Word version of CMIP AR7 Fast Track v2 modelling centres consultation

**Only to be used to support development of consolidated responses. Only responses received through the survey form will be considered.**

Respondent Information

**Did you respond to the AR7 Fast Track v1 consultation?**

* Yes
* No

**Which CMIP modelling centre/group are you representing?** *You can submit this form either once per modelling centre, or once per model if your answers are different for the different models you use.*

[select from list or add new modelling centre]

**Name:** [Fill in e.g. John Bloggs]

**Position:** [For those who answered no to the first question, fill in]

**Do you plan to contribute simulations to the CMIP AR7 Fast Track given the timeline outlined (data delivery by end of 2026)?**

* Yes
* No

**If yes, when do you aim to start running spin up?**

**If yes, when do you aim to start running piControl?**

Planned model configuration

**Does your centre/group plan to run the Fast Track with a CMIP6-class model or a more recent version?** *Considering for CMIP6-class models the DECK already exists whereas for a more recent version DECK would have to be re-run. Select both if you may run some experiments with a CMIP6-class model and others with a more recent version.*

* CMIP6-class model
* More recent model version
* Both CMIP6 class and ore recent model versions

**Which model(s) do you plan to use to run the AR7 Fast Track (optional)?** *The models in the list below are the CMIP6 Source\_ids. If your model is not listed, please select 'Other' from the list and type the name of your model.*

*You can submit this form either once per modelling centre, or once per model if your answers are different for the different models you use. If you are submitting separately for each model, please only select the relevant model for the answers submitted here.*

[select form list of CMIP6 source\_ids, or write in other model]

**What model configuration do you expect to use for CMIP7 simulations?** *Please provide information on what model configuration you would use (based on the* [*"source type" definitions*](https://github.com/WCRP-CMIP/CMIP6_CVs/blob/master/CMIP6_source_type.json)*)*

[Select as many as needed from the list below]

* AER
* AGCM
* AOGCM
* BGC
* CHEM
* ISM
* LAND
* OGCM
* SLAB

**Is your modelling centre/group capable of running with CO2 emissions?**

* Yes
* No

**If yes, would you plan to run all historical/scenarios as emission forced runs or also concentration forced runs?**

* Emissions forced only.
* Both emissions and concentration forced runs.

**What resolution do you plan to run your model at for the Fast Track?** *Please provide planned model resolutions in kilometres for all model configurations and runs as relevant.* [Fill in text answer]

Data request

**Do you expect that your output will require additional variables to accommodate new ESM capabilities in a next generation model?**

[Select as many as needed from the list below]

* Dynamic ice sheets
* Dynamic vegetation with simulated plant production demography
* Wildfires with interaction emissions or land surface interactions
* Coupled biosphere and chemistry (e.g., isoprenes, biogenic volatile organic compounds)
* Ocean ecosystems (e.g. plankton, diatoms)
* Nitrogen cycle
* Other system level extensions to the CMIP6 class of ESMs

**There will likely be a limited Fast Track data request issued in 2024 and then a subsequent broader request that would satisfy all the requirements of the CMIP7 MIPs in 2026/7. How would you handle this situation?** *The timeline of the AR7 Fast Track data request is subject to confirmation of CMIP and IPCC AR7 timelines.*

[select the statement[s] which best applies]

1. We would re-run the Fast Track once the broader harmonized data request is available.
2. We would not re-run the Fast Track for the second data request and would only produce the variables for the Fast Track data request.
3. We would not re-run the Fast Track for the second data request, but would do our best to save the relevant output by following the CMIP6 data request in addition to the Fast Track request.
4. We would not run the Fast Track experiments on the Fast Track timeline and would wait until the fully data request to run any experiments.
5. We would not re-run all the Fast Track experiments but would consider running additional ensemble members for some of the experiments.

**If running the AR7 Fast Track experiments, which of the following characterizes your hopes for the data request?**

1. A compact data request of variables which have already been configured for the CMIP6 data request.
2. As above, but with a small number of new variables to reflect revised community priorities.
3. Inclusion of new variables to enable analysis of new model components.
4. An extensive request to enable exploitation of simulations by a broad range of community MIPs.

**If you are working on a model[s] for use in CMIP Community Mips after the Fast Track, do any of the following apply?**

[Please select the number of all the statements which apply]

1. We will be running out model for the DECK experiments.
2. We will be running our model for a selection of Fast Track experiments.
3. We will be running out model for a selection of Community MIPs.
4. We will support Community MIPs using our model, but expect them to run the model[s] and publish output.
5. We expect DECK experiments to run only once and to generate diagnostics for a broad range of Community MIPs.

Feedback on CMIP AR7 Fast Track proposal

Please refer to the [AR7 Fast Track supporting information document](https://wcrp-cmip.org/wp-content/uploads/2024/02/v2_supporting-information_Modelling-centres_FINAL.pdf) for updated details of the proposed Fast Track experiments including new experiments.

Please indicate prioritization (low, medium, high). Please only choose a maximum of four experiment groups for each prioritization category (low, medium or high). Once you have answered all questions up to RFMIP, you should have therefore selected a maximum of four experiment groups for each of low, medium or high priority. For each experiment group please also indicate the likelihood of delivery by end 2026, and any comments (including, if relevant, whether you will run with CMIP6-class or more recent model version).

|  |  |  |  |
| --- | --- | --- | --- |
| **MIP** | **Priority**   1. **High** 2. **Med** 3. **Low** | **Run before the end of 2026?**   1. **Very likely** 2. **Likely** 3. **Not likely** 4. **Do not plan to run experiments** | **Comment** |
| DCPP |  |  |  |
| ScenarioMIP |  |  |  |
| AerChemMIP |  |  |  |
| C4MIP |  |  |  |
| CFMIP |  |  |  |
| DAMIP |  |  |  |
| GeoMIP |  |  |  |
| LMIP |  |  |  |
| PMIP |  |  |  |
| RFMIP |  |  |  |

**With respect to the v2 proposed experiments above, what priority would you give to 2C and 4C Global Warming Level simulations?**

* Low
* Medium
* High

**With respect to the v2 proposed experiments above, what priority would you give to the prescribed vegetation-type experiments described in the WhatIfMIP proposal?**

* Low
* Medium
* High

**Does your centre/group plan to run with dynamic vegetation demography, prescribed vegetation demography, or both?**

* Dynamic vegetation demography
* Prescribed vegetation demography
* Both dynamic and prescribed vegetation demography

**Given the v1 consultation survey results, do you think the CMIP Panel should reduce the number of experiments to limit the number of simulation years?**

* Yes
* No, but provide ongoing guidance to optimize the compute across centres.
* No.
* Other

**If yes, please entre experiments that should be removed** [add text as appropriate]

**If supporting reduction through coordination across modelling centres/groups, please provide suggestions on format of coordination** [add text as appropriate]

**If no or other, please explain your response**  [add text as appropriate]

CMIP Forcings

*Please review the CMIP forcings section of the* [*supporting information document*](https://wcrp-cmip.org/wp-content/uploads/2024/02/v2_supporting-information_Open-community_FINAL.pdf) *before answering these questions.*

**Do you have any comments/concerns around the current plans for the delivery of forcing datasets?**

* Yes
* No

**If yes, please provide detail below** *[add text as appropriate]*

Requirements for guidance

As described in the [AR7 Fast Track v2 supporting information document](https://wcrp-cmip.org/wp-content/uploads/2024/02/v2_supporting-information_Modelling-centres_FINAL.pdf) the CMIP Panel, supported by the Strategic Ensemble Design Task Team, are developing recommendations/guidance on running the DECK experiments and spin up/equilibration and branching.

**Do you have any comments/suggestions for this recommendation/guidance development?** [add text as appropriate]

**When would you require this guidance or recommendations to be delivered?** [add text as appropriate]

**Are there any other areas that you would like the CMIP Panel to provide recommendations/guidance on?** [add text as appropriate]

Final comments

**Please add any other feedback on the AR7 Fast Track v2 proposal or other final comments here** *[add text as appropriate]*