking activities:

- **Alexander Baklanov** (Atmospheric Research and Environment Branch Research Department and responsible of WMO). He is the coordinator of the EuMetChem and also the Officer-in-charge of the SDS-WAS project. He was really enthusiastic with the participation of the ES-BSC in future calls on CCMM.
- **Deon Terblanche** (Director of the Atmospheric Research and Environment Branch Research Department and responsible of WMO). He will attend to the BSC Annual Meeting on 1st April in Barcelona. During his visit in Barcelona, it will do the announcement of the acceptance of the SDS-WAS Implementation Plan.
- **Georgiy Stenchikov** (KAUST Campus). Possible collaboration in the framework of the mineral dust modelling activities. His group is one of the most active on aerosol observations in Middle East.
- **Peter Colarco** (NASA). He is one of the former members of the ICAP initiative. We were discussing about the organization of the next ICAP meeting in Barcelona.
- **Slodoban Nickovic** (SEEVCCC). He is a well-known collaborator of our department. To define futures collaboration activities, it proposed to organize a meeting between ES-BSC and SEEVCCC to explore and analyse possible options of research (as regional climate) and funds.
- **Milan Dacic** (now, WMO Representative for Europe of the Regional Office for Europe). We met him when he was the Director of the Republic Hydrometeorological Service of Serbia during an HPC collaboration with this institution. He is really interesting to continue collaborating with the ES-BSC.