

A Community Earth System Model perspective on community modeling

Marika Holland
Climate and Global Dynamics Laboratories
NCAR



CESM Project Structure

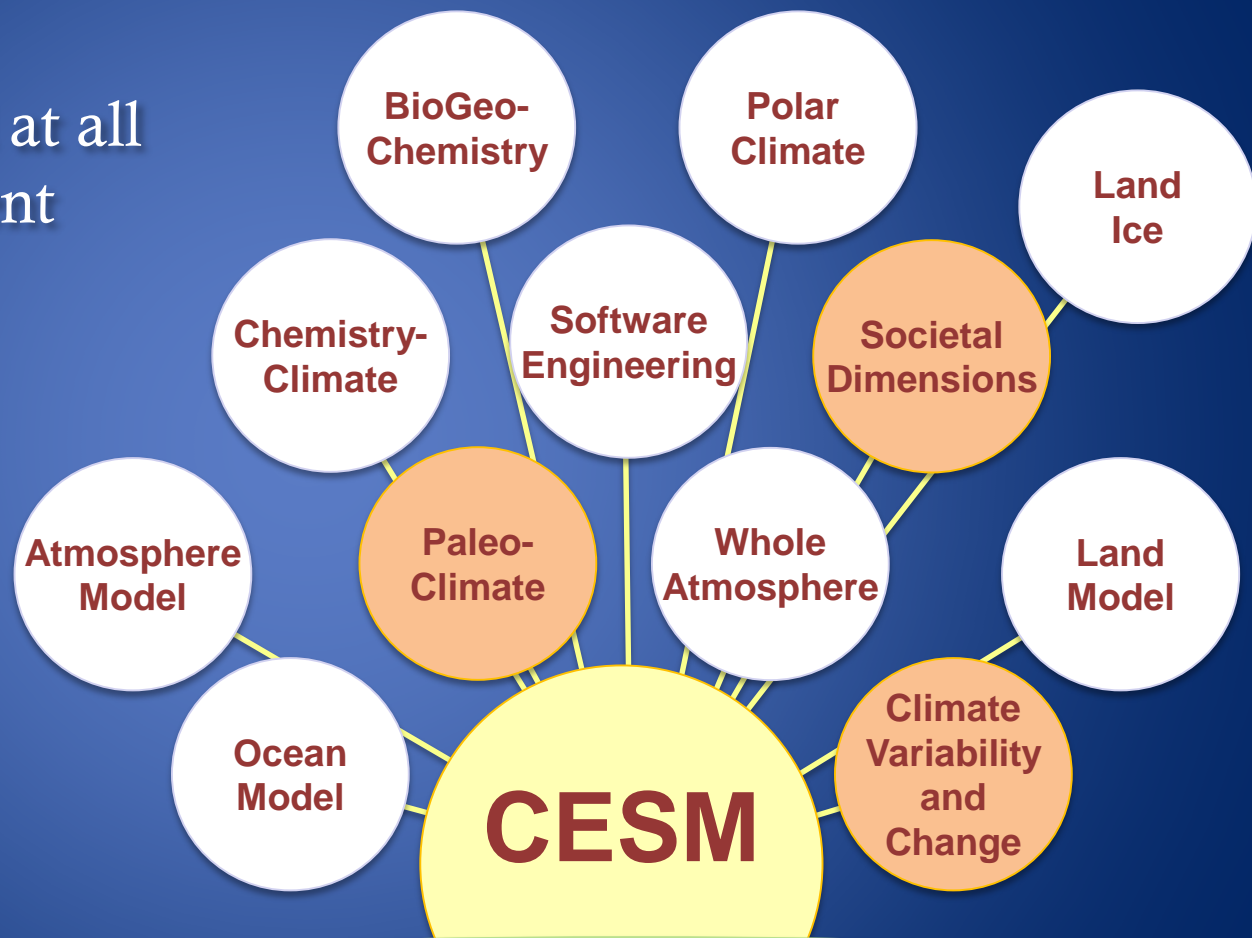
CESM Advisory Board

CESM Scientific Steering Committee

Community integrated at all levels of management

Working Groups open to all interested participants

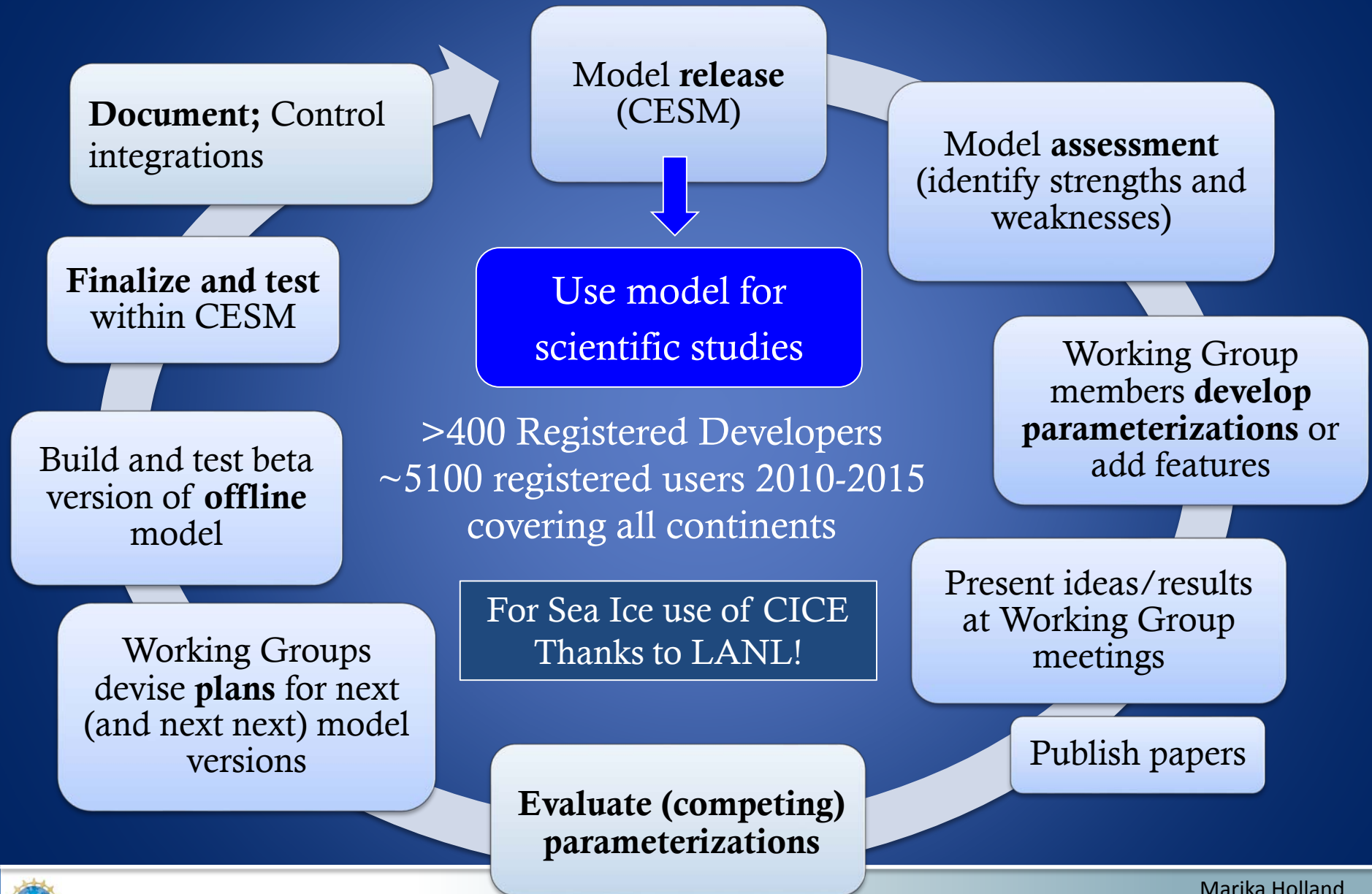
Most working groups have winter/spring meetings. Annual meeting in June.



<http://www.cesm.ucar.edu/management>



Community Model Development



Developer and User Support

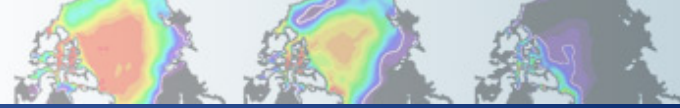
- Documented developers guidelines
- Model documentation – users & science guides
- DiscussCESM forums – Bulletin board help
- SE and Science liaisons
- Annual CESM tutorial – targeted at early career scientists
- Provision of diagnostic tools
- Provision of output from community simulations



“Community” in the CESM Project

- Project governance
- Model development process
- Availability of well-tested/documented code
- Dedicated community support
- Availability of model diagnostic tools
- Tutorials and training
- Availability of community simulations





Extra Slides



Community model access



Downloads over the last 5 years
~5100 registered users 2010-2015

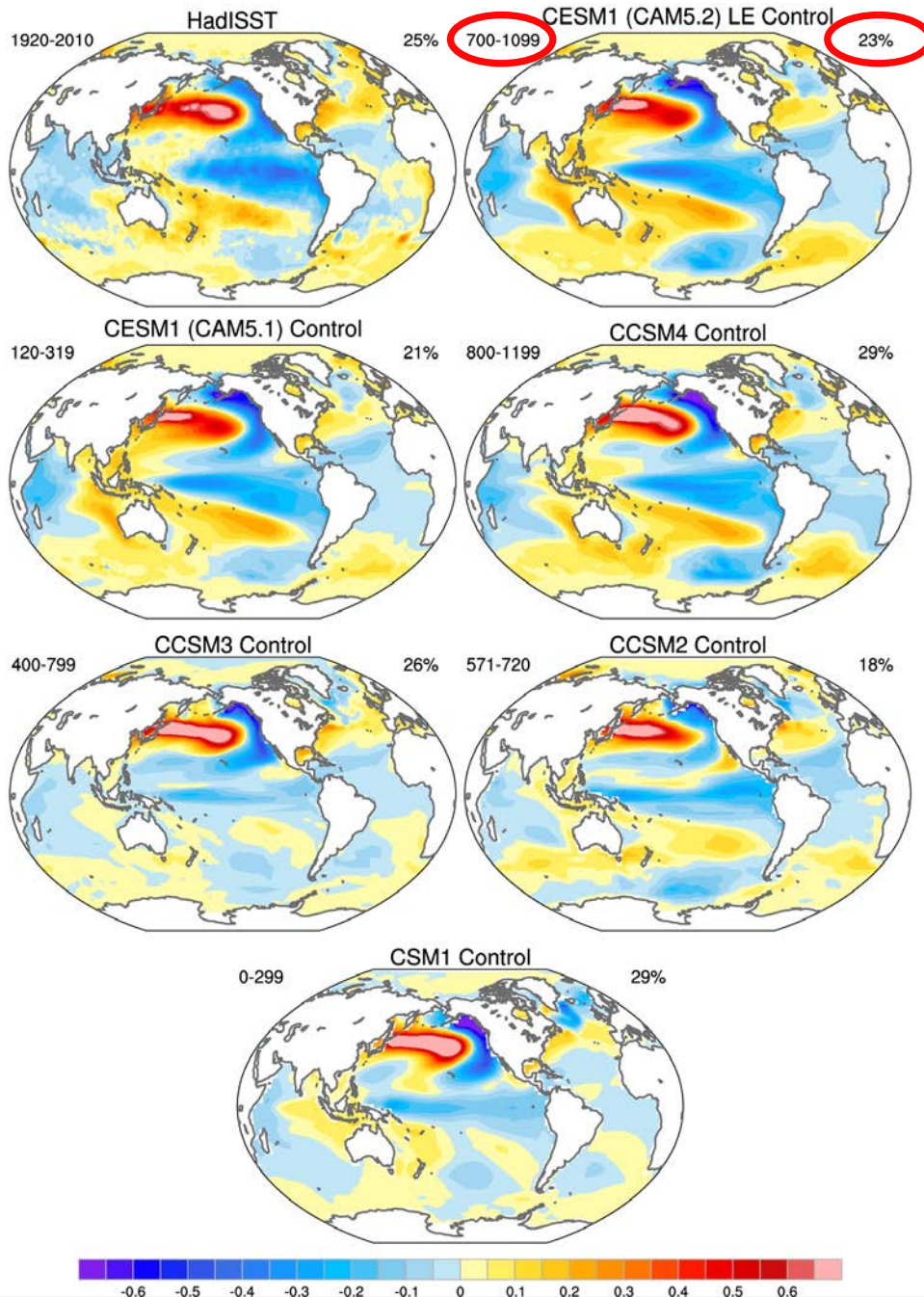


Climate Variability Diagnostics Package

Pacific Decadal Oscillation (Global SST Regressions on PC1 North Pacific SST)

Phillips, Deser, Fasullo,
EOS, 2014

PDO (Monthly)



CESM Community Support – Bulletin Board

- Effective for assessing community issues and providing support
- FAQs developed for commonly raised questions
- Allows community to help each other
- Statistics: >1600 users, ~24 new users/month, ~65 posts/month

NCAR UCAR | DiscussCESM

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FORUMS

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CESM - General

The Community Earth System Model (CESM) is a fully coupled, global climate model that provides simulations of the Earth's past, present, and future climate states.

Forum	Topics	Replies
Announcements	21	49
Bug reporting	134	394

FAQ: DATA OCEAN SLAB MODE (DOCN-SOM)

Log in or register to post comments

May 16, 2013 - 3:15pm

dballey

FAQ: Data ocean slab mode (DOCN-SOM)

I get numerous questions about the new SOM in the data ocean model of CESM. So, I thought it appropriate to...

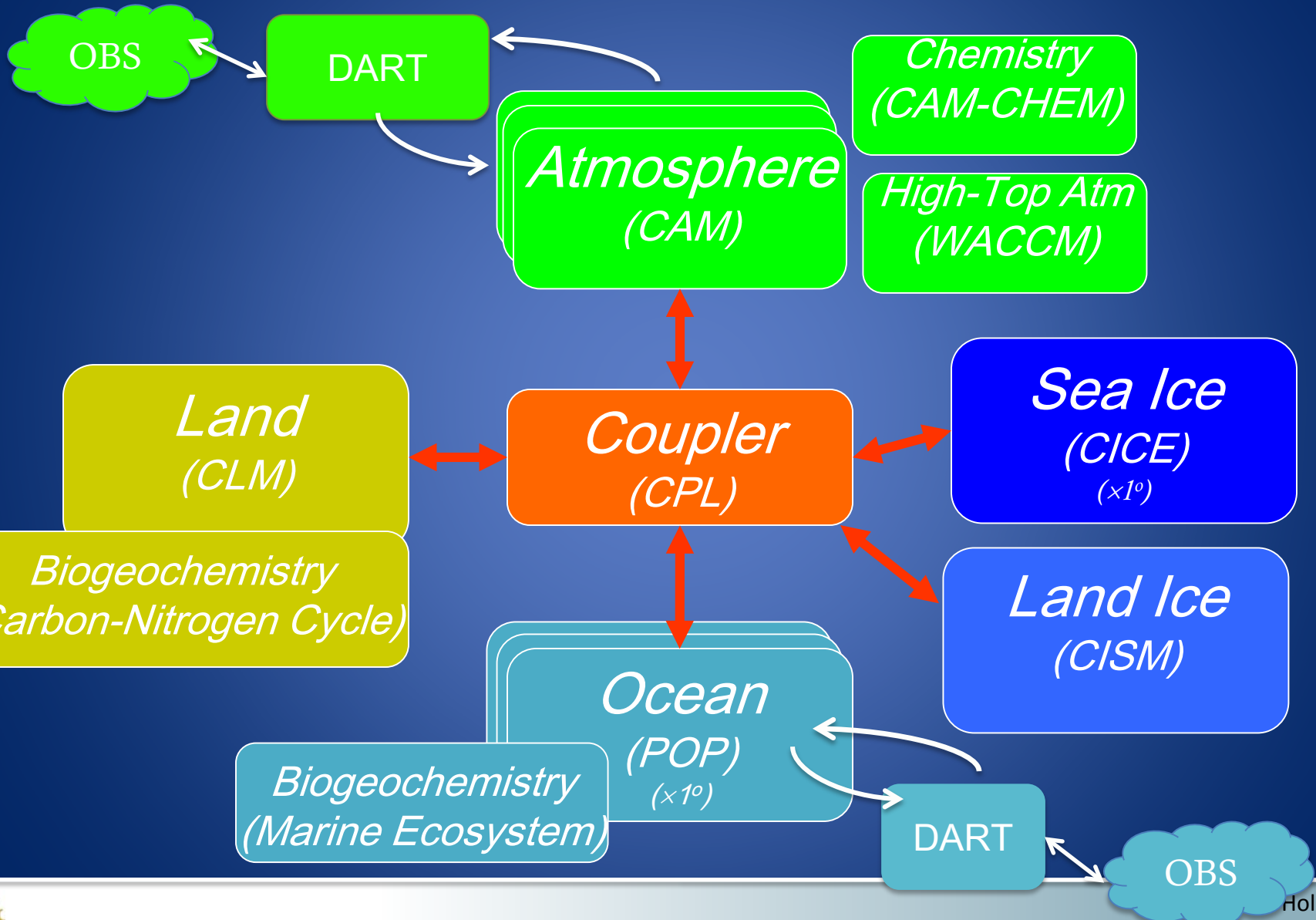
1. Why does the SOM mode no longer run out of the box?
Earlier versions were set up with a test SOM forcing file (pop_forc.1x1d.090130.nc) This forcing file was not intended to be used except in testing. Hence we made the decision to remove a default SOM forcing file from...

2. How do I set the SOM forcing file?
As I posted the forcing file, you will have to in the standard input directory, i.e. `COM_LAG_ROOT/forc/defaults/cesm1.2.1/esmf/...`

cesm1.2.1 esmf e...
mkmapdata.sh
by matthias.demuze...
January 8, 2014 - 1:49am



Community Earth System Model

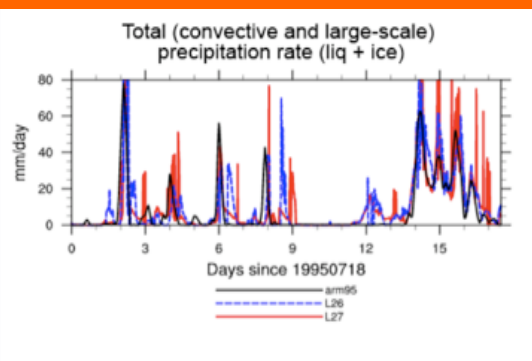


CESM supports a range of climate science goals through a *Single Model Code Base*

Desktop



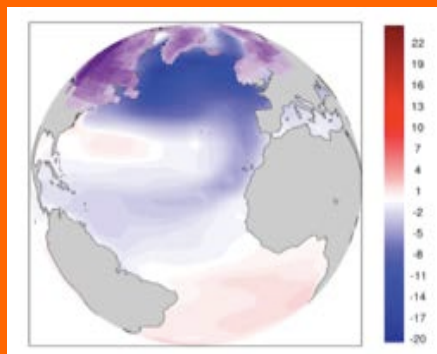
Single column/
Coarse resolution:
Physics development



Small cluster



Lower resolution:
Paleo/Large Ensemble
University research



HPC



Higher resolution:
CMIP
Breakthrough ASD

