

Knowledge Transfer to
Climate Modeling Centers
(WG 11)

Goals from Implementation Plans

General aims of this working group:

- Provide improved tools for simulation of cloudiness to modeling centers; &
- Provide innovative tools for evaluation of these simulations.

Specifically, our tasks from the implementation plan are:

- Provision of prototype MMF to modeling centers and collaboration on its application to climate models;
- Provision of improved parameterizations to climate modelers; &
- Provision of advanced diagnostics tools to climate modelers

This meeting

- Discussion of:
 - Merger with NWP working group
 - Our overall objectives for next few years
 - Near-term objectives & plans
 - Impediments / boundary conditions on interaction
- Presentation by Leo Donner on interactions between NCAR TIIMES institute & CMMAP

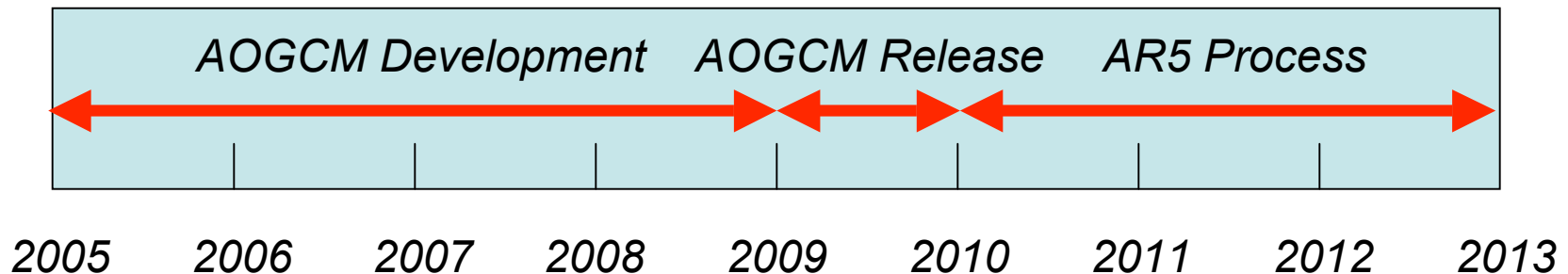
Opportunities and Challenges

- **Goals:**
 - Provision of prototype MMF to modeling centers and collaboration on its application to climate models;
 - Provision of improved parameterizations to climate modelers; &
 - Provision of advanced diagnostics tools to climate modelers
- **(Hypothetical) reasons for centers to engage:**
 - Demonstrable improvements of physical fidelity of parameterizations.
 - Utility of MMF and diagnostics to understand AOGCM behavior.
 - Breakthroughs in understanding cloud-climate feedbacks.
- **Impediments:**
 - NIH (“not invented here”)
 - IPCC and other competing priorities

The timeline for IPCC AR5

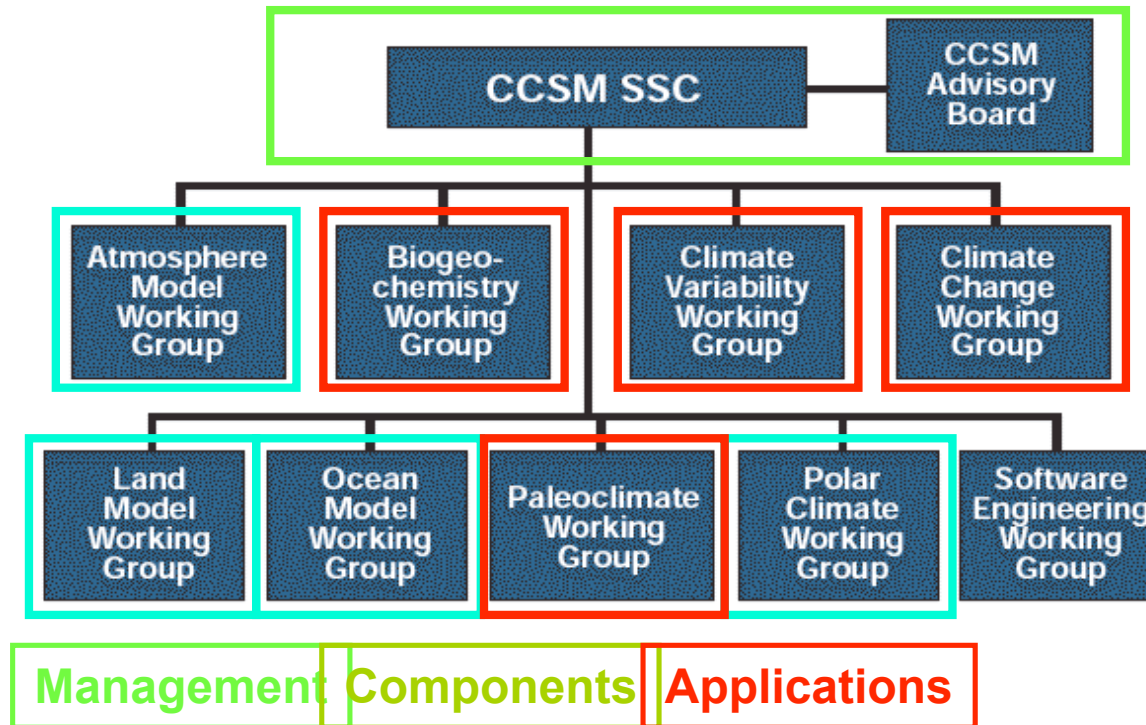
Assumptions:

- It is likely that the AR5 report will be issued 6 years after AR4, in 2013.
- Following the precedent in AR4, the simulations will have to be finished three years ahead, in 2010.
- **Therefore the climate modeling centers need to be ready in 2009 (at the latest).**
- **This means the modeling centers have just 3 years to accomplish our objectives.**
- **This has implications for the interaction of CMMAP with the centers.**



Information Exchange

- Conferences: ESM meeting at MPI 2007
- Workshops & special sessions of opportunity
- CCSM Atmospheric Model Working Group:



Interactions with the Modeling Groups

- IPCC AR5 means that the centers will become increasingly busy (distracted) over the next 3 years.
- How best to foster interactions?
One suggestion: students and post-docs.
- Sources of students and post-docs:
 - *Students and post-docs funded through CMMAP*
 - *Students and post-docs at the modeling centers.*
- Research topics:
 - *Differences in, e.g., MJO between CAM-SP, CAM, CCSM, etc.*
- Other mechanisms?