

## climate change initiative

# → CMUG NEWSLETTER

June 2025

### CMUG News & Science Highlights

- ▣ Extensions to the Science Studies for work on the options have been approved by ESA and the contract signed with the Met Office
  - There was a significant CMUG presence at the Living Planet Symposium in Vienna with 9 CMUG partners attending, 5 talks, 3 posters and a CMUG feedback session at the ESA Climate Booth. Axel Lauer and Amy Doherty also took part in a panel discussion introducing the newly formed ESMO Working Group for Observations for Researching Climate (WGORC)
  - ESMValTool v2.12.0 released including recipes for Cloud\_CCI data. Updates to Ozone CCI data for CMIP7 REF
  - Starting June 2025 Hannah Findley has taken over from Hannah Griffith as the CMUG communications officer.
  - A paper has been submitted to Geosci. Model Dev. L. Bock, A. Lauer, and J. Runge, Quantifying the causal effect of cloud controlling factors on marine stratocumulus clouds.
  - The second CMUG Integration Meeting of this phase was held in October at Harwell, agenda and links to the presentations can be found [here](#)
  - 4 CSWG meetings were held on ocean biogeochemistry, vegetation, wetland methane emissions and ice sheets

### Outreach activities

- Results of the Ice sheets study were presented at the Danish Antarctic Science Seminar on 6<sup>th</sup> March.
- IPSL participated in the Snow CCI User Workshop (23/01/2025).
- A poster on Machine learning for wetland methane emission was presented at AGU in December
- A poster on Ocean biogeochemistry was displayed at the OceanPredict '24 Symposium, 18 to 22 November
- A virtual ESMValTool workshop was held 19-21 November 2024. An important topic was getting ready for CMIP7.

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## CMUG at the Living Planet Symposium 2025, Vienna, Austria

### Presentations

- Amy Doherty (MO): The Climate Modelling User Group, Current and Future Work
- Axel Lauer (DLR): Benchmarking Earth System Model simulations with ESMValTool and ESA CCI satellite data
- Lisa Bock (DLR): Quantifying and evaluating the influence of cloud controlling factors on cloud properties using causal inference
- Rob Parker (NCEO): Towards a Digital Twin of Tropical Wetland Methane Emissions
- Kirsti Salonen (ECMWF): Cloud and aerosol analysis with the ECMWF system

### Posters

- Oscar Rojas-Munoz (Meteo France): Assessing the Impact of Updated Land Cover and Snow Assimilation on Soil Moisture and Land Surface Temperature: Simulations in Eurasia
- Richard Jones (MO): Using ESA CCI ECVs to Provide Support for and Guide National and International Climate Action
- Cristina Ruiz Villena (NCEO): Machine Learning emulators of land surface model JULES for a future Digital Twin of drought in Africa

### Climate booth

- CMUG held a drop in session at the ESA Climate Booth

### Upcoming:

The next Quarterly Progress Meeting will be 9am-12noon on Wednesday 9th July.

The next CSWG will be held in summer 2025

The next Integration Meeting will be held in Spring 2026

## CMUG Key Contacts per CMUG Partner

### Met Office

- Amy Doherty (Project Manager)
- Richard Jones (Science Lead)
- Hannah Findley (Comms)
- David Ford (Ocean biogeochemistry)
- Debbie Hemming (Vegetation phenology)
- Rob King (Vegetation phenology)
- Nic Gedney (Methane emissions)

### DLR

- Axel Lauer (ESMValTool / Cloud and aerosols / Machine learning)
- Lisa Bock (Machine Learning)
- Veronika Eyring (Machine learning)

### ECMWF

- Angela Benedetti (Cloud and aerosols)
- Kirsti Salonen (Cloud and aerosols)

### DMI

- Shuting Yang (Ice sheets)
- Ruth Mottram (Ice sheets)

### BSC

- Pablo Ortega (Ocean biogeochemistry)
- Jeronimo Escribano (Cloud and aerosols)
- Joan Llorc (Ocean biogeochemistry)

### UKRI-STFC (CEDA)

- Alison Waterfall (Obs4MIPs)

### IPSL

- Amelie Cuyenet (Snow dynamics)
- Philippe Peylin (Snow dynamics)
- Catherine Ottlé (Snow dynamics)

### Météo France

- Jean-Christophe Calvet (Land surface)

### SMHI

- Ulrika Willén (Ice sheets)

### CMCC

- Daniele Peano (Vegetation phenology)

### NCEO (University of Leicester)

- Robert Parker (Methane emissions)
- Cristina Ruiz Villena (Methane emissions)

### NCEO (University of Edinburgh)

- Paul Palmer (Methane emissions)

## CMUG Partner Contact per ECV

Below is a table that shows the corresponding CMUG contact information for each ECV project, including institutions and emails.

ECV	CMUG Partner	Institution	Email
Aerosols	Angela Benedetti	ECMWF	<a href="mailto:Angela.benedetti@ecmwf.int">Angela.benedetti@ecmwf.int</a>
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Anthropogenic water use	TBD	TBD	TBD
Biomass/AGB	Debbie Hemming	Met Office	<a href="mailto:Debbie.hemming@metoffice.gov.uk">Debbie.hemming@metoffice.gov.uk</a>
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Fire/Burnt Area	Jean-Christophe Calvet	Météo-France	<a href="mailto:Jean-christophe.calvet@meteo.fr">Jean-christophe.calvet@meteo.fr</a>
Glaciers	TBD		
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Precursors to aerosol and ozone	TBD	TBD	TBD
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