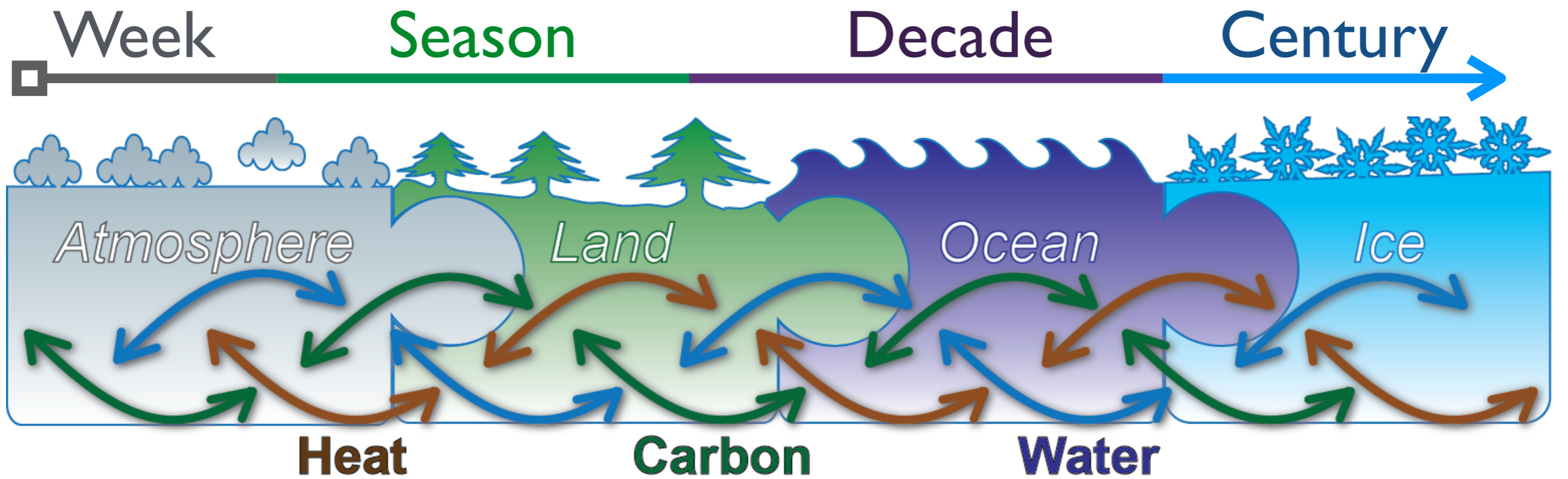
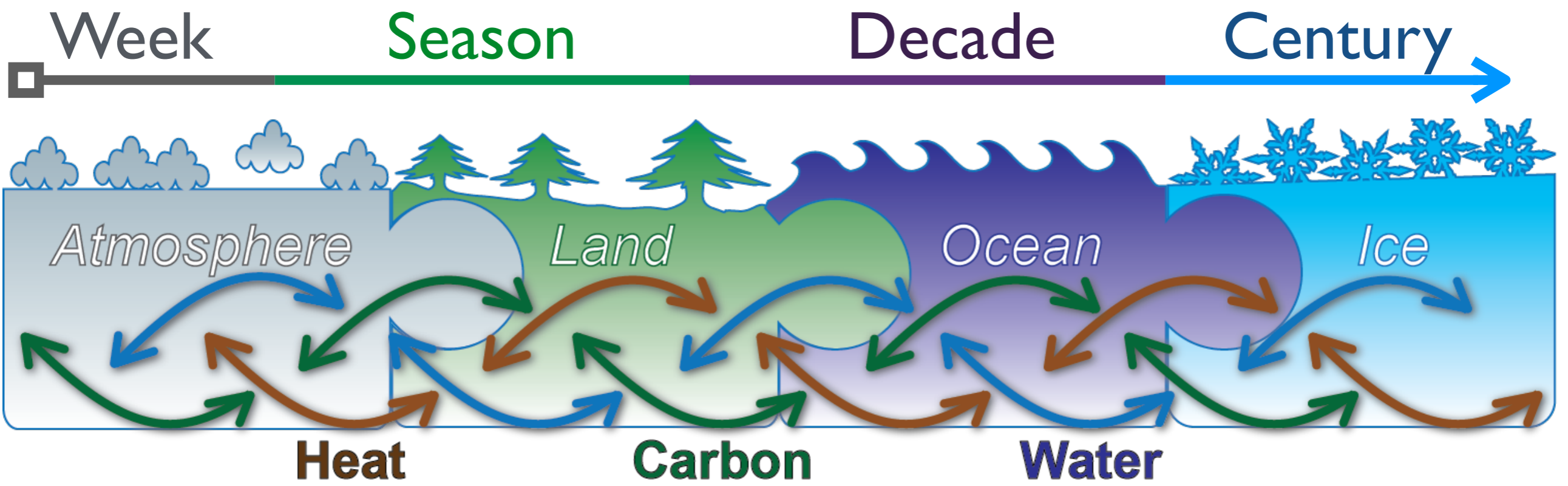
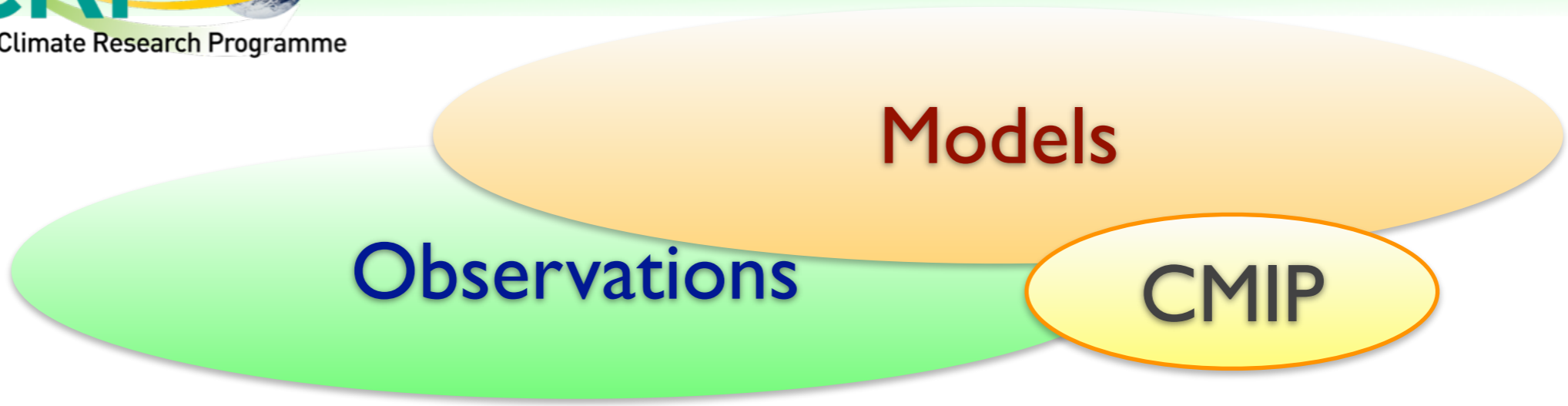


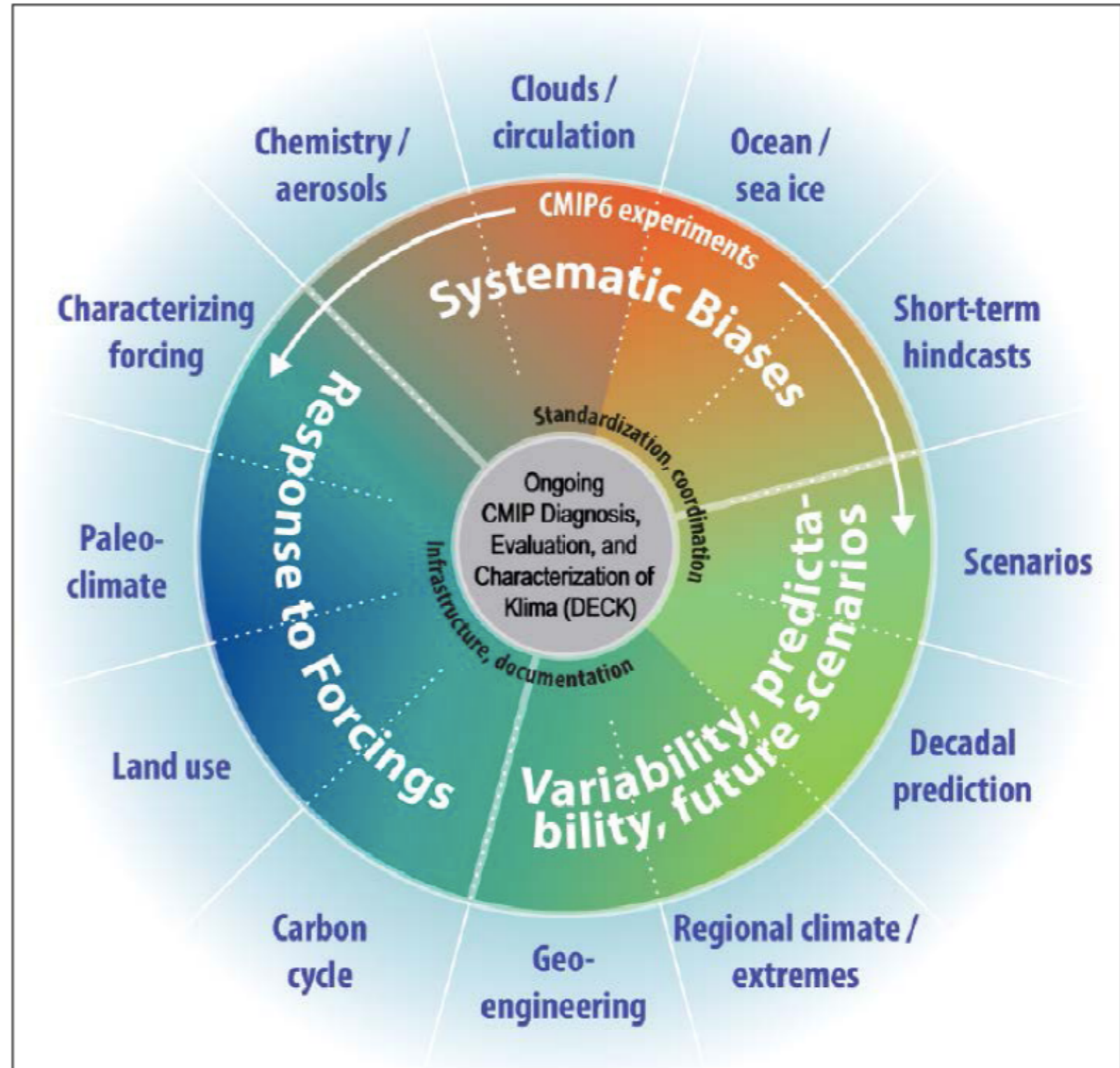
# Analysis & Prediction

*Confronting  
urgent climate  
challenges*



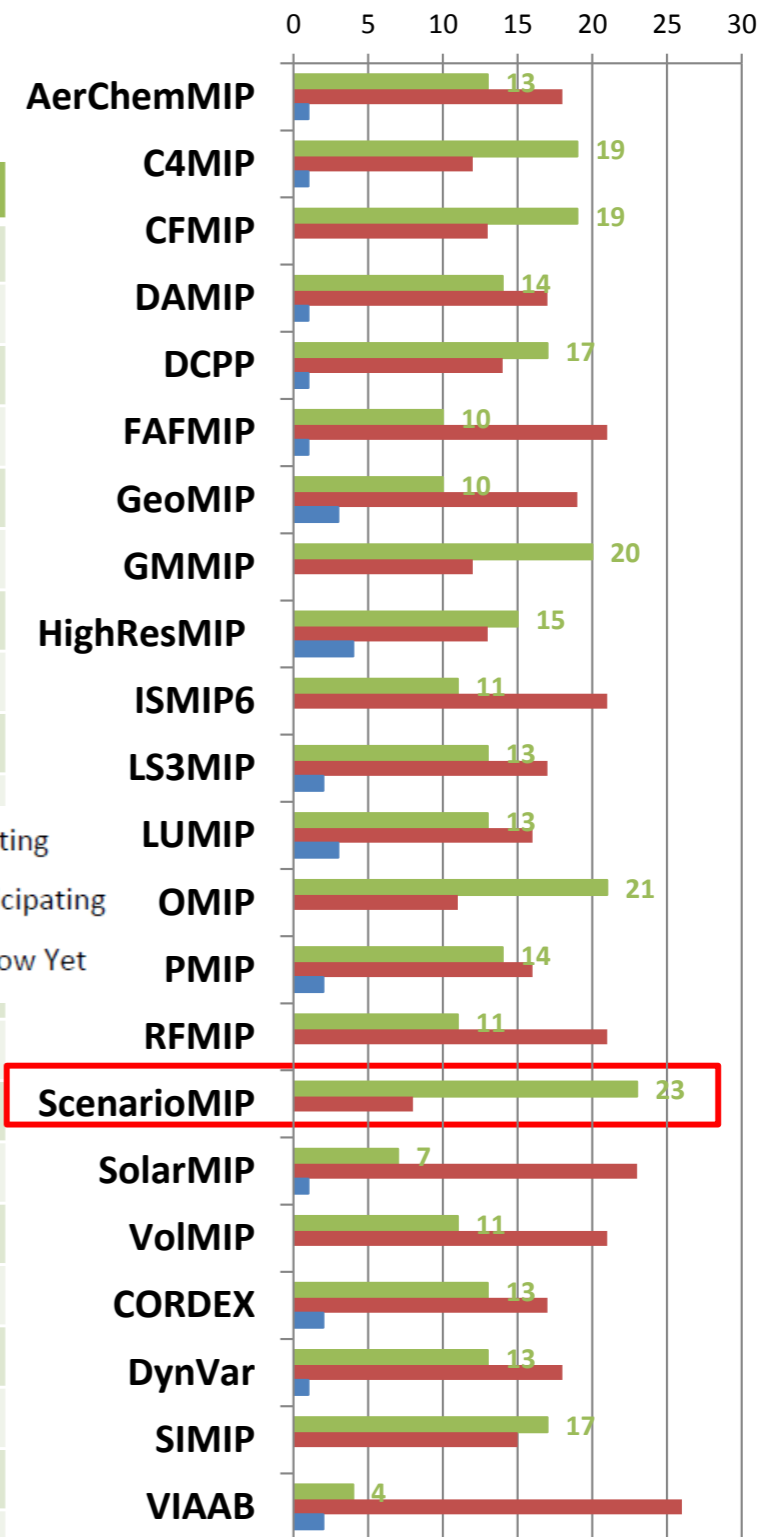
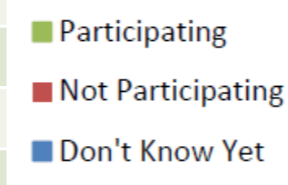


## Coupled Model Intercomparison Project (CMIP6)

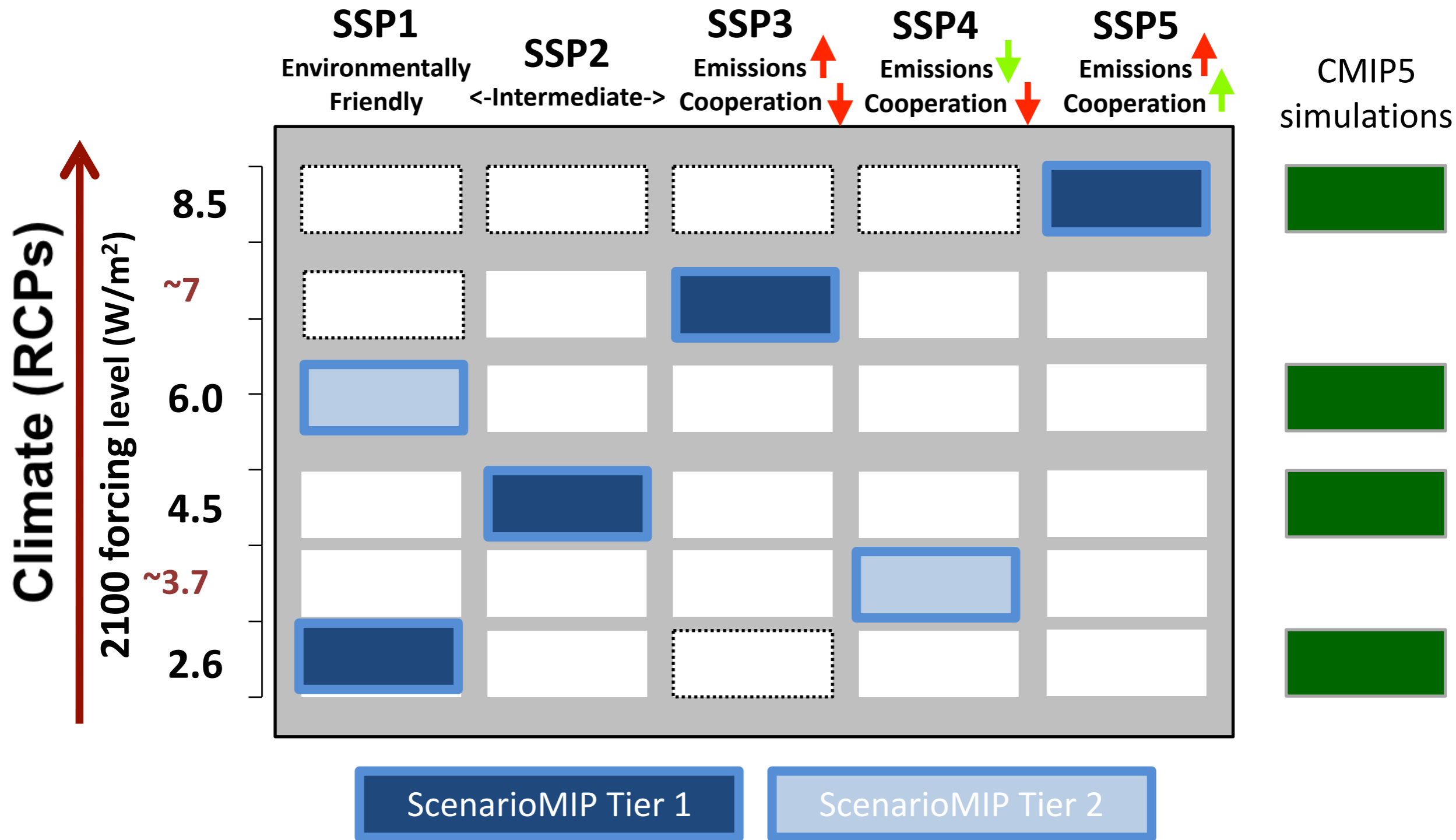


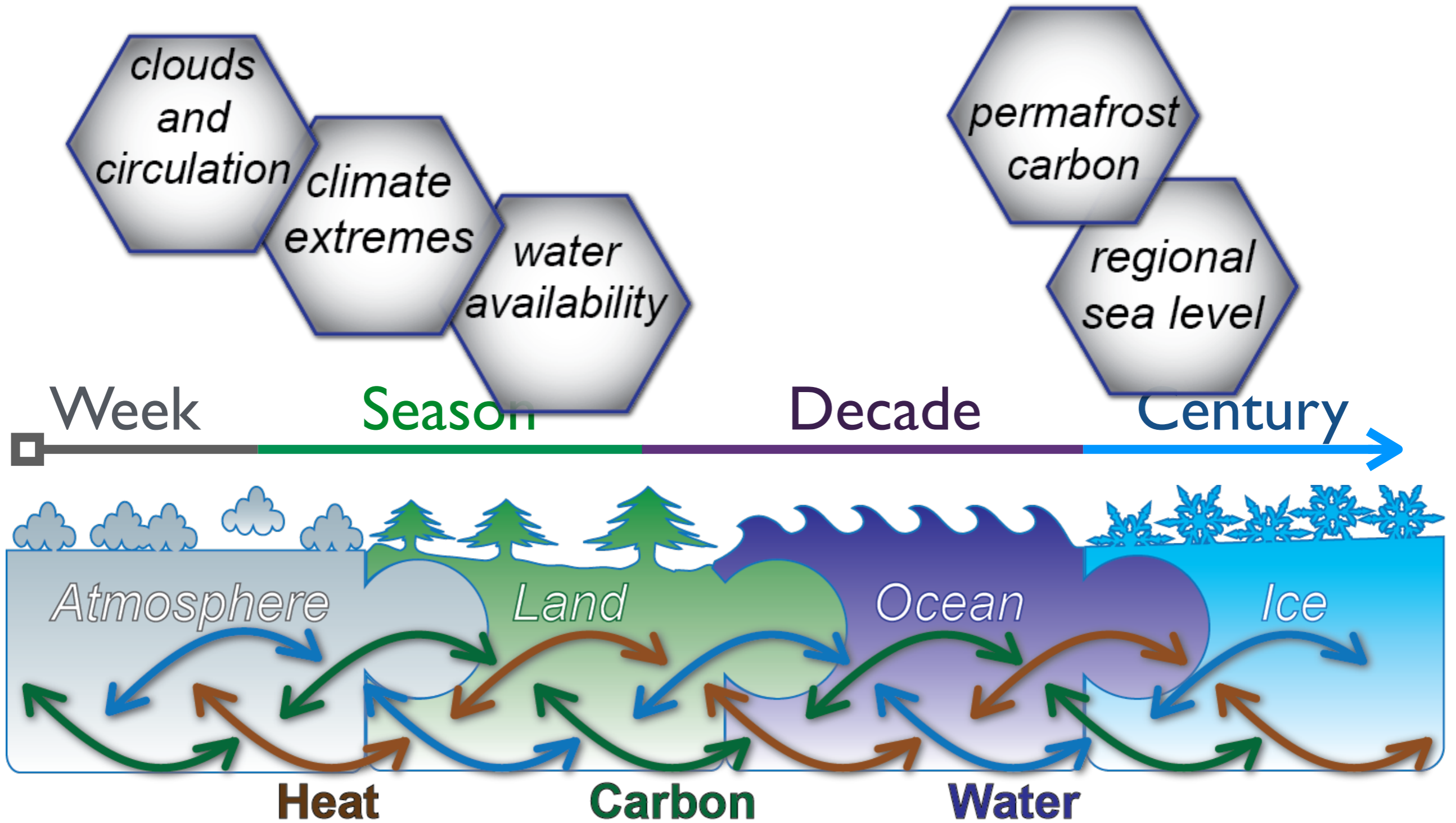
## Proposals from CMIP6-Endorsed MIPs & Model Groups' Commitments to Participate in each MIP

	Long Name of MIP (Short Name of MIP)
1	<b>Aerosols and Chemistry Model Intercomparison Project (AerChemMIP)</b>
2	<b>Coupled Climate Carbon Cycle Model Intercomparison Project (C4MIP)</b>
3	Cloud Feedback Model Intercomparison Project (CFMIP)
4	<b>Detection and Attribution Model Intercomparison Project (DAMIP)</b>
5	<b>Decadal Climate Prediction Project (DCPP)</b>
6	Flux-Anomaly-Forced Model Intercomparison Project (FAFMIP)
7	<b>Geoengineering Model Intercomparison Project (GeoMIP)</b>
8	Global Monsoons Model Intercomparison Project (GMMIP)
9	<b>High Resolution Model Intercomparison Project (HighResMIP)</b>
10	<b>Ice Sheet Model Intercomparison Project for CMIP6 (ISMIP6)</b>
11	<b>Land Surface, Snow and Soil Moisture MIP (LS3MIP)</b>
12	<b>Land-Use Model Intercomparison Project (LUMIP)</b>
13	Ocean Model Intercomparison Project (OMIP)
14	Palaeoclimate Modelling Intercomparison Project (PMIP)
15	<b>Radiative Forcing Model Intercomparison Project (RFMIP)</b>
16	<b>Scenario Model Intercomparison Project (ScenarioMIP)</b>
17	Solar Model Intercomparison Project (SolarMIP)
18	Volcanic Forcings Model Intercomparison Project (VolMIP)
19	<i>Coordinated Regional Climate Downscaling Experiment (CORDEX)</i>
20	<i>Dynamics and Variability of the Stratosphere-Troposphere System (DynVar)</i>
21	<i>Sea-Ice Model Intercomparison Project (SIMIP)</i>
22	<i>Vulnerability, Impacts, and Adaptation Advisory Board for CMIP6 (VIA AB)</i>



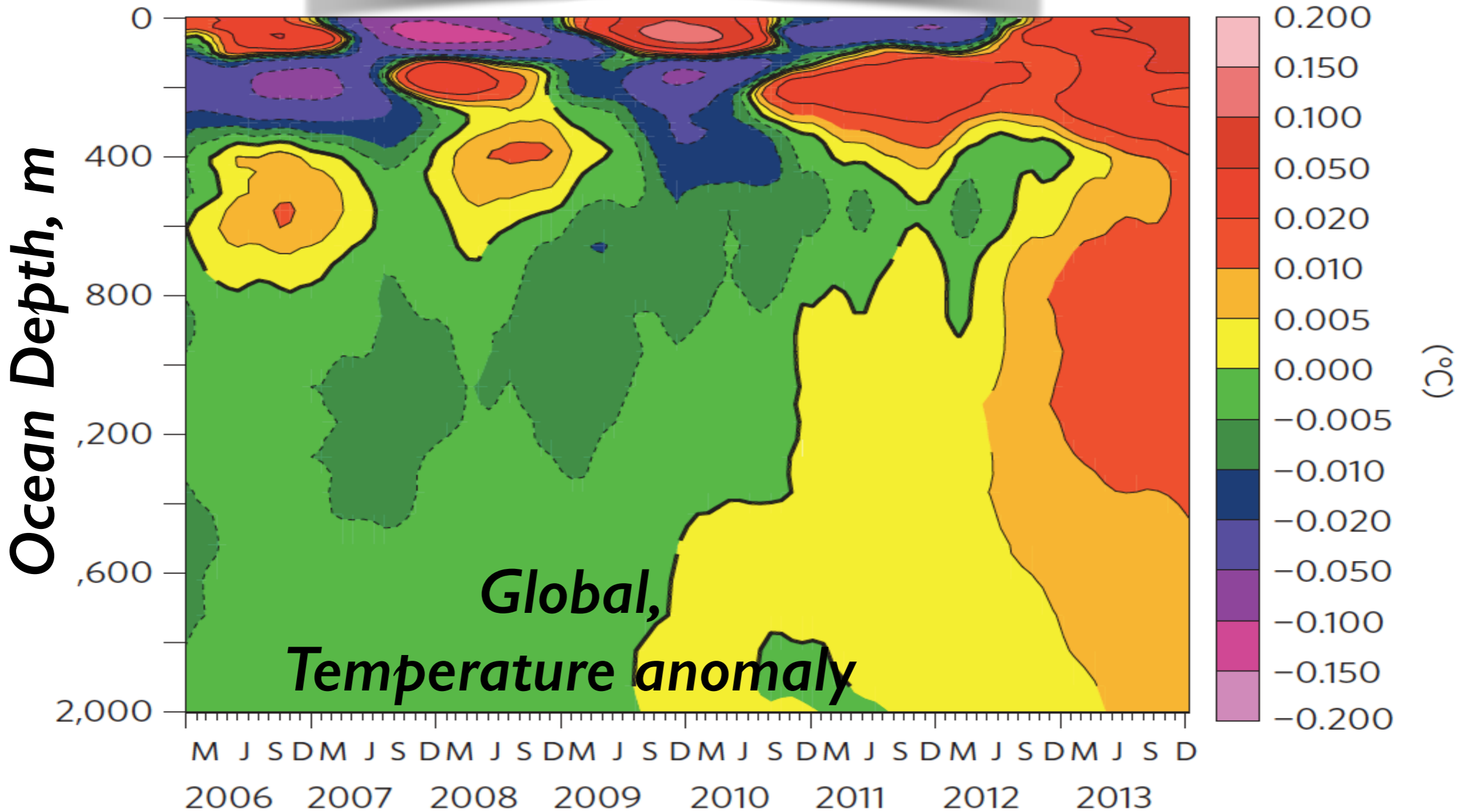
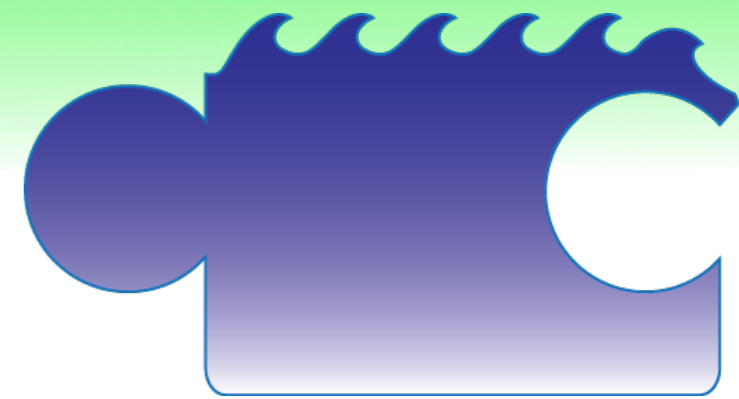
## Shared Socioeconomic Pathways







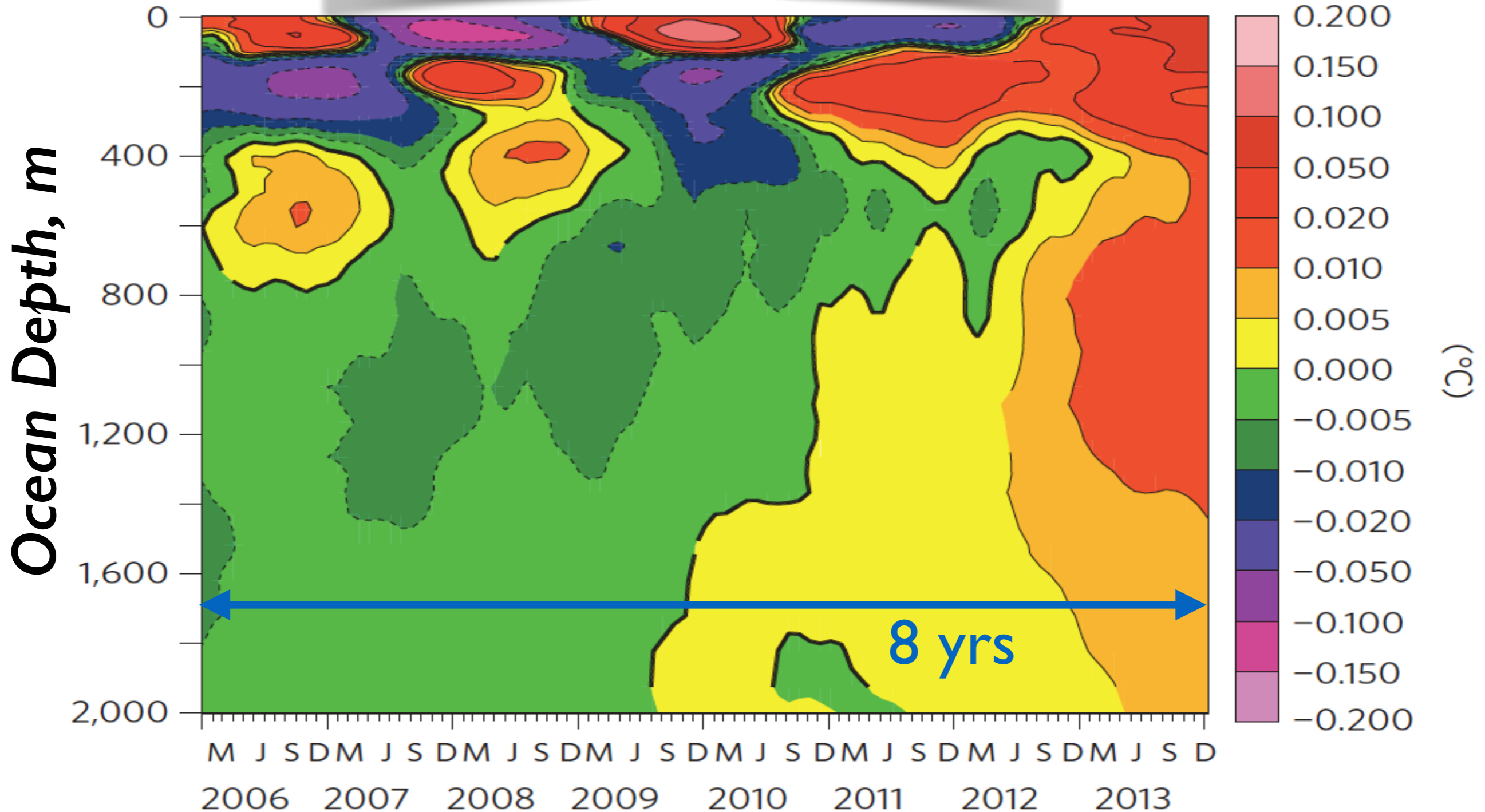
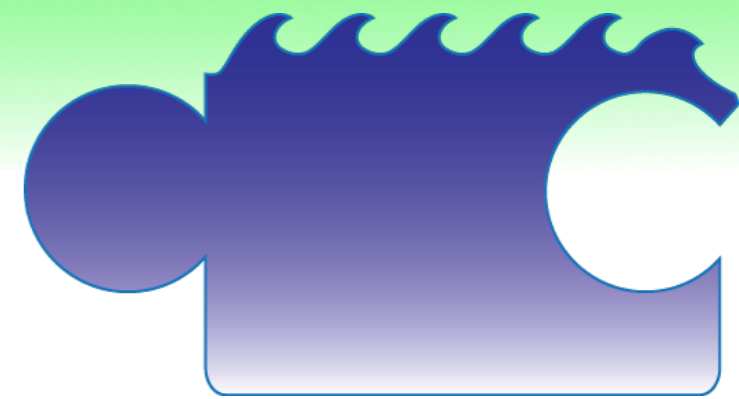
Roemmich et al. 2015  
doi:10.1038/NCLIMATE2513





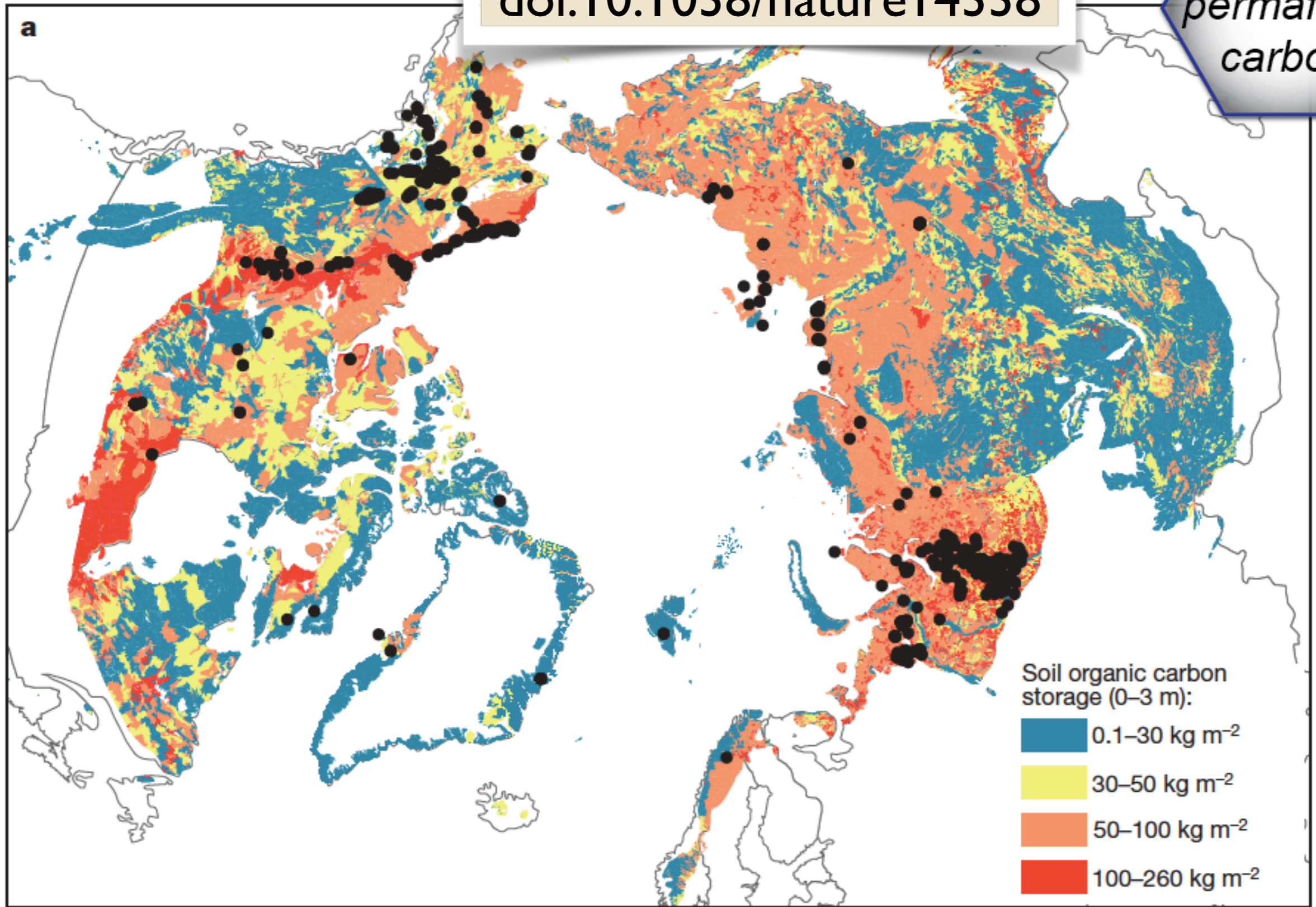


Roemmich et al. 2015  
doi:10.1038/NCLIMATE2513



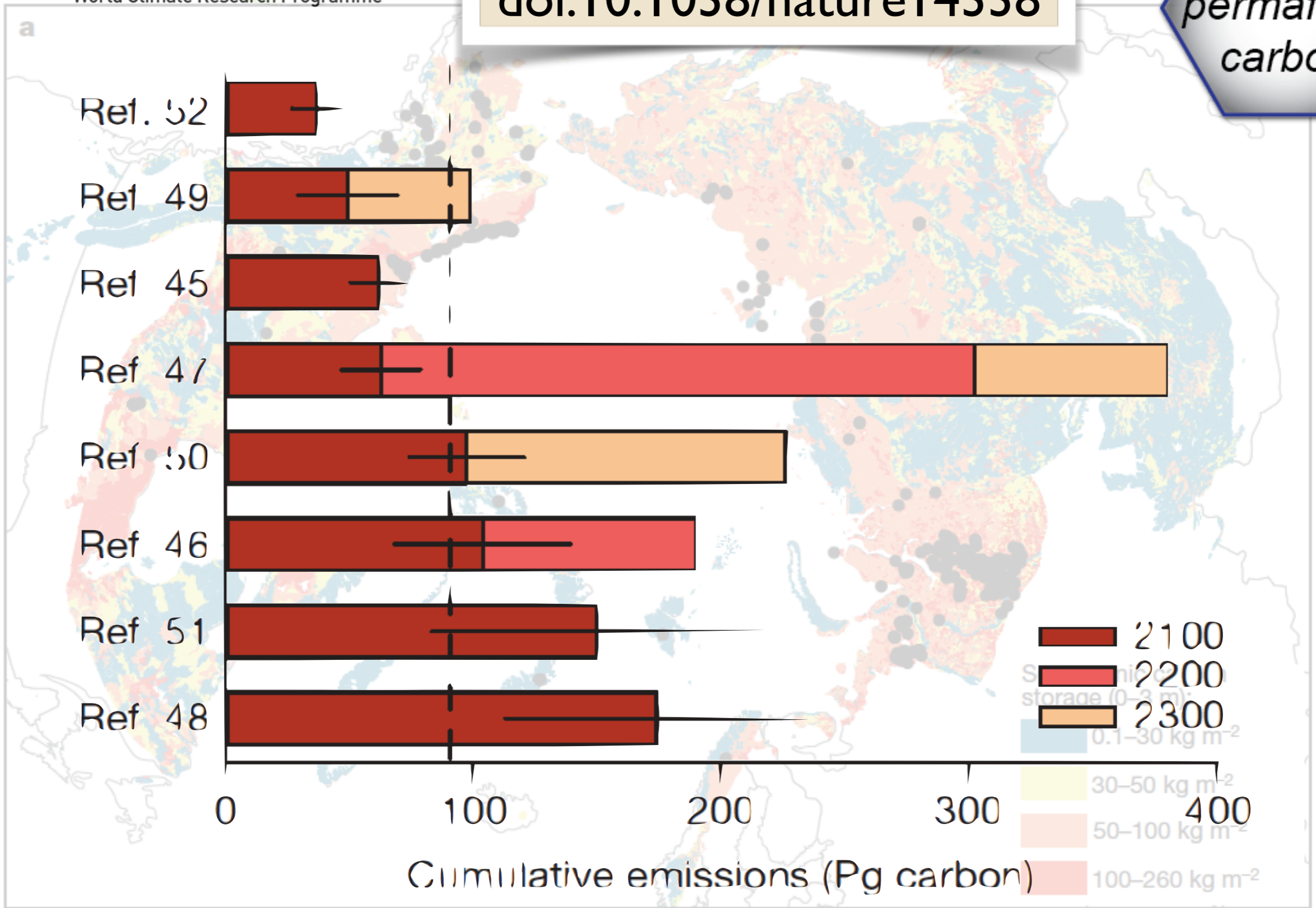
Schuur et al. 2015  
doi:10.1038/nature14338

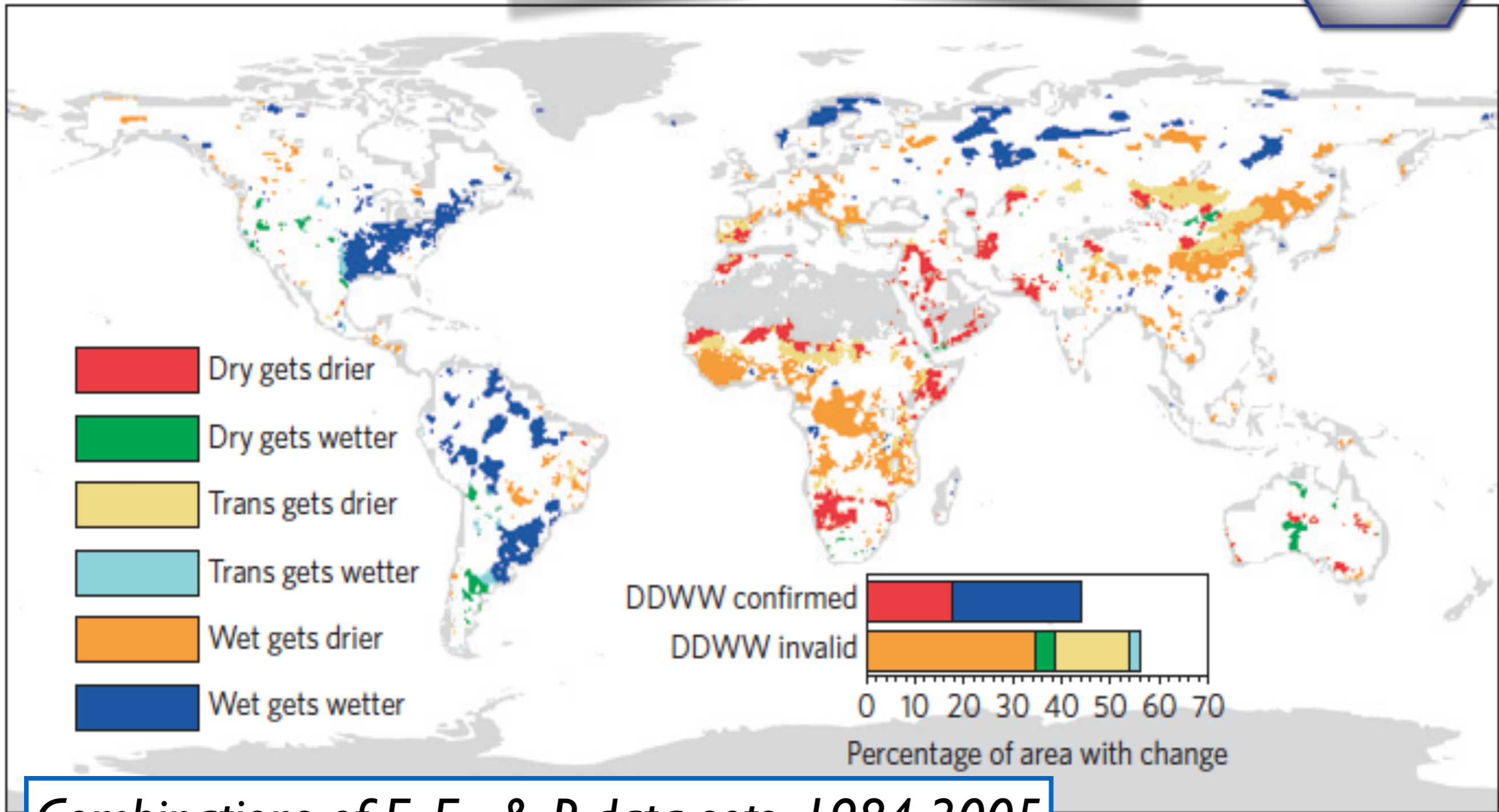
permafrost  
carbon



Schuur et al. 2015  
doi:10.1038/nature14338

permafrost  
carbon

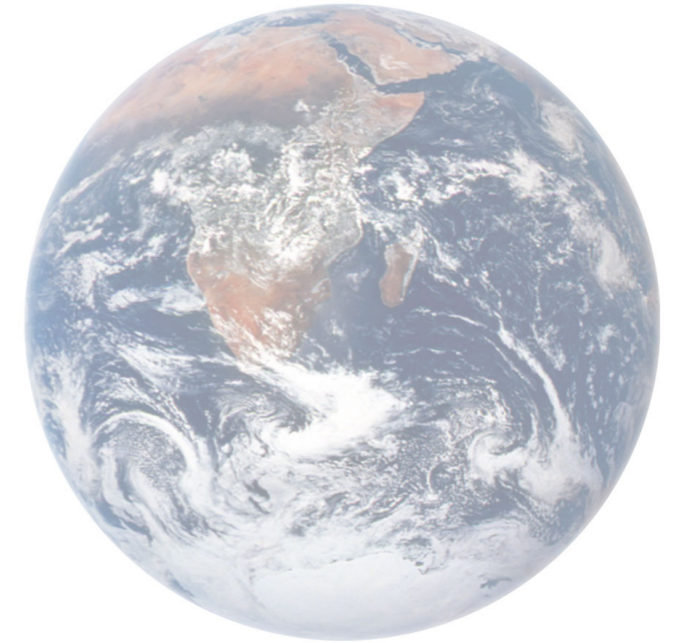




**Combinations of  $E$ ,  $E_p$ , &  $P$  data sets, 1984-2005**

# Analysis & Prediction

*Climate challenges the human spirit*



*Effort on (very) low emissions scenarios?*

*Restrict access to protect vital data?*

*Travel widely but reduce carbon impact?*