

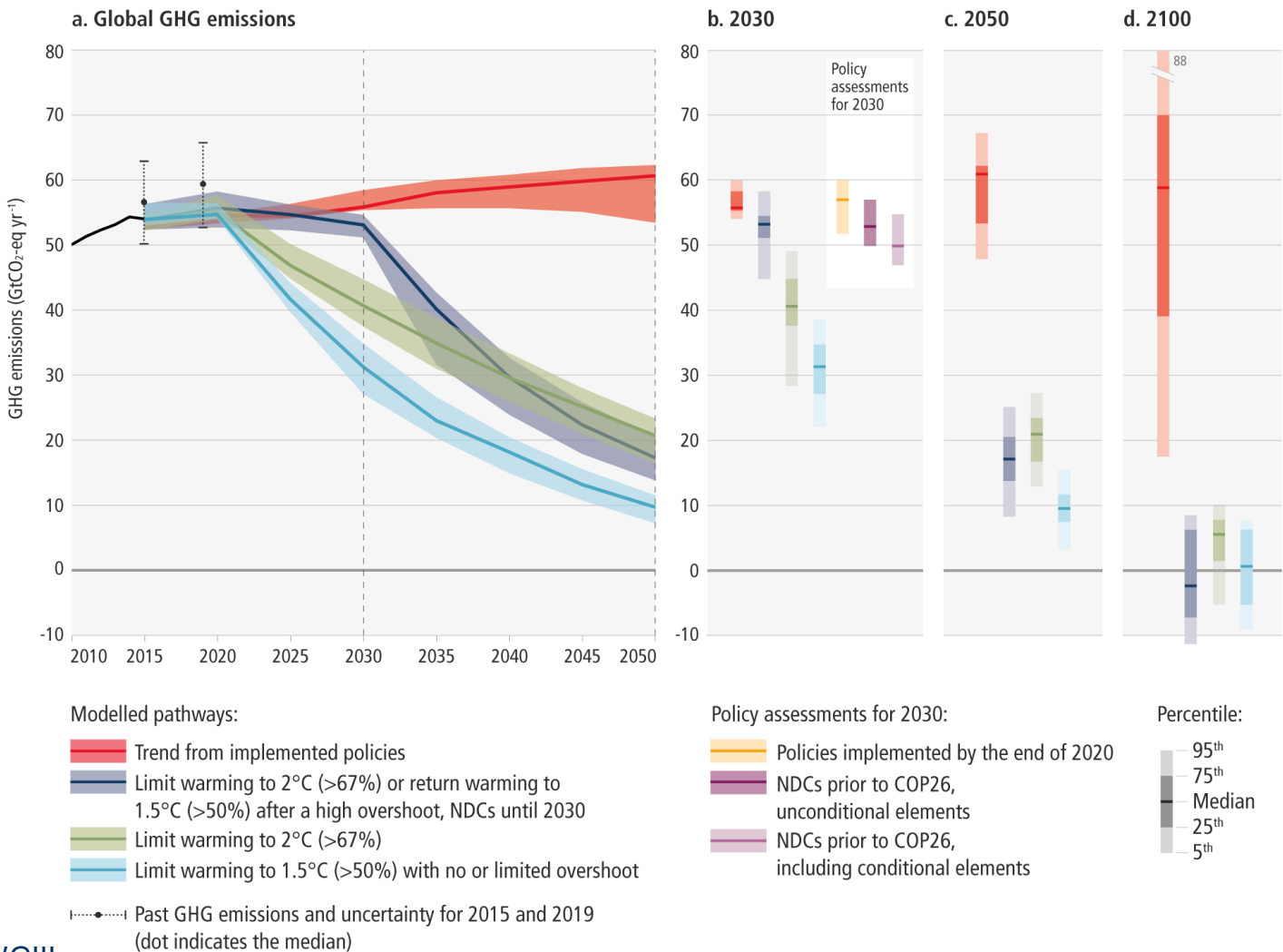
Opening Keynote

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Mitigation Progress, Gaps and Challenges

Projected global GHG emissions from NDCs announced prior to COP26 would make it likely that warming will exceed 1.5°C and also make it harder after 2030 to limit warming to below 2°C.



Assessment of Modelled Global Emission Scenarios {IPCC AR6 WGIII Box SPM.1, 1st paragraph}

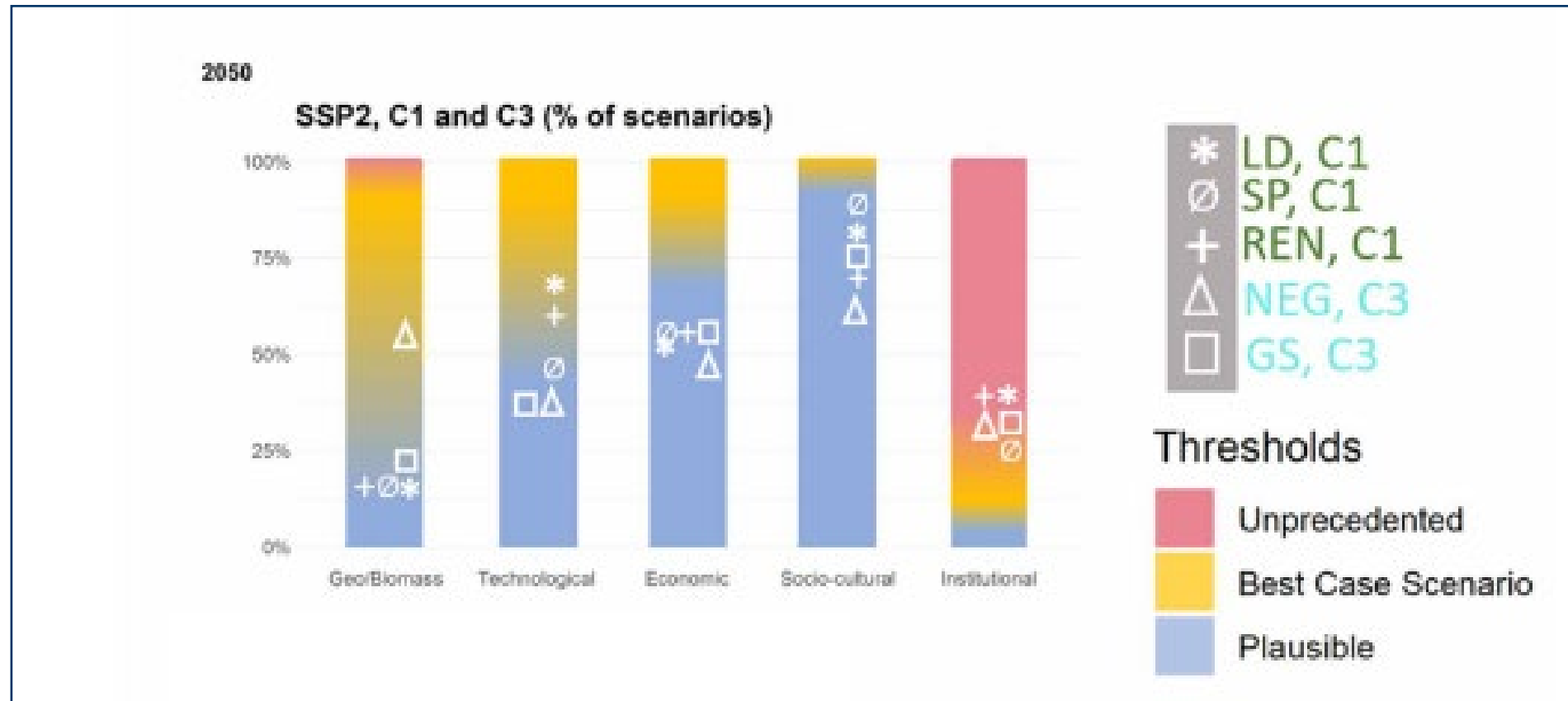
Box SPM.1 | Assessment of Modelled Global Emission Scenarios

A wide range of modelled global emission pathways and scenarios from the literature is assessed in this report, including pathways and scenarios with and without mitigation.⁴⁴ Emissions pathways and scenarios project the evolution of GHG emissions based on a set of internally consistent assumptions about future socio-economic conditions and related mitigation measures.⁴⁵ These are quantitative projections and are neither predictions nor forecasts. Around half of all modelled global emission scenarios assume cost-effective approaches that rely on least-cost emission abatement options globally. The other half look at existing policies and regionally and sectorally differentiated actions. Most do not make explicit assumptions about global equity, environmental justice or intra-regional income distribution. Global emission pathways, including those based on cost-effective approaches, contain regionally differentiated assumptions and outcomes, and have to be assessed with the careful recognition of these assumptions. This assessment focuses on their global characteristics. The majority of the assessed scenarios (about 80%) have become available since the SR1.5, but some were assessed in that report. Scenarios with and without mitigation were categorised based on their projected global warming over the 21st century, following the same scheme as in the SR1.5 for warming up to and including 2°C. {1.5, 3.2, 3.3, Annex III.II.2, Annex III.II.3}

Feasibility of Mitigation {IPCC AR6 WGIII SPM E.1}

There are mitigation options which are feasible to deploy at scale in the near term. Feasibility differs across sectors and regions, and according to capacities and the speed and scale of implementation. Barriers to feasibility would need to be reduced or removed, and enabling conditions strengthened to deploy mitigation options at scale. These barriers and enablers include geophysical, environmental-ecological, technological, and economic factors, and especially institutional and socio-cultural factors. Strengthened near-term action beyond the NDCs (announced prior to UNFCCC COP26) can reduce and/or avoid long-term feasibility challenges of global modelled pathways that limit warming to 1.5°C (>50%) with no or limited overshoot. (*high confidence*)

Feasibility

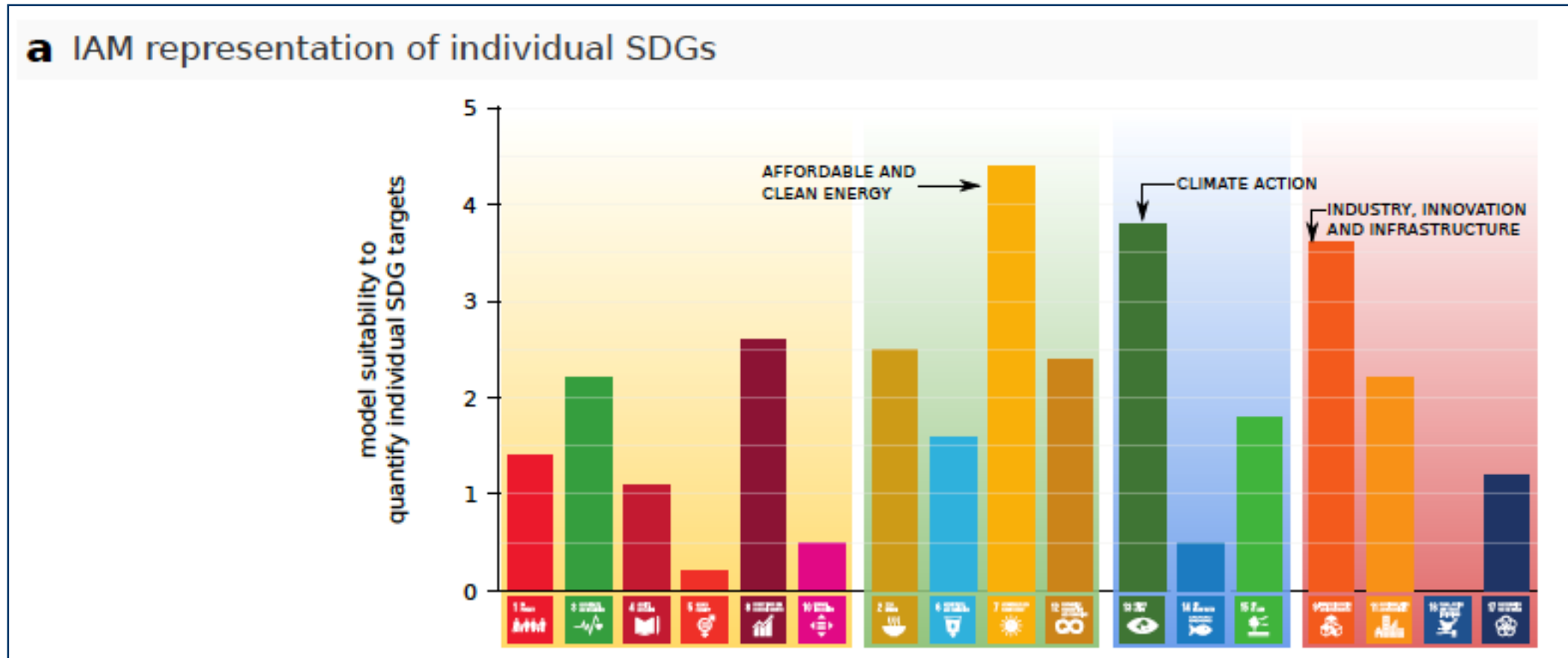


Example: Mitigation in aviation and shipping {IPCC AR6 WGIII SPM C.8.4}

While efficiency improvements (e.g., optimised aircraft and vessel designs, mass reduction, and propulsion system improvements) can provide some mitigation potential, additional CO₂ emissions mitigation technologies for aviation and shipping will be required (*high confidence*). For aviation, such technologies include high energy density biofuels (*high confidence*), and low-emission hydrogen and synthetic fuels (*medium confidence*). Alternative fuels for shipping include low-emission hydrogen, ammonia, biofuels, and other synthetic fuels (*medium confidence*). Electrification could play a niche role for aviation and shipping for short trips (*medium confidence*) and can reduce emissions from port and airport operations (*high confidence*). Improvements to national and international governance structures would further enable the decarbonization of shipping and aviation (*medium confidence*). Such improvements could include, for example, the implementation of stricter efficiency and carbon intensity standards for the sectors (*medium confidence*).



Representation of Sustainable Development



Thank you!