

Invitation to Conference on the coming Copernicus CO₂-mission and its potential impact in Denmark

Date
1st March, 2022

Time: 29/3 2022, 9:00-16:00 Place: The Danish Meteorological Institut (DMI), Lyngbyvej 100, København Ø.

The Danish Meteorological Institute (DMI), the Danish Earth Exploration Partnership (DEEP) and the Danish Forum for Space-based Innovation and Research are delighted to invite you to the first Danish conference about the new Copernicus CO₂-satellite mission and the monitoring of greenhouse gases.

EU, ESA, EUMETSAT and ECMWF plan to build, launch and operate a new series of satellites to expand the existing Copernicus satellite program. One of these expansion satellites, the CO₂ Mission (CO₂M), will be able to observe greenhouse gases, such as CO₂, CH₄ and NO₂ in the atmosphere with weekly revisit times. The observations from the CO₂M will provide a unique and independent source of information that will complement the existing bottom-up assessments. In addition, these observations can be used to evaluate the effectiveness of policy measures, and to track their impact towards decarbonizing Europe in accordance with the Paris Agreement and meeting national emission reduction targets. Also the measurements from the CO₂M will reduce current uncertainties in estimates of CO₂ emissions from the combustion of fossil fuel at national and regional scales

Development activities are ongoing within Copernicus Atmospheric Monitoring Service (CAMS) and Horizon 2020 projects to develop a future Copernicus CO₂ emissions monitoring service. There is, however, currently a lack of knowledge and competences in Denmark to support the national emission assessments based on the new service and advice Danish policymakers about their relevance and usability for meeting national reduction targets.

To gain the maximum benefit from the new satellite observations, there is a need for a national initiative to build up the required competences at national level to understand the complex processes of deriving greenhouse gas emissions from satellite observations with input from atmospheric models, in situ observations and LULUCF models for Denmark.

As a first step in this direction, the conference assembles all relevant Danish expertise and institutions with the aim of learning about the planned CO₂M and the supporting European downstream activities within Copernicus. In addition, the

conference will present a review of the existing competences within Denmark regarding the monitoring and assessment of greenhouse gas emissions using independent CO₂ measurements. The ambition is to be able to identify the main challenges as well as the way forward.

Coffee and lunch will be provided by DMI. Please sign up for the meeting by sending an email to Pia Wind (pwi@dmi.dk) before March 24.

For further details about the conference, feel free to contact Jacob L. Høyer (jlh@dmi.dk)