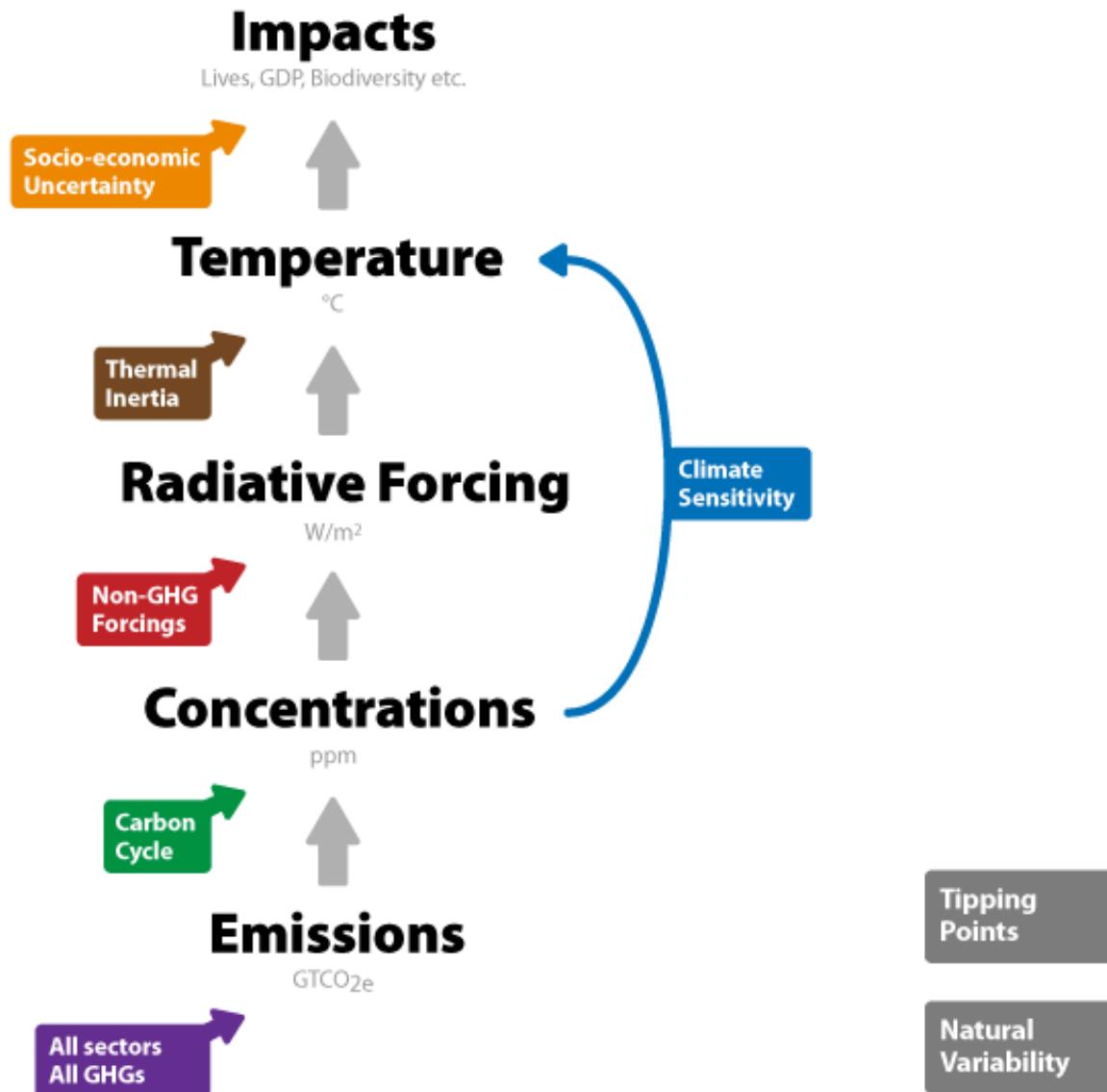


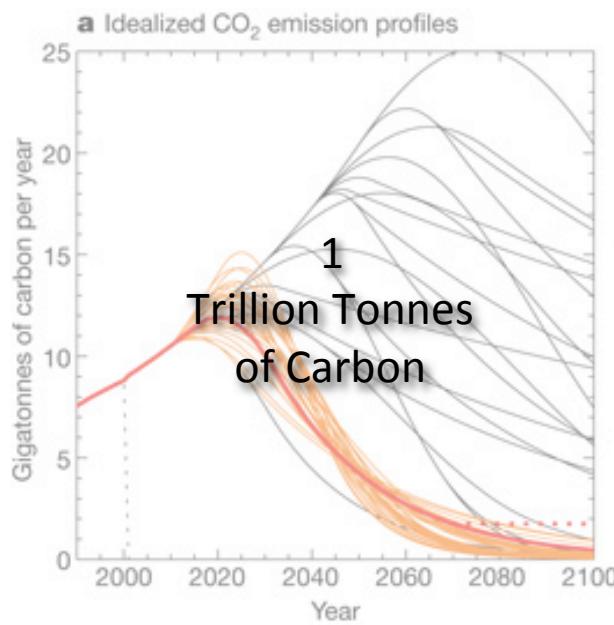
What do scientists do with the models?



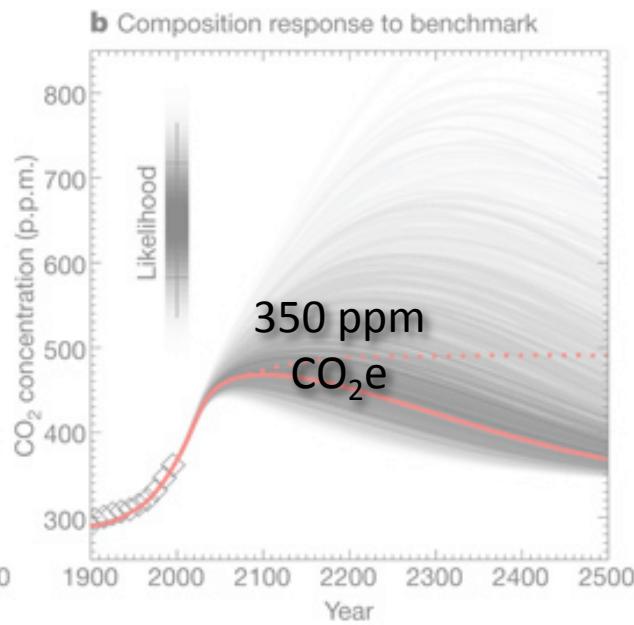
Source: <https://www.flickr.com/photos/climatesafety/4111829103/>

Which Target?

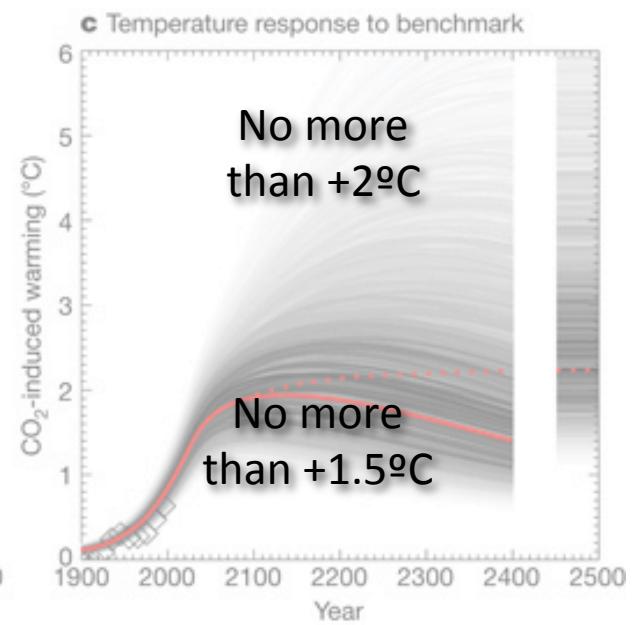
Emissions



Concentrations

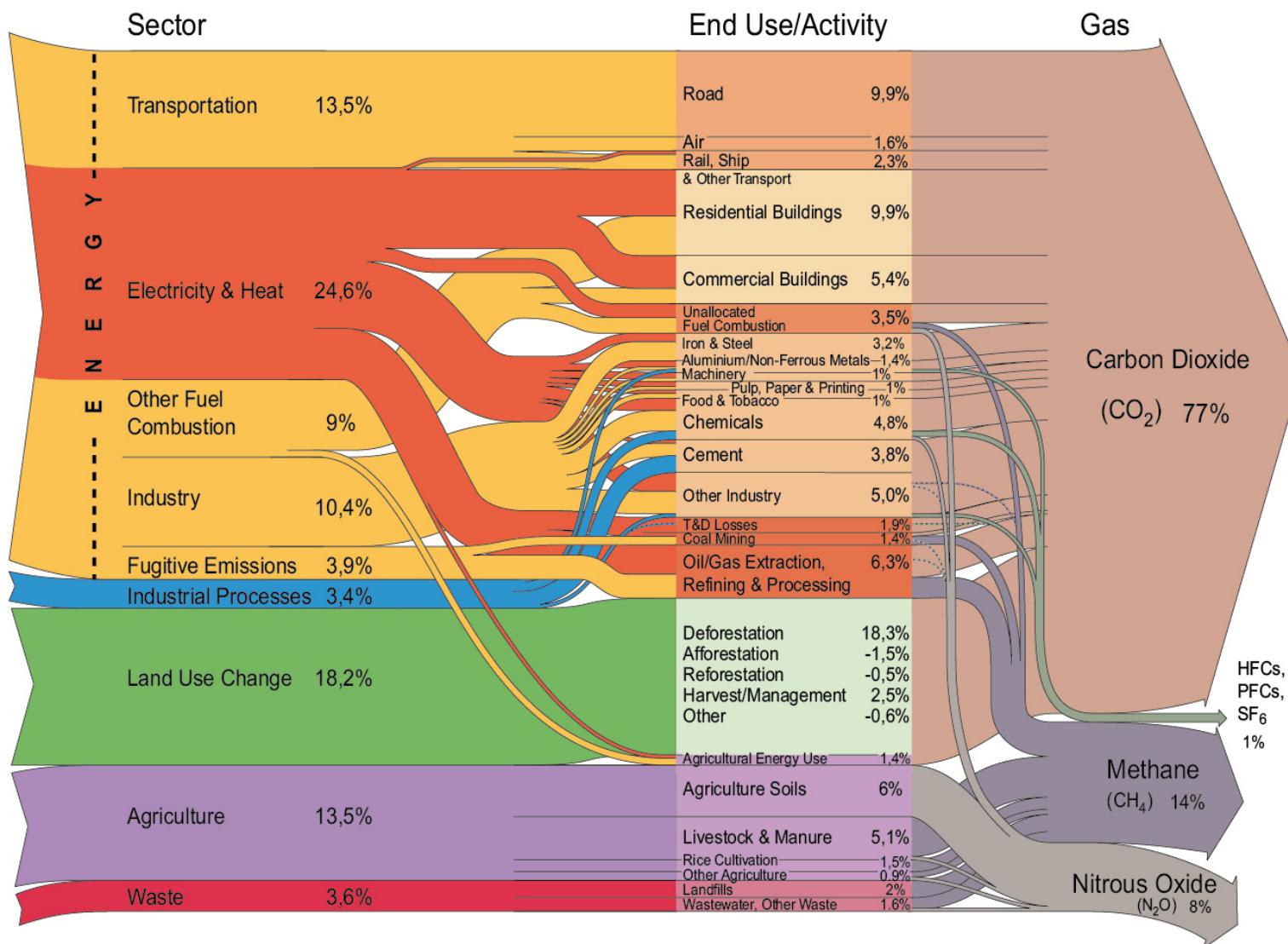


Temperature



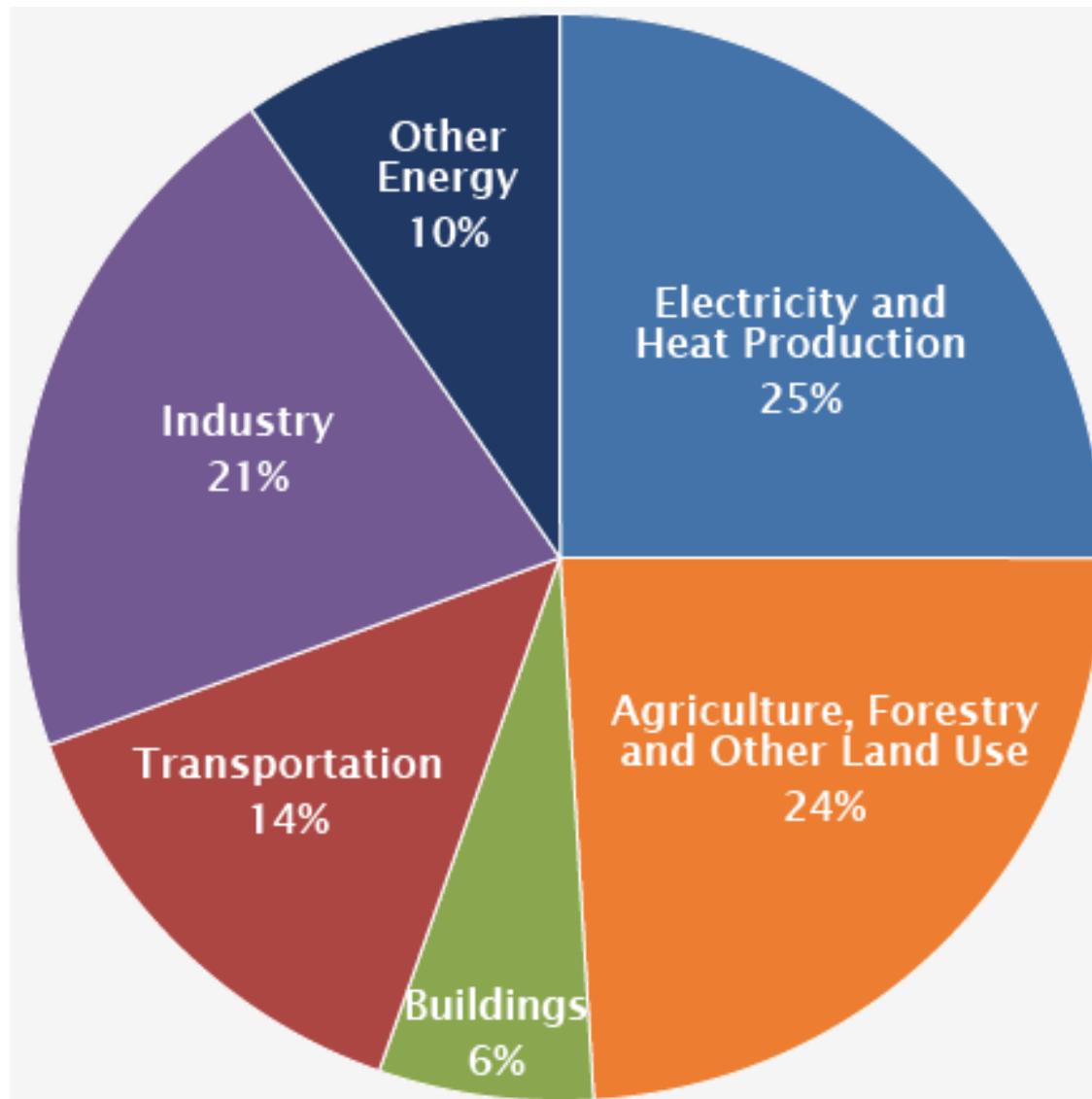
Emissions by Sector

Source: UN Guide to Climate Neutrality



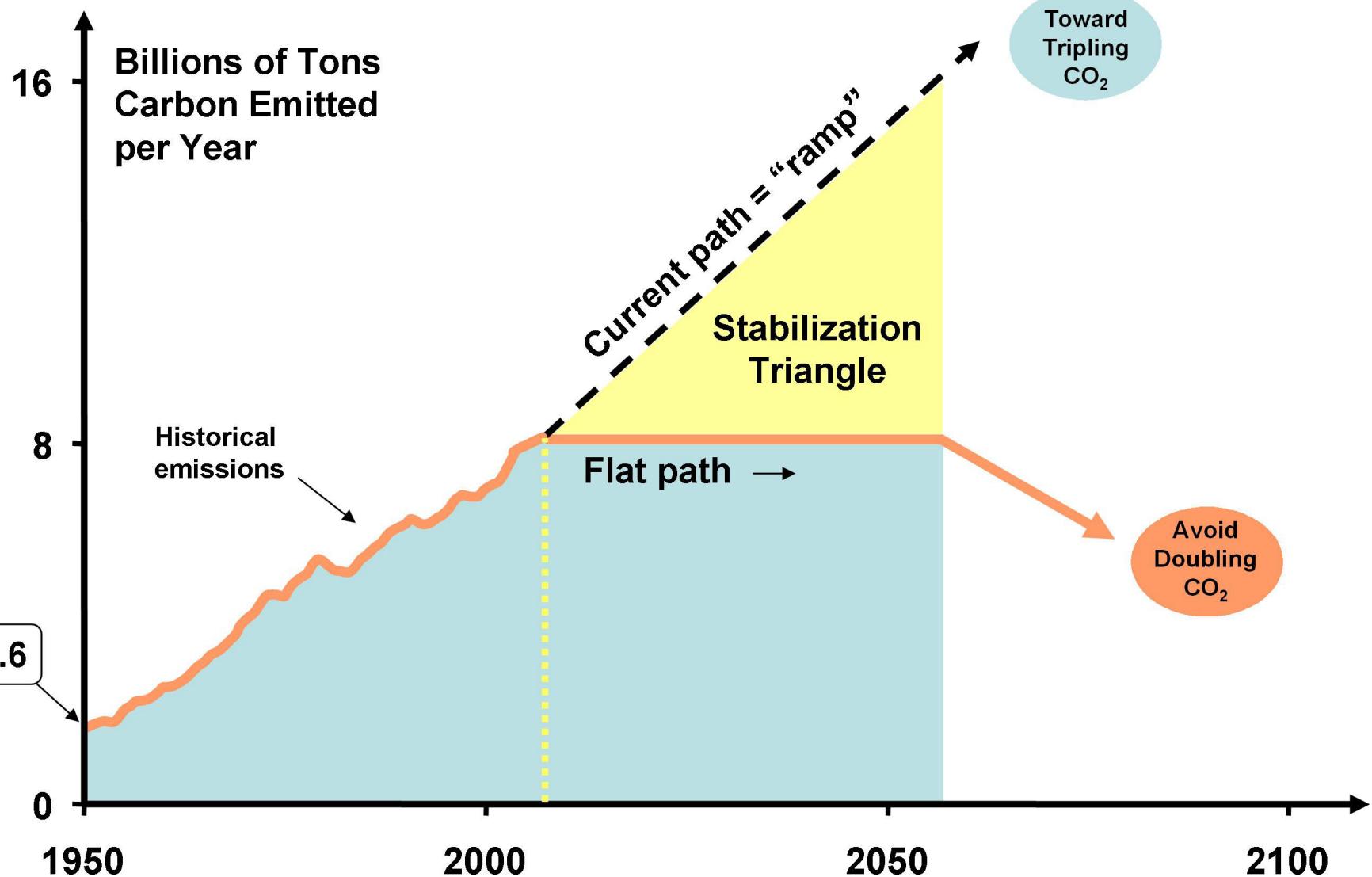
All data is for 2000. All calculations are based on CO₂ equivalents, using 100-year global warming potentials from the IPCC (1996), based on a total global estimate of 41 755 MtCO₂ equivalent. Land use change includes both emissions and absorptions. Dotted lines represent flows of less than 0.1% percent of total GHG emissions.

Where do GHG emissions come from?

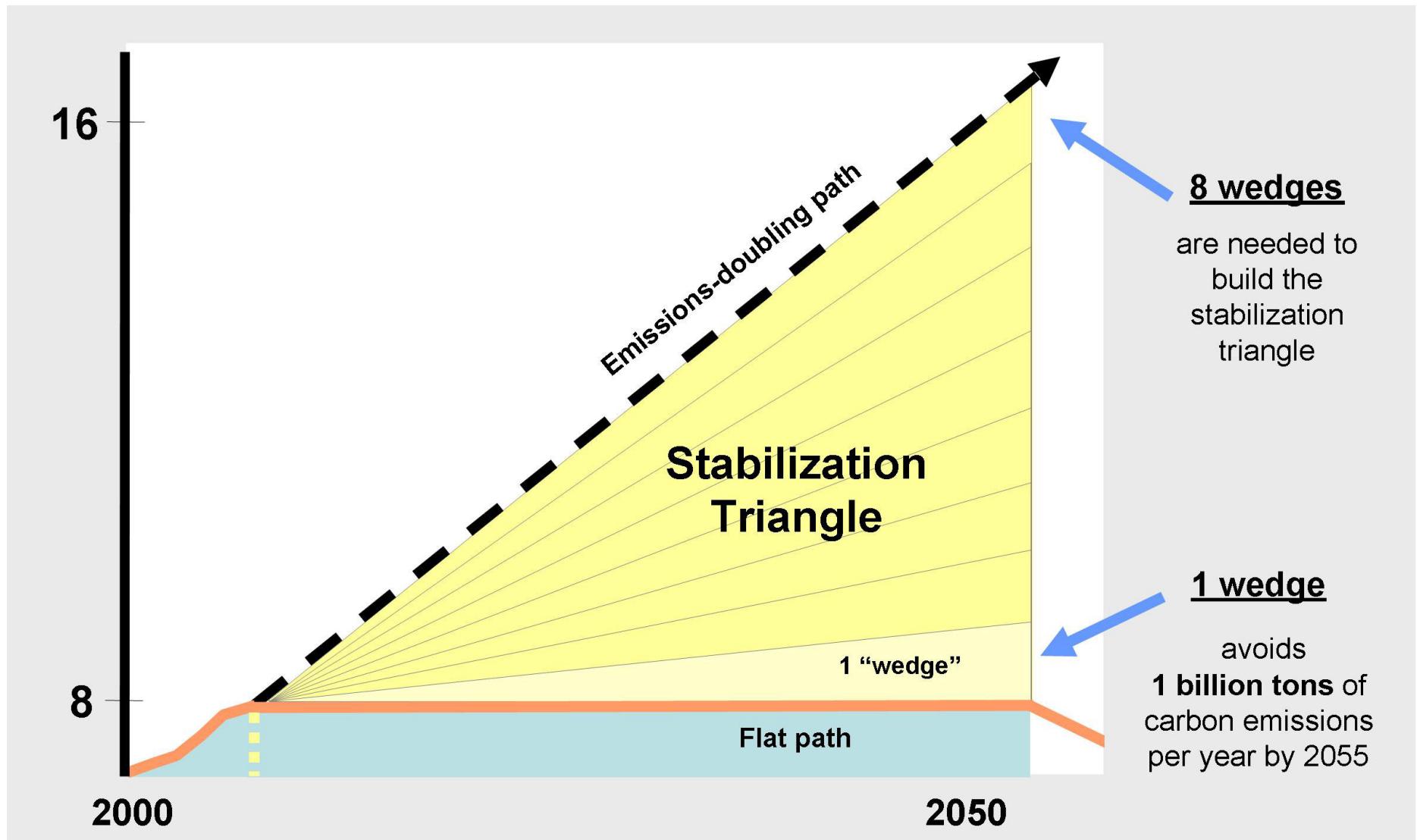


Source: <http://www3.epa.gov/climatechange/ghgemissions/global.html>

Stabilization Wedges



Source: <http://cmi.princeton.edu/wedges/intro.php>



Source: <http://cmi.princeton.edu/wedges/intro.php>

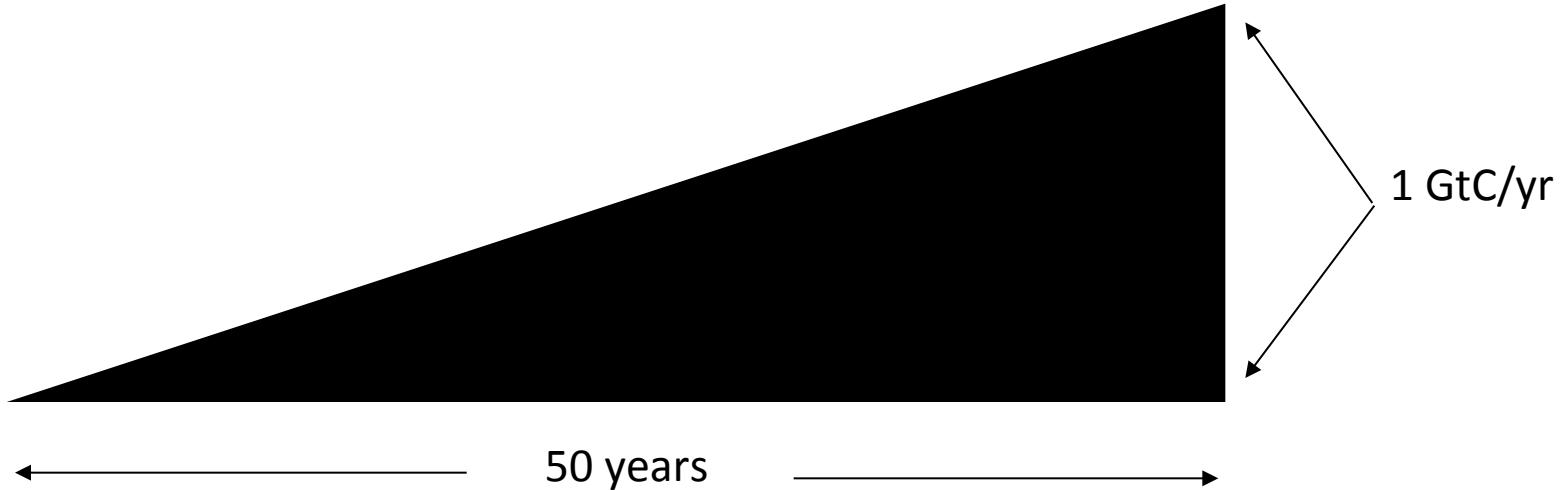
Each Wedge

...is a strategy to reduce carbon emissions

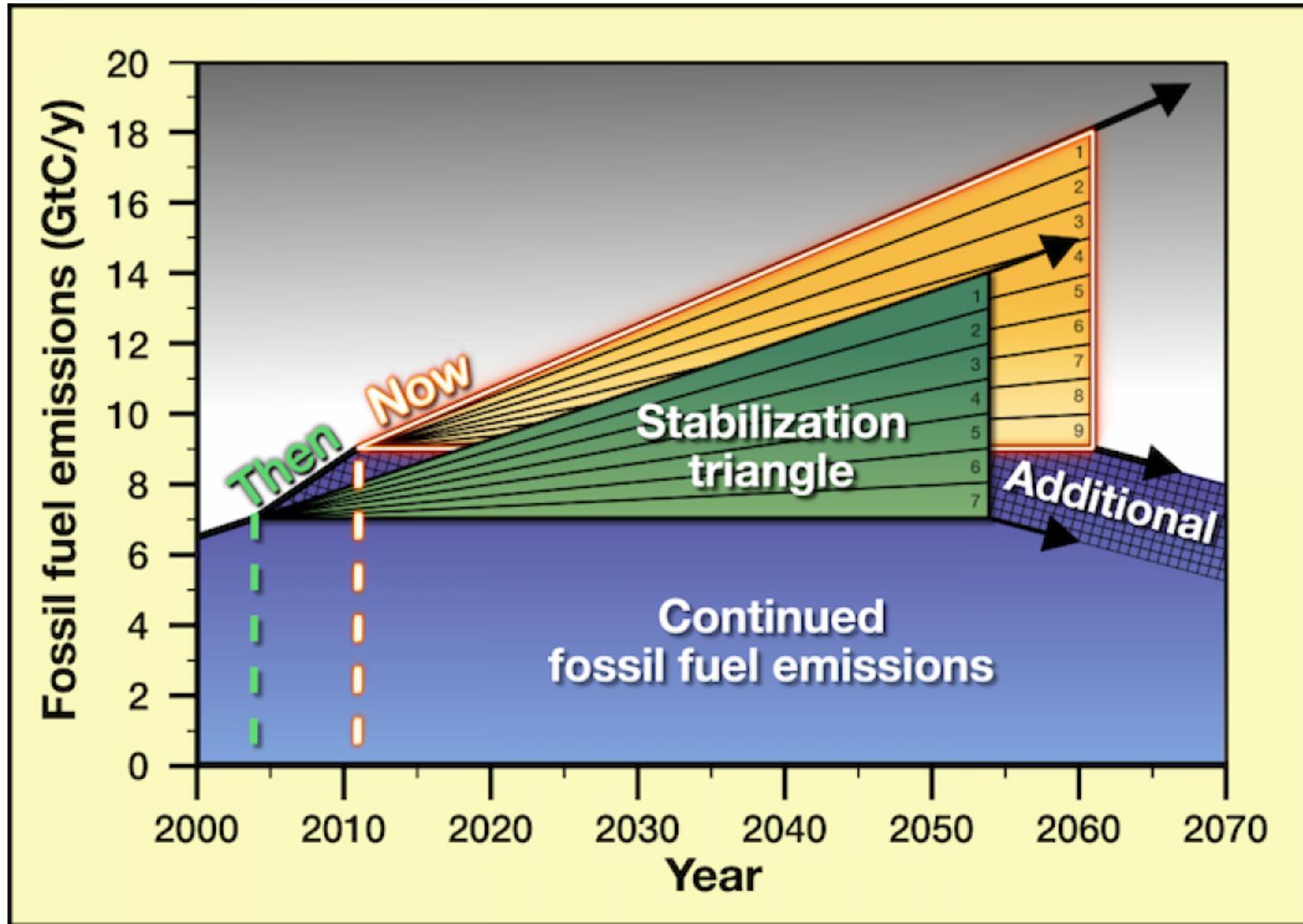
It starts small

Grows in 50 years to 1.0 GtC/yr.

Each wedge must have already been commercialized at scale somewhere.

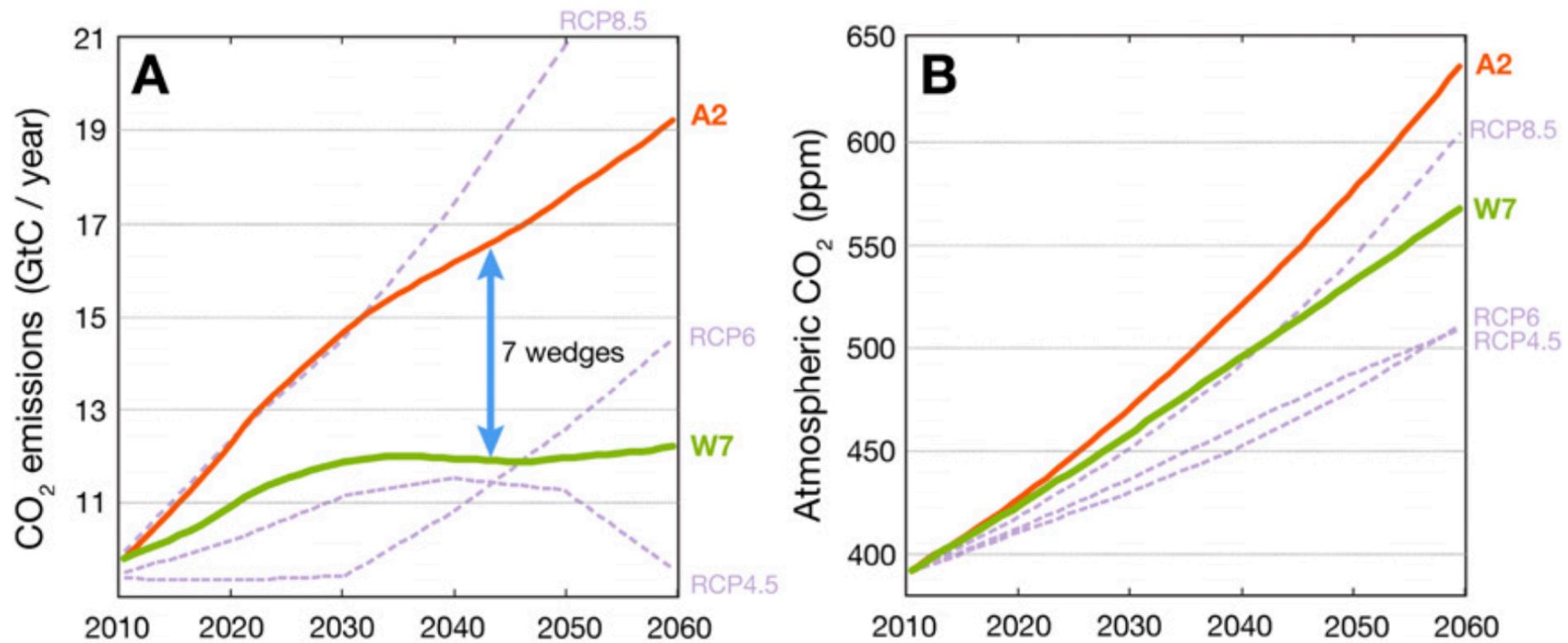


Delay makes the problem harder:



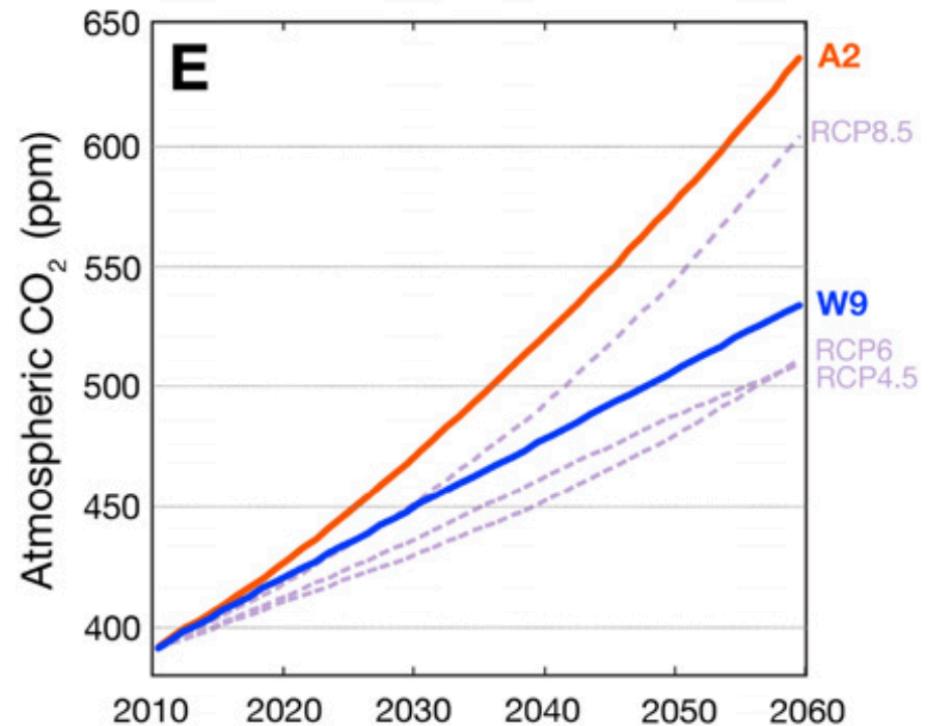
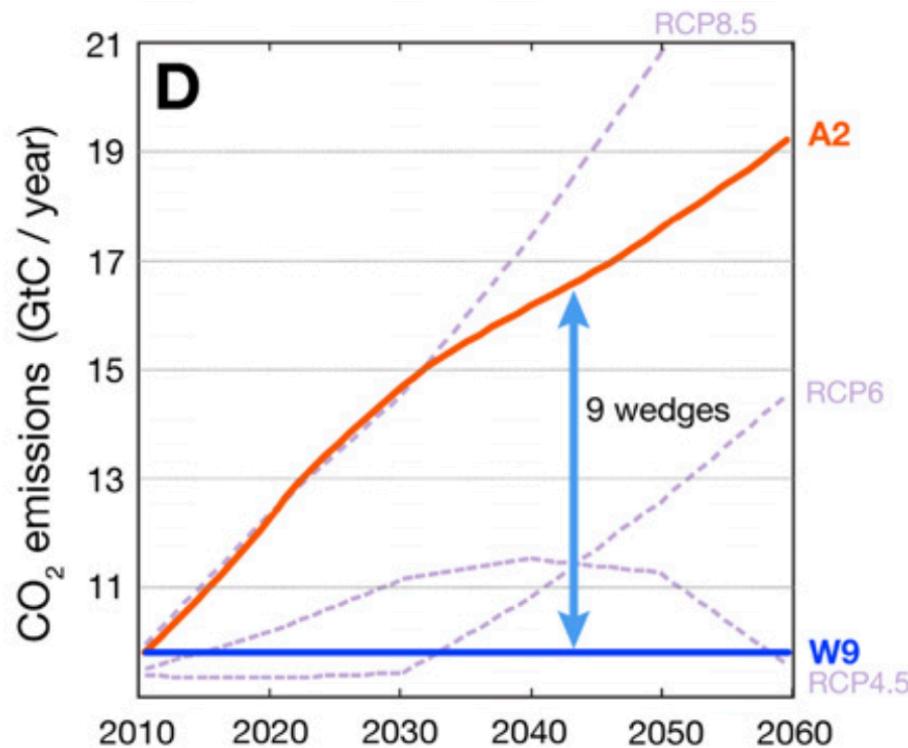
Source: <http://www.climatecentral.org/blogs/wedges-reaffirmed>

Reanalysis of the Wedges

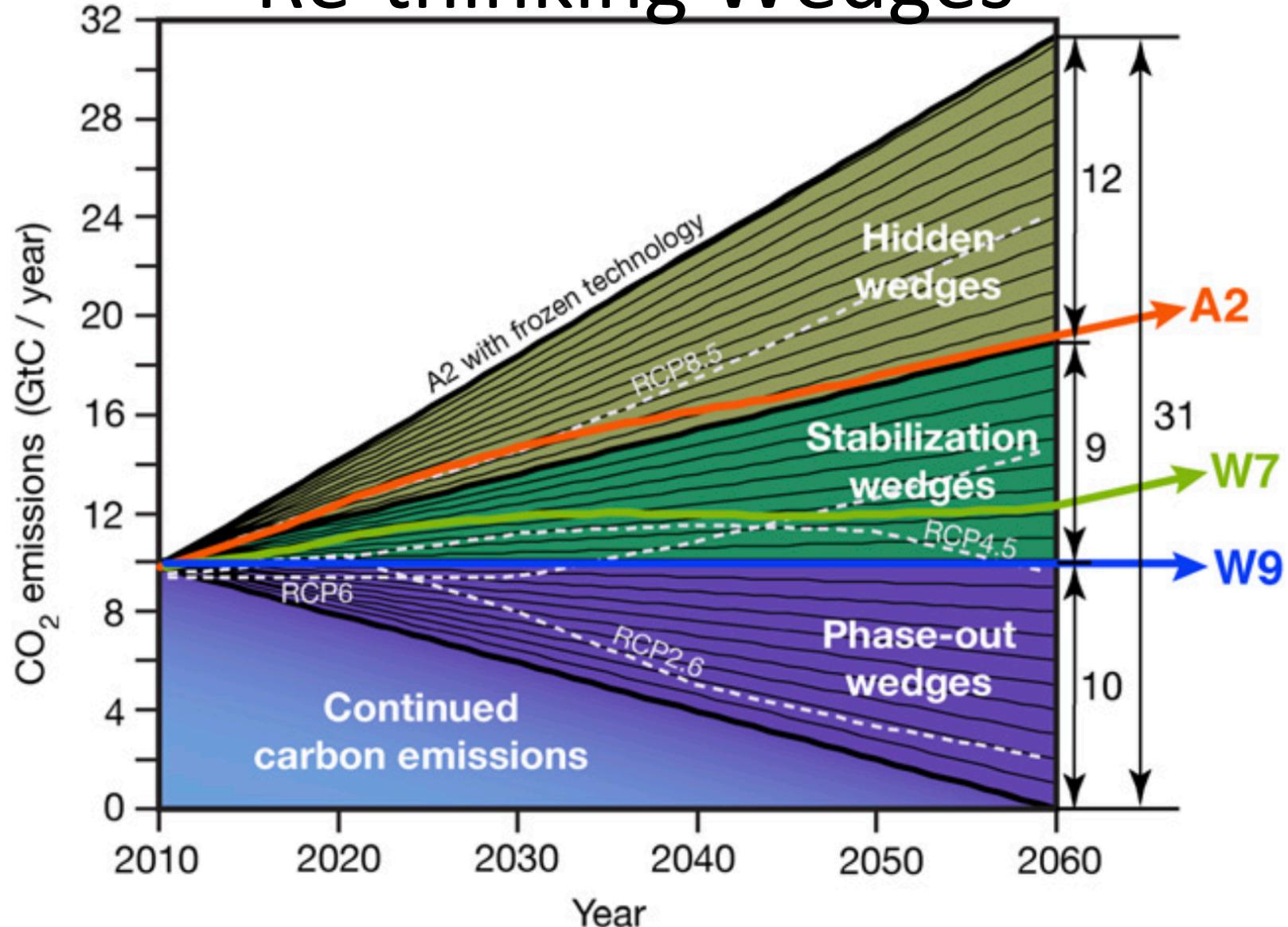


Davis, S. J., Cao, L., Caldeira, K., & Hoffert, M. I. (2013). Rethinking wedges. Environmental Research Letters, 8(1).

Reanalysis of the Wedges



Re-thinking Wedges



Davis, S. J., Cao, L., Caldeira, K., & Hoffert, M. I. (2013). Rethinking wedges. Environmental Research Letters, 8(1).

