climate change initiative

→ CLIMATE MODELLING USER GROUP

CMUG Integration Meeting

13:00 BST/14:00 CET, 04 October 2021 to 16:00 BST/17:00 CET 05 October 2021

Amy Doherty CMUG Project Manager

cmug cci

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Welcome to the 10th CMUG Integration meeting

Agenda at:
https://climate.esa.int/documents/1349/CMUG_IM_FinalAgenda_yIN4Gqm.pdf

Presentations and Posters at
https://climate.esa.int/en/projects/cmug/publications/cmug-integration-meeting-10/

Technical issues please contact
Hannah.Griffith@metoffice.gov.uk

Thank you to all Chairs and Rapporteurs for their help with the running of this meeting

Welcome to the 10th CMUG Integration meeting

- CMUG Overview
- CMUG outputs – documents and experiments
- Purpose of the Integration meeting
- Objectives of each session

Agenda at:
https://admin.climate.esa.int/documents/1349/CMUG_IM_FinalAgenda_yIN4Gqm.pdf

CMUG Partners

CMUG consists of 9 partners plus ESA:

- Met Office
- DLR
- MPI-M
- Météo-France
- ECMWF
- SMHI
- IPSL
- BSC
- CEDA/UKRI-STFC

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Institut Pierre Simon Laplace

METEO FRANCE

ECMWF

SMHI

BSC

Max-Planck-Institut für Meteorologie

UKRI Science and Technology Facilities Council

RAL Space

DLR

Met Office Hadley Centre

CMUG Partners

- ESA: Simon Pinnock
- Met Office: Amy Doherty, Richard Jones, Hannah Griffith, David Ford, Debbie Hemming, Rob King, Erasmo Buonomo
- DLR: Axel Lauer
- MPI-M: Andreas Wernecke, Dirk Notz
- Météo-France: Jean-Christophe Calvet
- ECMWF: Angela Benedetti
- BSC: Pablo Ortega, Enza Di Tomaso
- SMHI: Ulrika Willén
- IPSL: Frédérique Cheruy
- CEDA/UKRI-STFC: Alison Waterfall

CMUG: Climate Modelling User Group

"ESA has established CMUG to place a climate system perspective at the centre of its Climate Change Initiative (CCI) programme, and to provide a dedicated forum through which the Earth observation data community and the climate modelling and reanalysis community can work closely together. CMUG will work with the Essential Climate Variable CCI projects to achieve this goal."

CMUG activities:

- Gather user requirements for ECV data sets
- Quality assessments
- Outreach (e.g. newsletters)
- Coordinate forums for communication (like the Climate Science Working Group – CSWG)
- Publicity for the ECV datasets to the climate research and monitoring communities
- ECV inclusion in databases such as obs4MIPs and the Copernicus Climate Data Store

Current CMUG outputs (aside from experiments)

- Foresight report
- User requirements document
- Review of documentation from the ECV projects
- CSWG meetings
- Newsletters
- Outreach
- Expanding reach of CCI datasets

Climate Science Working Group meetings

- Usually held ever quarter
- All ECV projects and their CRGs (Climate Research Groups) invited
- Subset of ECVs discussed at each meeting
  - Oct 2020: Sea Ice, SST and Salinity
  - Jan 2021: Fire, LC and Biomass
  - May 2021: Lakes, Snow and Permafost
- Past meeting minutes can be found on the CMUG SharePoint site at

https://metoffice.sharepoint.com/:f:/r/sites/CMUGExt/External%20Documents/04.%20CSWG?csf=1&web=1&e=08inkf

Current CMUG Experiments and technical work

WP3: Quality Assessment of CCI products

Jean-Christophe Calvet, Meteo-France

- Consistency and interaction between datasets
- Constraining models using CCI data
- CCI data for model evaluation
- Use of CCI data in reanalysis

WP4: Model Intercomparison type experiments

Andreas Wernecke, MPI-M

- Using CCI data to evaluate and develop climate models
- Comparing CCI data with other observations

WP5: Adaptation of climate evaluation tools

Axel Lauer, DLR

- ESMValTool
- obs4MIPs
- CMF – Climate Monitoring Facility

Purpose of the CMUG Integration Meeting

- **Discuss achievements** (science highlights) [Tuesday 9-12 (10-1)]
- **Feedback from CCI projects** on CMUG output [Monday 3-4 (4-5), Tuesday 10:30-12 (11:30-1)]
- **Plans for next phase**
  - An improved set of deliverables [Monday 3-4 (4-5), Tuesday 2:30-3:15 (3:30-4:15)]
  - Early ideas for experiments [Tuesday 1-2 (2-3)]
- With this meeting we hope to kick off an ongoing conversation with the ECV projects who we hope will be invested in the CMUG outputs for the next phase

Welcome to the 10th CMUG Integration meeting

13:00 BST/14:00 CET, 04 October 2021 to 16:00 BST/17:00 CET 05 October 2021

Today's Agenda

13:20 – 13:50 (14:20-14:50): Introduction from CMUG | Amy Doherty, CMUG project manager

13:50-14:00 (14:50-15:00): CMUG contribution to Obs4MIPs | Alison Waterfall (CMUG/CEDA)

14:00 – 14:30 (15:00-15:30): ESMValTool and Feedthrough to AR6 | Axel Lauer (CMUG/DLR)

14:30 – 15:00 (15:30-16:00): Afternoon Break

15:00-16:00 (16:00-17:00): Maximising CMUG contribution to CCI in future - *break out rooms*

Tomorrow's Agenda

9-10 (10-11): CMUG Science Highlights since last Integration Meeting

10:00-10:30 (11-11:30): Morning Break

10:30 – 12 noon (11:30-13:00): Discussion of science Highlights - *break out rooms*

12:00-13:00 (13:00-14:00): Lunch

13:00-14:00 (14:00-15:00): Future CMUG Experiments – *break out rooms*

14:00-14:30 (15:00-15:30): Afternoon Break

14:30-15:15 (15:30-16:15): Future CMUG plans – Plenary

15:15-16:00 (16:15-17:00): Wrap up and look forward | Richard Jones (CMUG/MO)

Break out rooms to discuss the future CMUG contribution to CCI

- How useful are
  - The User requirements document?
  - The Foresight report?
  - The reviews of ECV project documentation?
  - The newsletter?
  - The web pages (CDF)?
  - CSWG meetings?
- What improvements would you like to see?
- What other activities would it be useful for CMUG to engage with or report on?
- Are you aware of the efforts of CMUG to get CCI datasets onto obs4MIPs/CMF/ESMValTool? Are these of value?
- What other suggestions do you have for CMUG to support the CCI projects?

Tuesday 10:30-12 (11:30-1)

Break out rooms to discuss CMUG science highlights – split by system

- Ocean
- Land
- Cryosphere
- Atmosphere

Posters outlining the science highlights can be found here: https://climate.esa.int/en/projects/cmug/publications/cmug-integration-meeting-10/

Future CMUG experiments for next phase – break out rooms

- Atmosphere
- Ocean
- Land
- Cryosphere

See slides, posters and agenda here:
https://climate.esa.int/en/projects/cmug/publications/cmug-integration-meeting-10/