



## **WGCM23**

**9, 15, 16 December 2020**

### **Online session**

#### **Action list**

1. Governance (WGCM Co-chairs, special session around July 2021): discuss WGCM, WIP and CMIP ToRs (including linkages to WGNE), structure, expertise, membership/composition and group size as part of CMIP6+ and CMIP7 planning. Ensure central coordination of WGCM, WIP and CMIP (with obs4MIPs and ana4MIPs) via the CMIP-IPO
2. Publications (Karl, Veronika): follow up on the invitation to CMIP and WIP by Nature for a review paper
3. Forcings (CMIP Panel Chair and CMIP-IPO): review list and update cycle; plan support and coordination of forcings (input4MIPs or the-like) datasets asap for CMIP experiments going forward; plan elements in parallel as much as possible to avoid bottlenecks leading to delays
4. Scenarios (CMIP Panel Chair): engage with IAM community and IPCC WGII and III to understand plans and schedule of new scenarios
5. Survey (March 2021, CMIP Panel Chair and CMIP-IPO):
  - a. Audience: WGCM and other WCRP modelling groups, MIP and forcing groups, infrastructure providers, downstream users, analysts, service and policy. WGCM members to provide links to some regional stakeholder groups.
  - b. Topics:
    - i. Consider potential separation of model development (e.g. DECK, historical simulations), science (MIPs) and “service” (e.g. ScenarioMIP)?
    - ii. Re-evaluation of MIP criteria (e.g. baseline number of modelling groups; cost, emissions/CPU hrs in contrast to benefit)?
    - iii. Approach for emerging MIPs?
    - iv. Gradual evolution of CMIP6 to CMIP7, including CMIP6+ as the potential “leverage what we have” opportunity with minimum additional investment for contributing modelling groups)?
    - v. Importance of DECK vs the MIPs?
    - vi. Stakeholder engagement in CMIP7?
    - vii. Data usage, downloads?
    - viii. Data requests, needs and priorities?
    - ix. Use of cloud infrastructure?
    - x. Nimble/agile approach vs data standards enforcement?
    - xi. Modelling centres’ constraints?
    - xii. Timeline? (e.g vs IAM, AIMES)

6. MIPs (CMIP Panel Chair):
  - a. cost (Balaji V.): encourage contribution of modelling groups to CPMIP to identify cost (CPU, storage, staffing, carbon footprint)
  - b. documentation: ensure registration of intended experiments (ala CMIP6\_CVs using version control, e.g. CMIP7\_CVs) during documentation drafting to allow for iteration which will catch issues before they are finalized. In addition, this will ensure cohesion and consistency across experiments scattered across the separately managed MIPs
  - c. consider possible separation of operational and research MIPs
  - d. review minimal number of modelling groups for MIPs
  - e. consider bridging science questions across MIPs
7. Data request (WIP Co-chairs):
  - a. identify data usage, needs, downloads as background to survey
  - b. address variable priorities to avoid all data becoming high priority (and freeze set of variables sooner?). Consider using CMIP6 as 'default' starting position.
8. Resourcing (CMIP Panel Chair and CMIP-IPO): follow-up on support requirement to high priority elements identified in the WMO Res67 recommendations: office, data request, QA, forcings, standards, infrastructure, model documentation, historical simulations and projections)
9. Data policy (WGCM Co-chairs): invite IPCC to make a proposal for exemption to ShareAlike policy for consideration by WGCM; consider implications beyond IPCC for final decision and ensure wider agreement (e.g. Model-Data-Home SG)
10. MME (Greg Flato): develop a concrete proposal for WGCM consideration exploring interest to work on model independence, MME statistics, combinations, etc
11. Model evaluation (ESMValTool and CMEC): consider how frameworks could operate more seamlessly in the context of cloud-computing and the need to incorporate 'diagnostics-on-the-fly' as the high-resolution model data volumes increase.
12. WCGM24 session (WCRP secretariat & NCAR): in conjunction with WGNE36, week 1-5 Nov 2021 at NCAR, USA