Model development since CMIP6

ACCESS - Australian Community Climate and Earth System Simulator

CMIP6 application and analysis
Equilibrium climate sensitivity
Large ensemble ESM

Model resolution
Current - Ocean/sea-ice 1 deg -> 1/4 deg
 Planned - Atmosphere N96 -> N216
New Science directions

ACCESS - Australian Community Climate and Earth System Simulator

ACCESS-NRI
National Research Infrastructure
+28 FTE to support codes, data, compute

Climate Systems Hub
National Environmental Science Program
Model improvement and evaluation
Net zero carbon and emissions pathways

COSIMA-II
Australian Research Council
Ocean and sea-ice modelling -> MOM6
Supporting fundamental research

Australian Climate Service
Emergency Management Australia
National Resilience and Recovery Agency
Suggestions for CMIP7
Co-design sequence 2021-202X

ENGAGE
CMIP6 and CMIP7 surveys - Model groups, model users, stakeholders
Commence with strategic planning – what, who, when

ANALYSE
Learnings – data request, data volume, experimental prioritisation
Why do a CMIP7? Service and society

CO-PLAN
WCRP - ESMO and RiFS; CORDEX; IPCC-AR7 and Special Reports
Model groups, model users, stakeholders

CO-DESIGN
DECK and MIPs
Historical and ScenarioMIP
Forcings and timelines – don’t timequake CMIP/IPCC ever again ever