ScenarioMIP and CMIP6

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Scenario MIP Co-chairs:
Brian O'Neill, Claudia Tebaldi, Detlef van Vuuren

Members: Veronika Eyring, Pierre Friedlingstein, George Hurtt, Reto Knutti, Jean-Francois Lamarque, Jason Lowe, Jerry Meehl, Richard Moss, Ben Sanderson

Contributions/feedback from additional IAM researchers:
Kate Calvin, Shinichiro Fujimori, Elmar Kriegler, Keywan Riahi

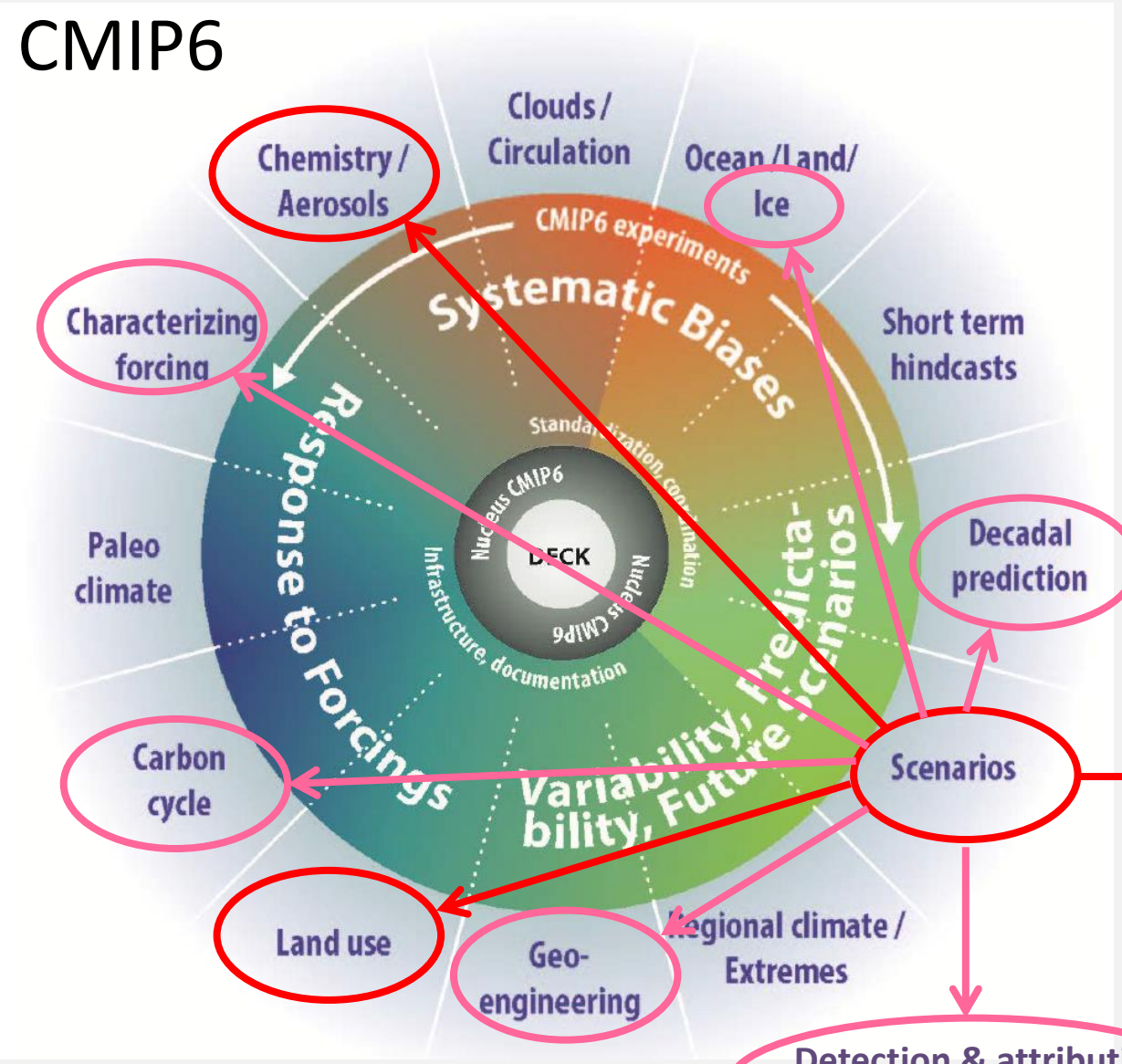
IAV Community: ICONICS, TGICA

LUMIP Co-chairs: George Hurtt, Dave Lawrence

AerChemMIP Co-Chairs: Jean-Francois Lamarque, William Collins, Michael Schulz

Other MIPs: C4MIP, GeoMIP

CMIP6



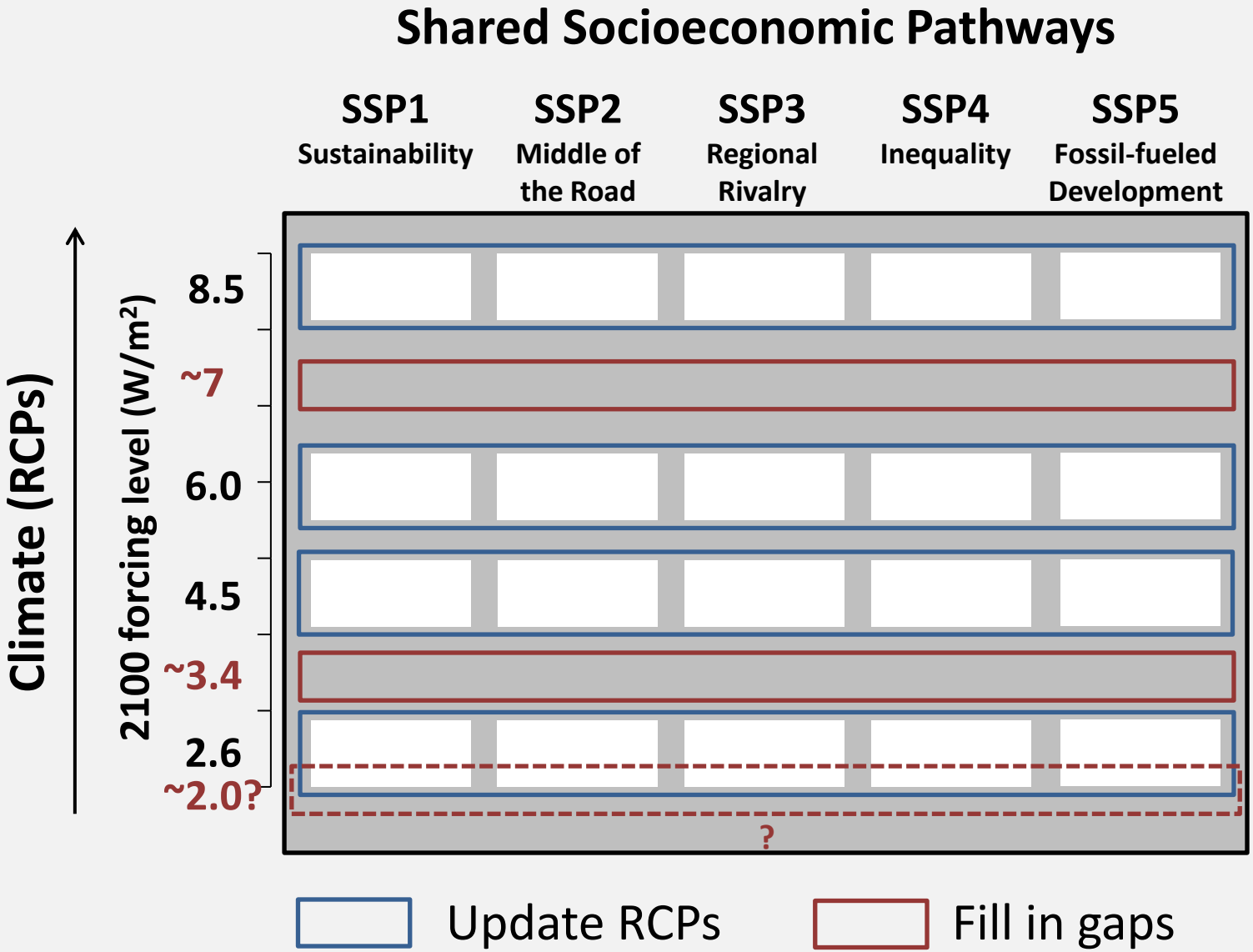
Roles of ScenarioMIP

Integrated <u>research:</u>
Climate science
IAV
IAM

ScenarioMIP roles: Implications for design

1. Facilitating integrated research across climate science, IAM and IAV communities
   - Span wide forcing range and intermediate levels
   - Continuity with CMIP5
   - Include new forcing pathways of interest
2. Anchoring targeted experiments to answer questions about specific forcings
   - Include scenarios with forcings useful to other MIPs (land use, aerosols, high signal/noise, overshoot, etc.)

ScenarioMIP design: Forcing levels



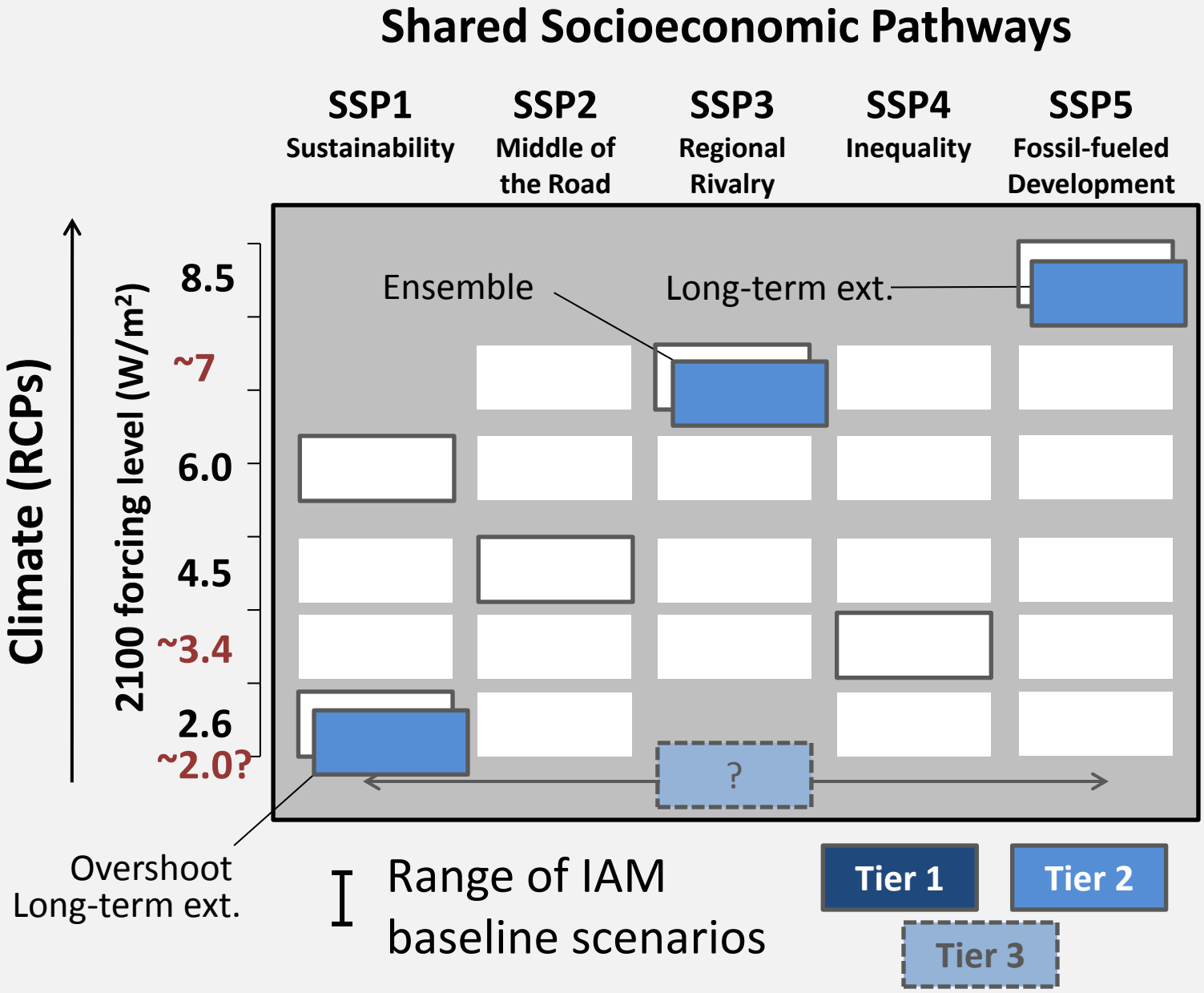
Goals for selecting specific SSP-based scenarios

Facilitate climate research (e.g., strong land use or aerosol signal)

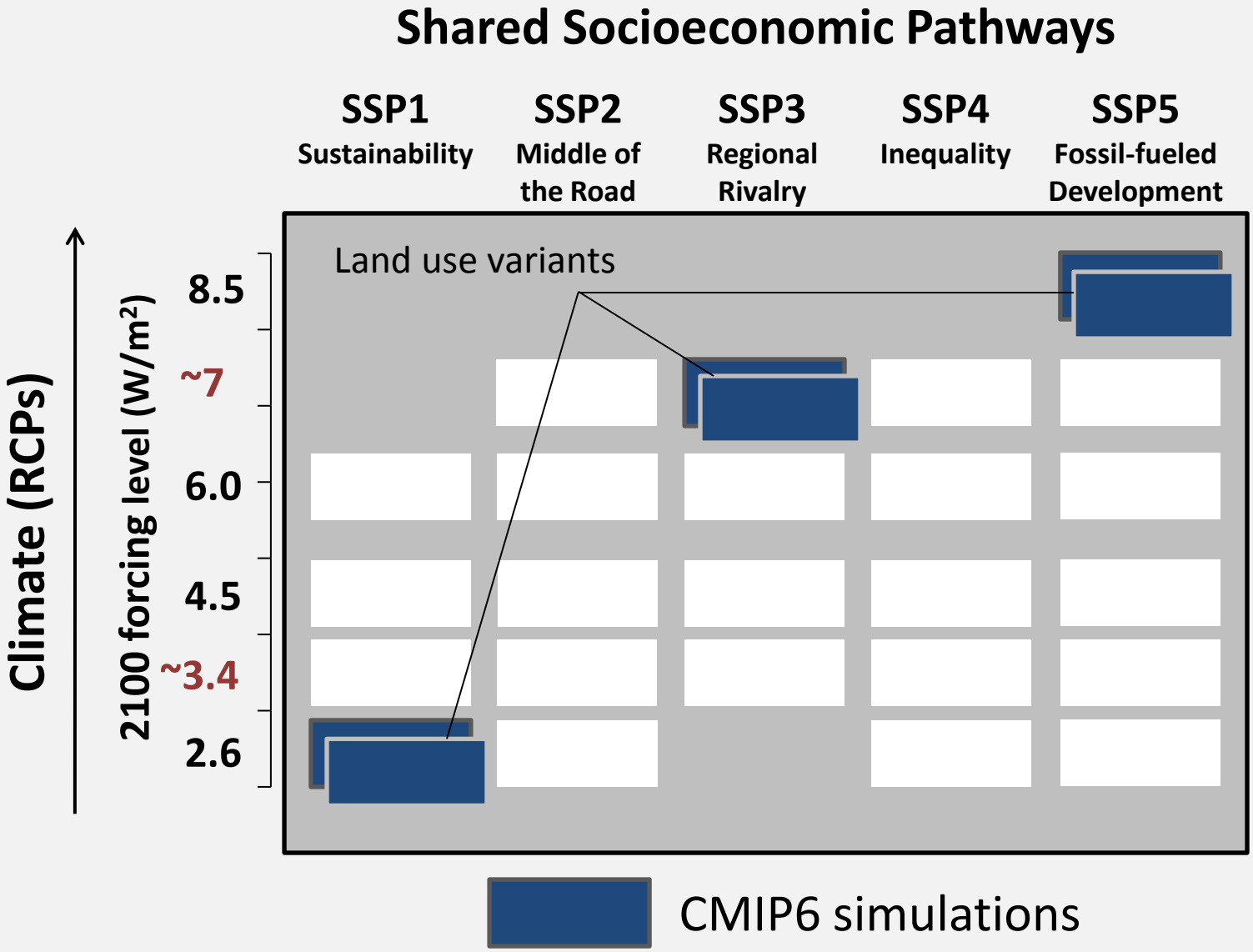
Scenarios that are most relevant to the IAM/IAV community

Minimize differences in climate

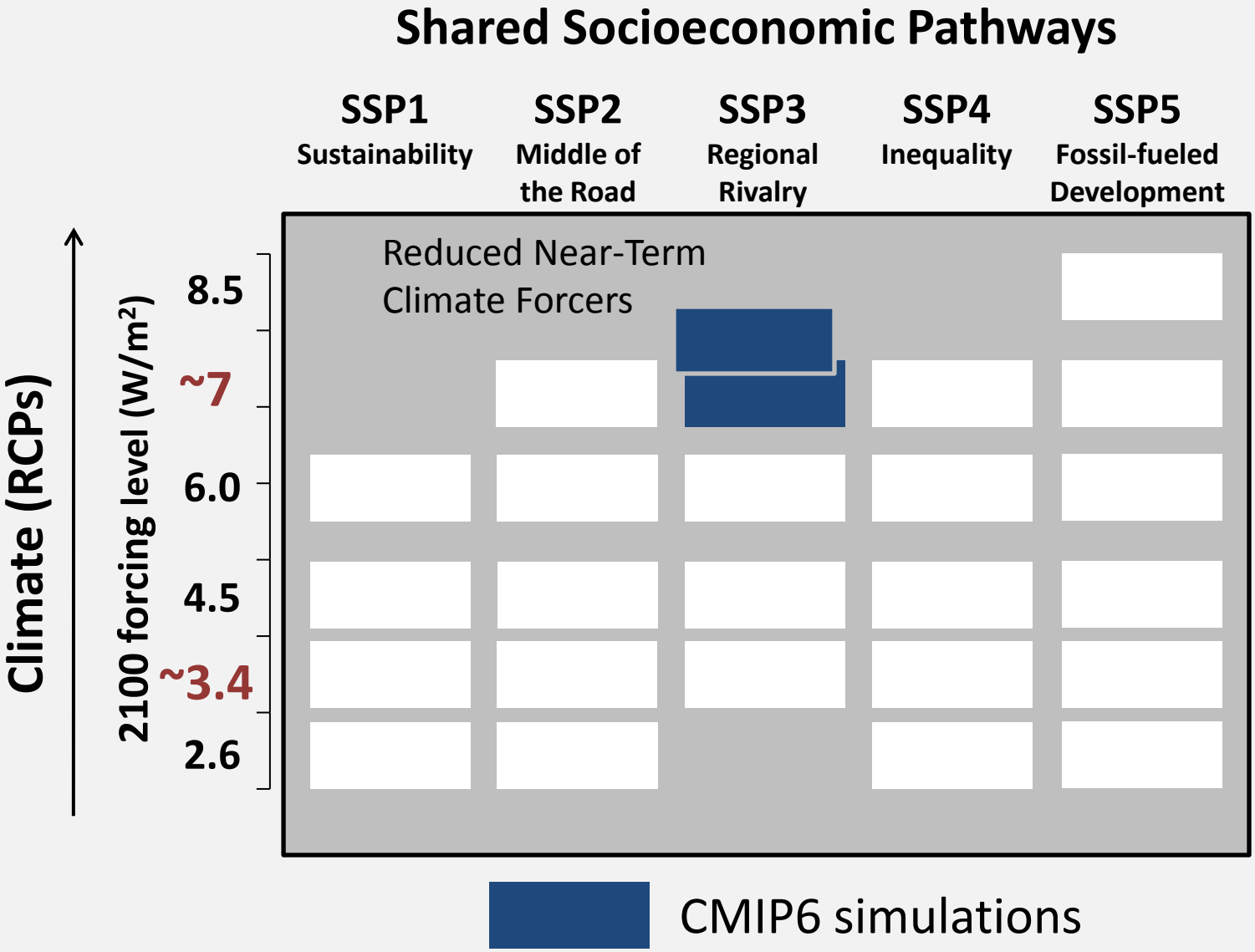
ScenarioMIP design: Specific scenarios



Scenarios in LUMIP



Scenarios in AerChemMIP



Next Steps

Finalize design of overshoot scenario, decision on <2.6 scenario

Submit ScenarioMIP paper to CMIP special issue (by March 2016)

Provide historical data and future projections of emissions and land use to GCMs, including base year harmonization (end 2016)

Coordinate GCM simulations, analyze results (begin 2017)