

CMIP7 Data Request - Theory of Change model

Purpose

Ensure CMIP7 data is robust & applicable by providing global climate modelling centers with clear & consistent guidance for the production of CMIP7 data, including technical specifications & scientific justifications. It will be guided the CMIP Panel, co-developed with the CMIP community, and delivered on CMIP7 AFT timelines.

Inputs

Conventions & standards
(e.g. CF)

CMIP6 Data Request
[01.00.31]

WCRP Core Projects
& Lighthouse Activities

Baseline
Climate Variables
[ESM-BCV 1.4]

CMIP Panel & IPO
/ WCRP ESMO
Infrastructure
Panel (WIP)

MIPs, climate
science community
& CMIP data users

Global climate
modelling centres

Activities

Technical Implementation
Sub-Group (DR TISG)

CMIP7 Data Request
Task Team
(DR-TT)

Community surveys,
modelling centre surveys
& open meetings

Thematic Author Teams
& Steering Groups
(DR Themes)

DR TT Liaisons
& Cross-Theme
Working Group
(Harmonisation)

Outputs

DR7 software & API
(GitHub, python)

DR7 online database
(Airtable)

DR7 content export
& Webview
(GitHub, JSON, HTML)

DR7 documentation,
website & publications
(Zenodo & GMD)

Thematic Team publications
(GMD)

Outcomes

Technical alignment
between CMIP DR and
WCRP Infrastructure

Efficient
implementation into
CMIP7 production
workflows

Modelling centres can
make informed decisions
on data production

Community
participation in
& shared knowledge
of CMIP data

Community has
awareness of the scientific
opportunities in the CMIP7
data archive

Strategic alignment
between CMIP DR and
WCRP Activities

Impacts

CMIP data is findable,
accessible, interoperable
and reusable (FAIR)

Investment &
engagement grows the
quality & value of
CMIP data

CMIP data
underpins global climate
adaptation & mitigation
policy & planning

CMIP data drives
global scientific research
& innovation