

climate change initiative

→ CLIMATE MODELLING USER GROUP

# Overview of CMUG next phase proposal

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Task 1: Climate Community Requirements Collection and Analysis

Task 2: CCI ECV Contributions to WCRP's obs4MIPs

Task 3: CMUG Support to the Future Evolution of obs4MIPs

Task 4: CCI contributions to ESMValTool

Task 5: Cross-ECV Climate Science Studies

- Optional Studies for Task 5

Task 6: Communications and Outreach

Task 7: Management



## User requirements [update] for all ECVs

Tasks, undertaken during first [and last] six months of the project:

- Identify expert users
- Carry out interviews
- Analyse results
- Incorporate updates to the GCOS implementation plan into analysis
- [Incorporate clarifications requested by ECV projects into analysis]
- Write up and update existing requirements document
- Circulate requirements document across all of ESA CCI



## Regular outputs and updates

- CMUG Integration Meeting report
- CMUG slide show and poster
- CMUG newsletter
- CMUG website content

## Underpinning and ad hoc activities

- Liaise with Knowledge Exchange
- Participate at Relevant Events
- Promote CCI ECV Data Sets





# Task 5: Cross-ECV Climate Science Studies



- Machine Learning to advance climate model evaluation and process understanding
- Assessment and evaluation of the role of vegetation on hydrometeorological processes
- Impact of integrating CCI LC data in the ISBA land surface model
- Seasonal predictability of Ocean Biogeochemistry and potential benefits of ESA CCI data assimilation
- Cloud and aerosol analysis study
- Snow Dynamics impacts on temperature / high latitude climate
- Atmospheric drivers and feedback processes affecting the Greenland and Antarctic ice-sheets in observations and regional climate models





All studies listed in Task 5 have proposed optional studies building on those in Task 5

In addition, a further optional study was included:

- Using Machine-Learning to Evaluate and Understand our Capability to Model Tropical Wetland Methane Emissions



# CMUG Partners next phase



- ESA: [Simon Pinnock](#)
- Met Office: [Amy Doherty](#), [Richard Jones](#), [Hannah Griffith](#), [David Ford](#), [Debbie Hemming](#), [Rob King](#)
- DLR: [Axel Lauer](#), **[Lisa Bock](#)**, [Veronika Eyring](#)
- MPI-M: [Dirk Notz](#)
- CNRM: [Jean-Christophe Calvet](#)
- ECMWF: [Angela Benedetti](#)
- BSC: [Pablo Ortega](#), [Enza Di Tomaso](#), **[Eleftheria Exarchou](#)**
- SMHI: [Ulrika Willén](#)
- IPSL: [Frédérique Cheruy](#), **[Catherine Ottlé](#)**, **[Philippe Peylin](#)**
- CEDA/UKRI-STFC: [Alison Waterfall](#)
- **CMCC: [Daniele Peano](#)**
- **DMI: [Shuting Yang](#), [Ruth Mottram](#)**
- **UoL: [Rob Parker](#)**

