

Open call for membership of the Task Team on Model Documentation for CMIP7

Model intercomparison projects are essentially about designing experiments with specific requirements. They involve groups running simulations which conform to the requirements, and which produce data that can be compared with both other simulation data and observations. Interpreting the data depends on understanding the details of the models used and how they conform to the experimental requirements. This process depends on a well-constructed documentation provision so that the models can be easily configured, and their data outputs easily compared.

Historically (pre-CMIP5), the lack of comprehensive, single-source documentation meant that model providers and data users were required to infer information from the published record, as well as personal contacts, websites and internal documents - a process that could not always guarantee results. To remedy this, and to cope with the increasing complexity of the CMIP project design, the creation of centralised CMIP documentation was undertaken during the fifth and sixth phases under the banner of [ES-DOC](#) (Earth System Documentation), but with mixed results. This task team will build on these experiences with the aim of devising a practical and sustainable documentation strategy for CMIP7.

Desired experience

We are looking to assemble a multidisciplinary group of experts representing the range of CMIP documentation stakeholders, who may have experience of one or more of the following: CMIP experiment design, CMIP model simulation, use of CMIP datasets, creation of ES-DOC documentation for CMIP6, and use of the ES-DOC documentation for CMIP6.

Task Team Objectives

The overarching goal of this task team is to design a strategy for documenting the CMIP7 workflow (from experimental design all the way to data analysis) that satisfies the needs of both data creators and data users.

Early TT objectives will be:

1. Define the CMIP7 stakeholder use cases that will inform the documentation requirements for CMIP7:

- a. Compile examples of the scientific questions which CMIP7 stakeholders require to be answerable via ES-DOC.
 - b. Consider which types of documentation (e.g., experiment definitions, model formulations, etc.) should be collected.
 - c. Consider the depths of detail that need to be collected for each documentation type.
2. Assess how the CMIP6 infrastructure that is used to create and view documentation should be adapted for CMIP7.
 3. Create a realistic CMIP7 timeline for the completion of documentation tasks by the modelling groups and infrastructure providers.

Coordination with other CMIP TT, WCRP activities and wider stakeholders

Documentation of the modelling workflow has wide application to stakeholders both within and without the climate modelling/CMIP communities, i.e., any creators and users of model experiment outputs. Direct beneficiaries could be the [Earth System Modelling and Observations \(ESMO\)](#) WCRP core project; the [Explaining and Predicting Earth System Change](#) WCRP Lighthouse activity; and the [Earth System Grid Federation \(ESGF\)](#) for the management, dissemination, and analysis of model output and observational data; as well as climate service providers e.g., [Copernicus Climate Change Services](#).

Time commitment

Meetings are expected to take place regularly, every 2-3 months, and more frequently as required and at the discretion of the TT Lead. There may be times when there is more or less work depending on the activities undertaken (e.g., a peak period may be associated with a workshop or paper published by the TT). TT members are expected to commit appropriate time to this activity, at around 5-10% FTE. Most meetings will be online, with some out-of-hours working required to the challenges of time zone coordination. It is envisioned that the timescale of this TT will be 18 months.

Remuneration

These are not paid roles.

How to apply

Applications should be submitted via [this form](#) before 18:00 UTC on 19th September 2022.

Contact and further information

The point of contact for this TT is David Hassell (david.hassell@ncas.ac.uk), NCAS and the University of Reading, UK. Please contact the CMIP-IPO (cmip-ipo@esa.int) if you have any general questions or require further information.