

How the impact of Short-Lived Climate Pollutants depends on mitigation of Long-Lived Climate Pollutants

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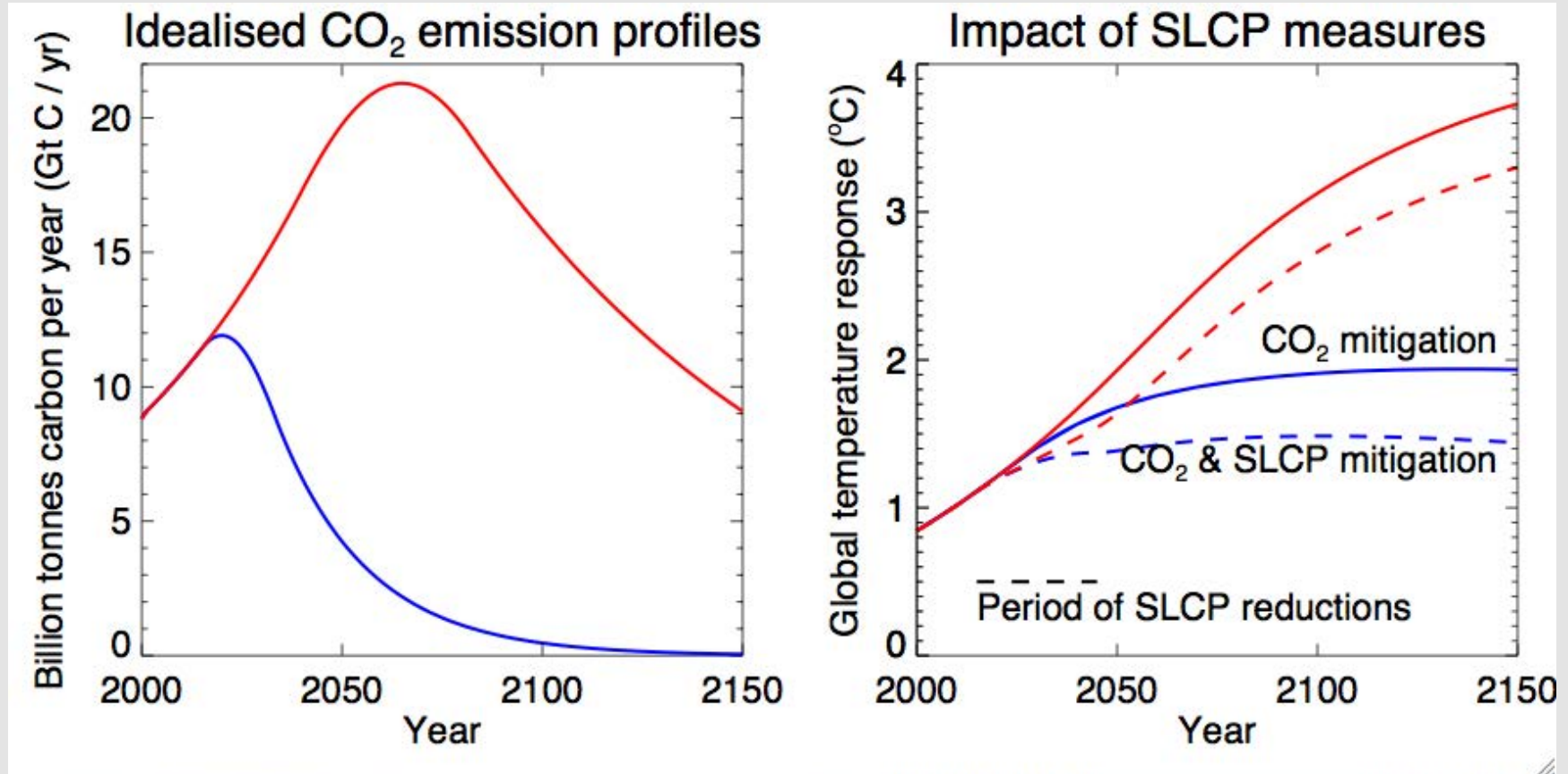
Thanks to: Niel Bowerman & David Frame & others



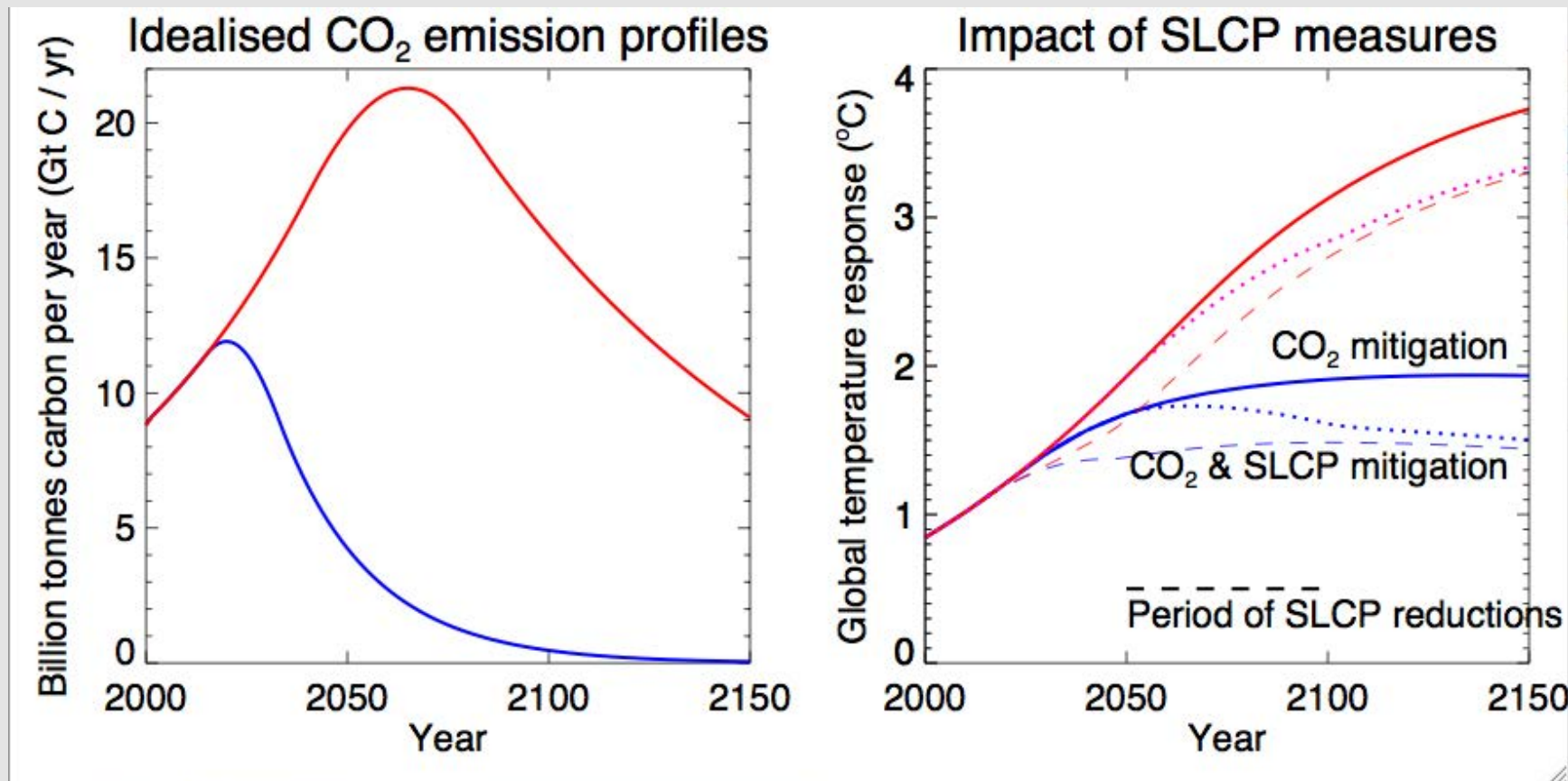
**Cranberry
sauce**



Impact of idealised SLCP mitigation



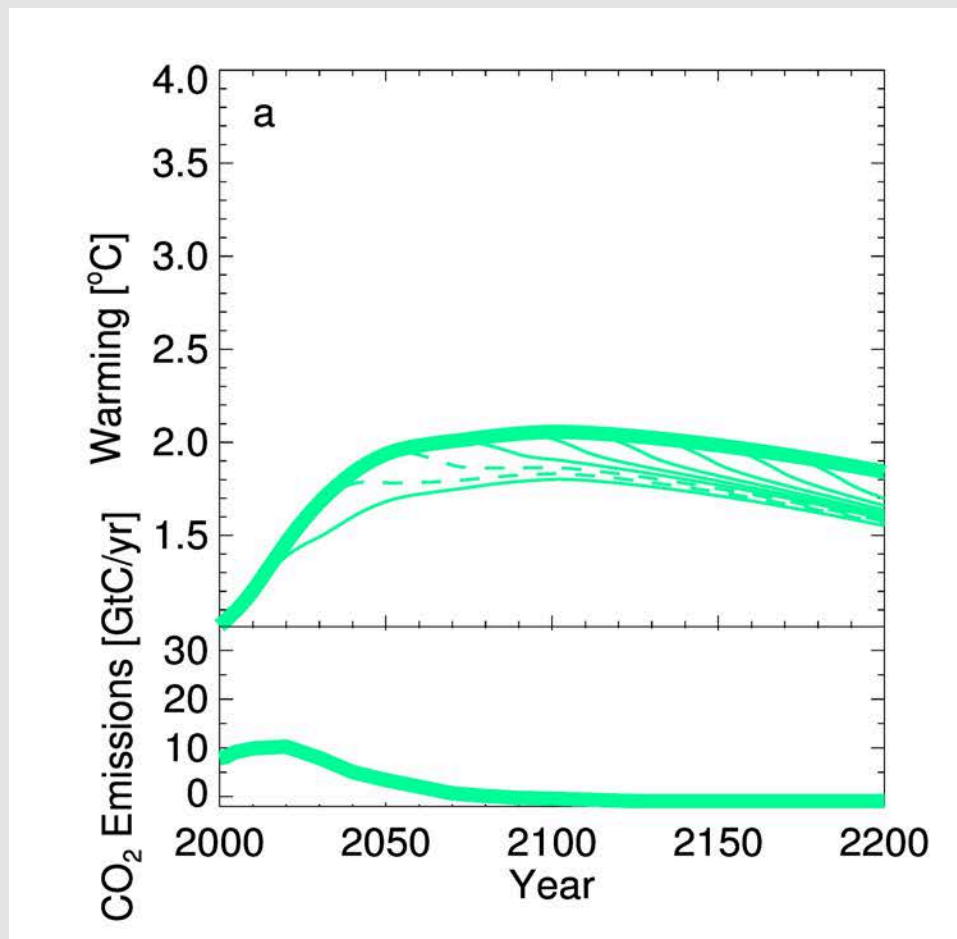
Impact of deferring SLCP mitigation to after 2050



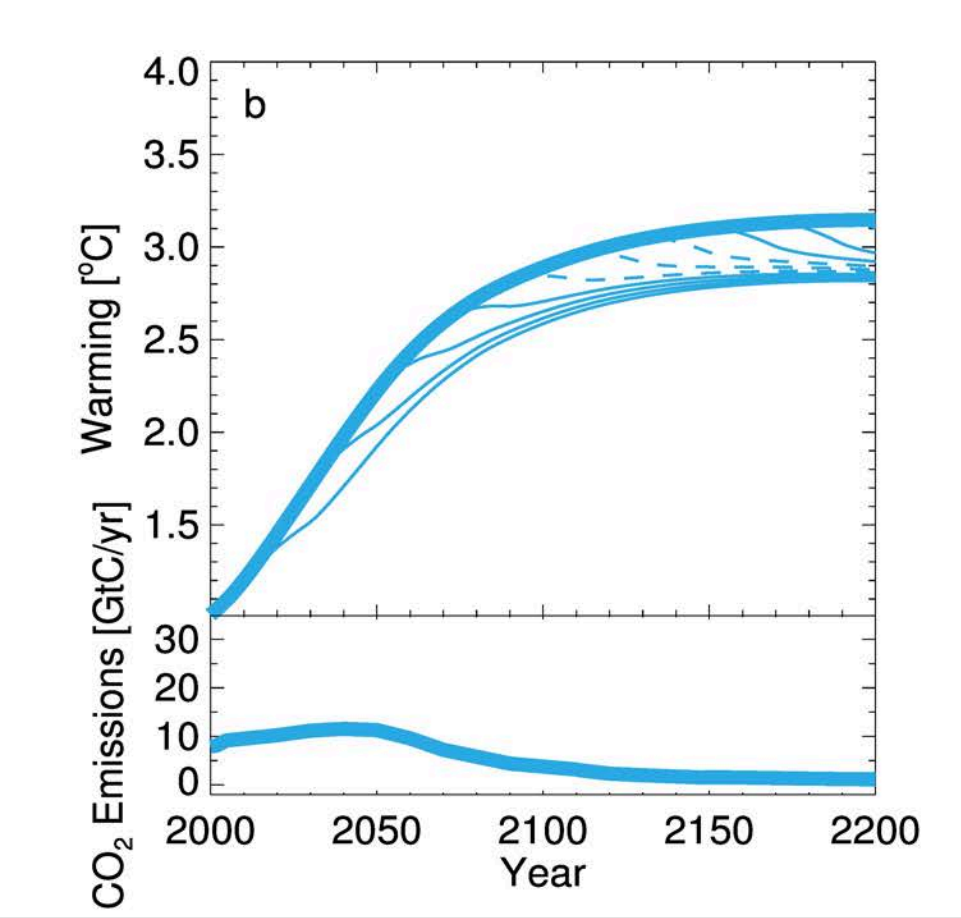
Peak warming under various scenarios

	Early and aggressive SLCP mitigation	Late and slower SLCP mitigation
Early and aggressive CO ₂ mitigation	1.5 °C	1.7 °C
Late and slower CO ₂ mitigation	3.6 °C	3.6 °C

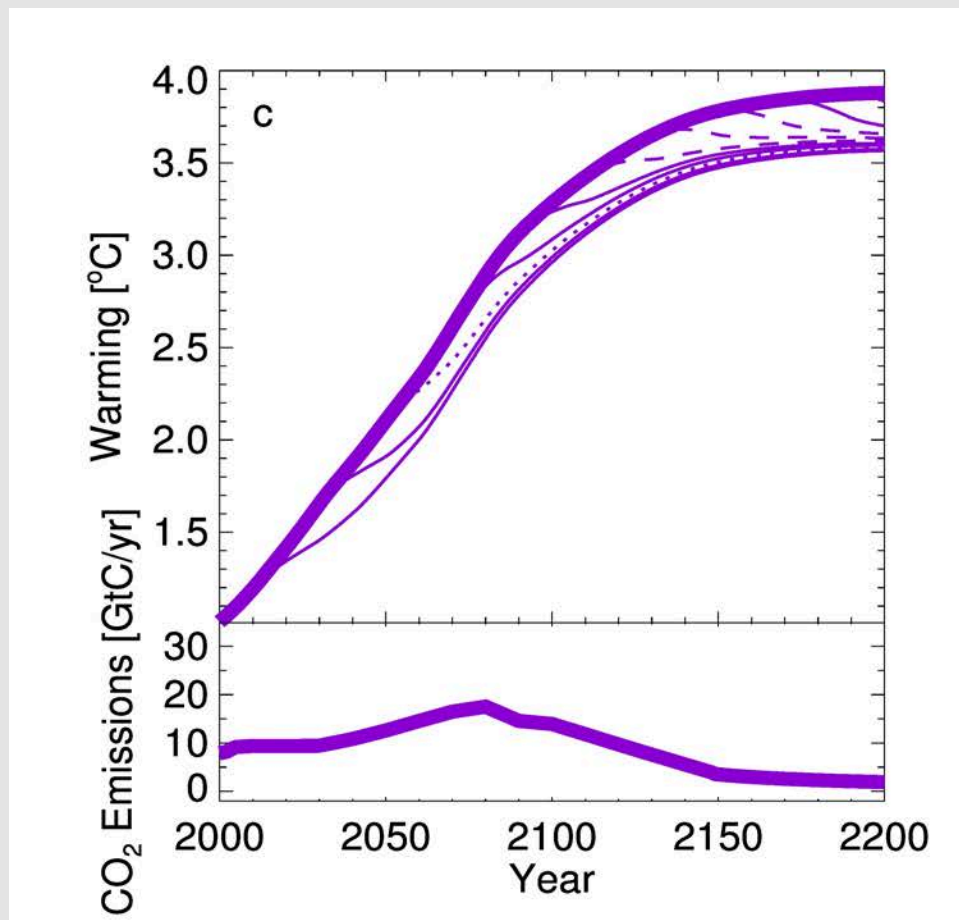
Impact of SLCP measures: RCP3PD scenario



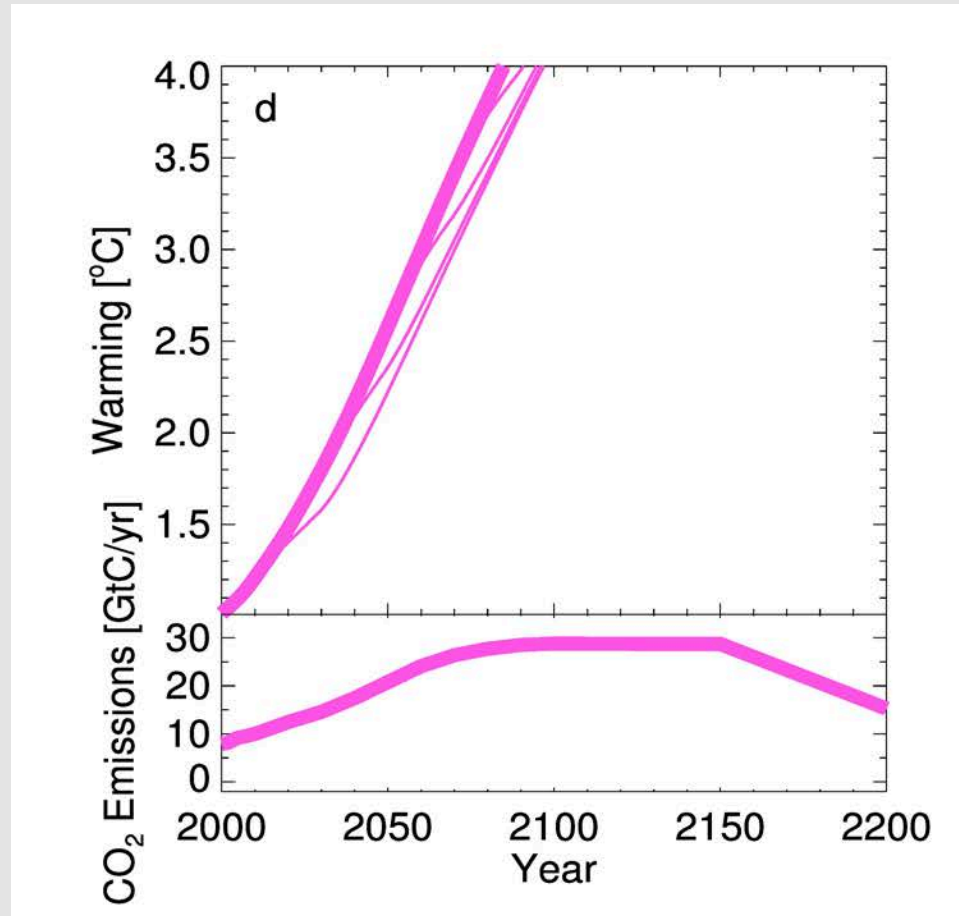
Impact of SLCP measures: RCP4.5 scenario



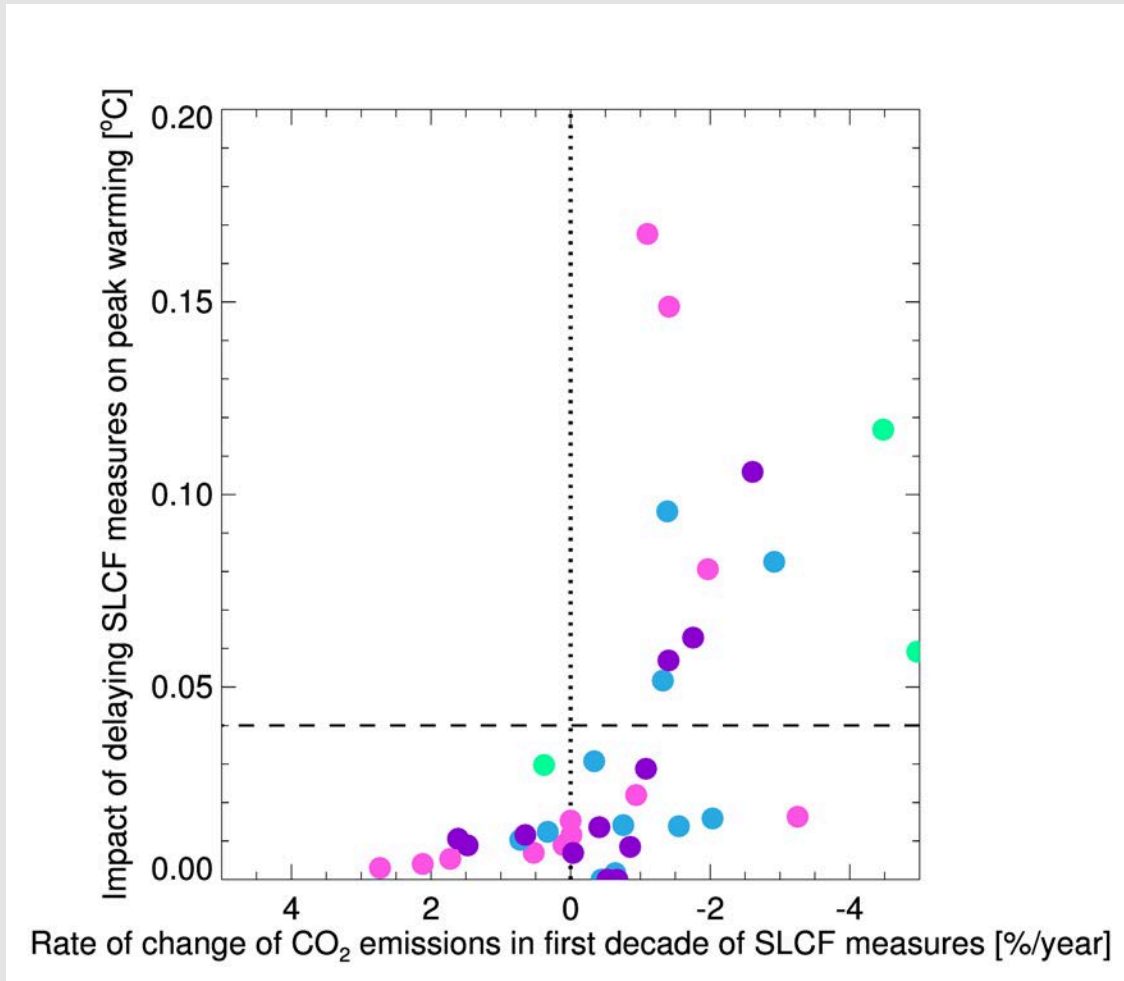
Impact of SLCP measures: RCP6 scenario



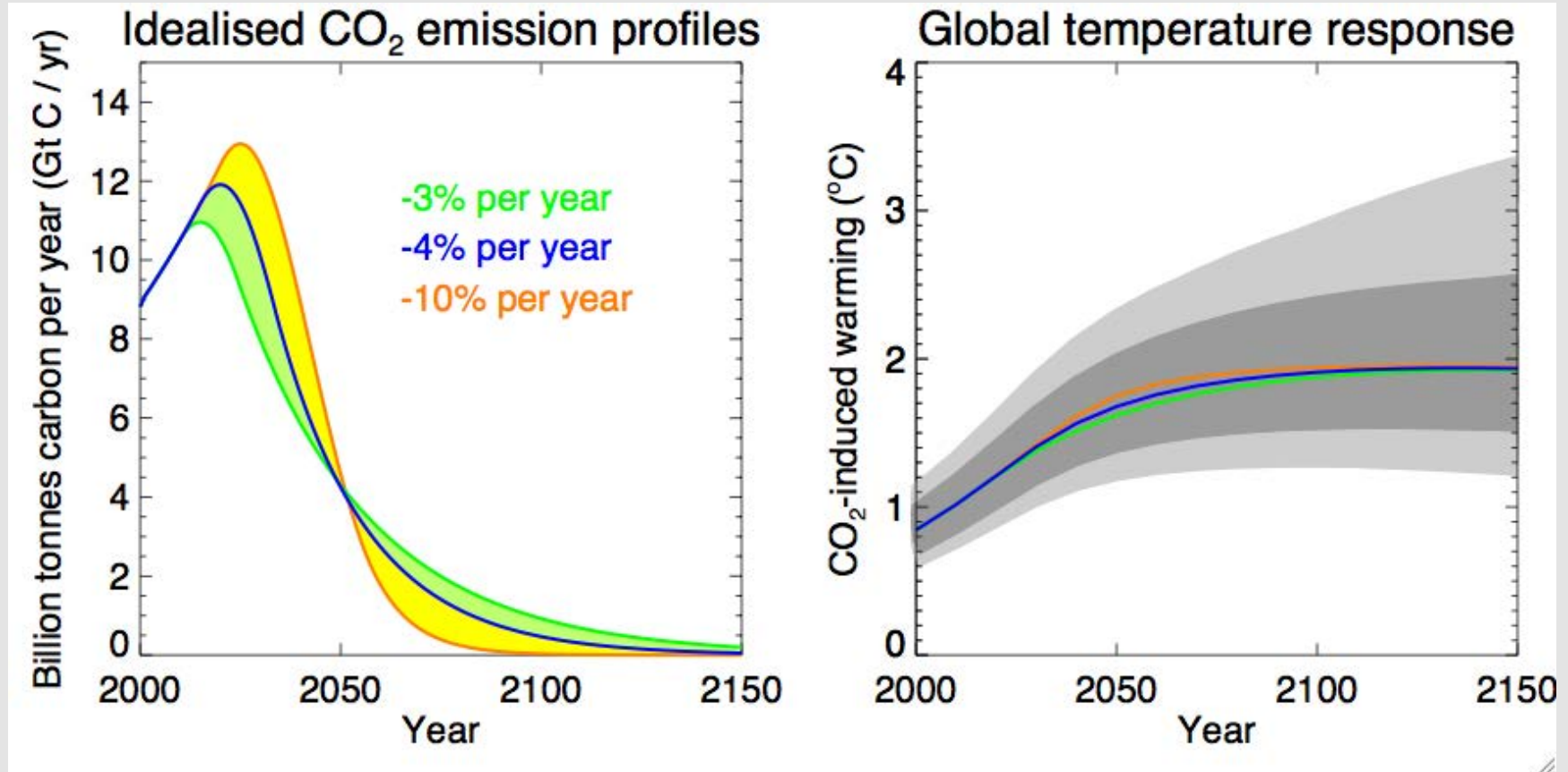
Impact of SLCP measures: RCP8.5 scenario



Impact of early implementation of SLCP measures as a function of CO₂ emission trends



CO₂ emissions matter most because they accumulate, unlike SLCPs



Take home messages

- SLCP emissions only affect peak warming under aggressive mitigation scenarios when CO₂ emissions are falling rapidly.
- Unless temperatures approach their peak in the next few decades, it makes no difference to *peak* warming whether SLCPs are cut now or after 2050
 - (it does make a difference to warming by 2050).
- The main factor determining peak warming is cumulative emissions of CO₂.
- Focusing *exclusively* on the 2°C (or 1.5°C) goal automatically focuses attention on the next few decades: potentially a problem if the goal is *not* met.

**SLCP mitigation complements LLCP (CO₂)
mitigation as cranberry sauce complements
turkey**

It's nice, but pointless without the turkey

