



PBL Netherlands Environmental
Assessment Agency



PROMISING CLIMATE PROGRESS

Recent net-zero pledges could take the world a long way towards meeting the Paris climate goals, but a gap remains

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Climate goals

- The **Paris Agreement** aims to limit the increase of global mean temperature to well below 2°C and preferably 1.5°C.
- Countries should set their own Nationally Determined Contributions (NDCs), including 2030 emissions targets and plans of action to achieve those targets.
- Since the Conference of the Parties (COP26), in Glasgow, in 2021, many nations have also set long-term goals, notably the **net-zero emissions targets**.



Climate goals

The crucial question is:

How close do these ambitions take us toward the Paris goals?





Evaluating the net-zero pledges

The **ENGAGE project** aims to answer this question, through a collaboration of global and national modelling groups assessing how current targets and policies affect emissions.

Integrated Assessment Models (IAMs) are useful to calculate plausible emissions pathways, globally and regionally, including an overview of mitigation options that could bring us closer to the Paris goals.



Scenarios

Current policies scenario: assuming all climate policies that are already implemented

NDC scenario: fully implementing all NDCs to 2030, with ambition levels remaining constant after that

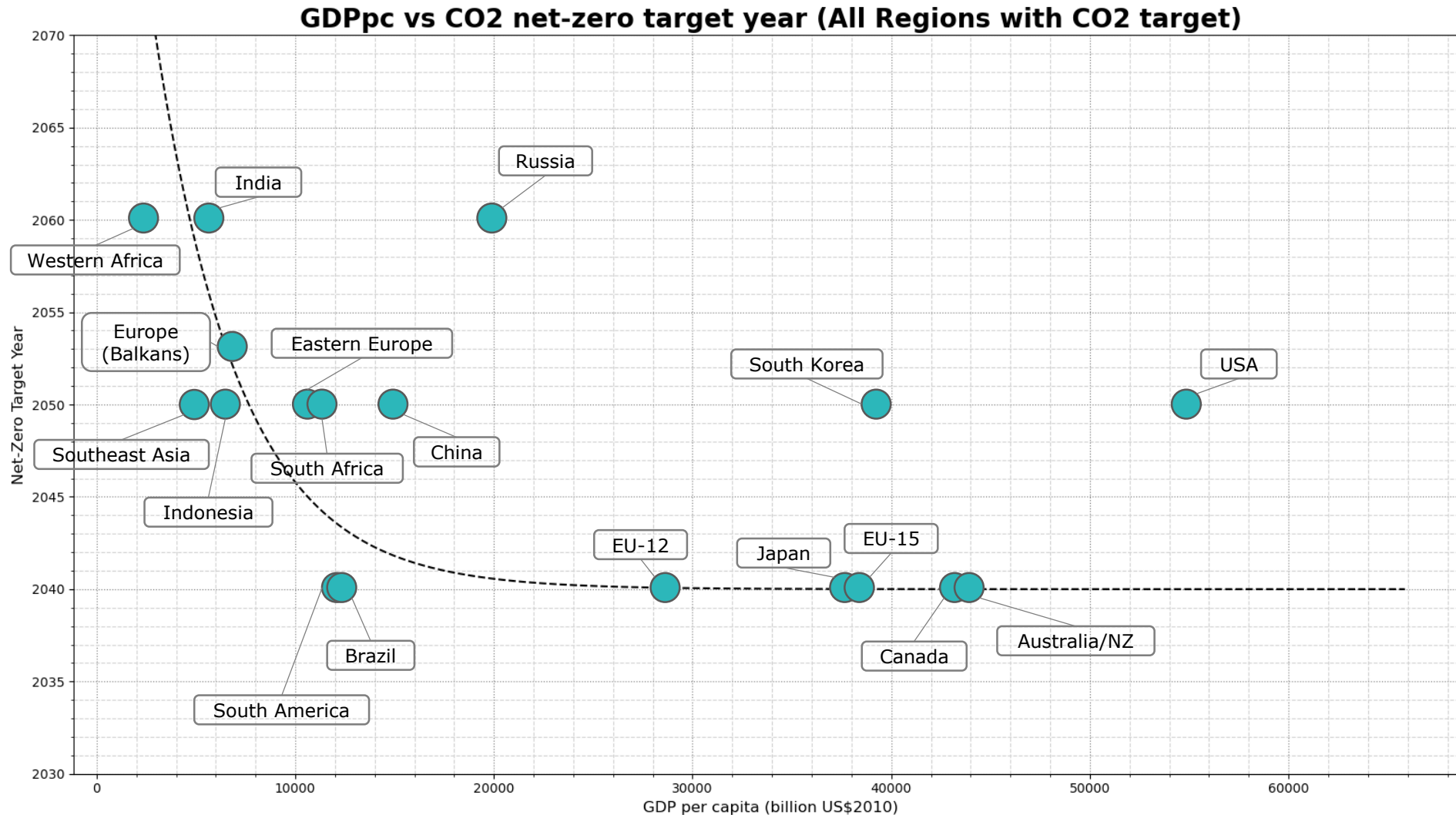
Glasgow scenario: fully implementing NDCs and the net-zero pledges

Glasgow+ scenario: fully implementing and expanding the net-zero pledges to all countries/regions

Glasgow++ scenario: fully implementing and expanding the net-zero pledges to all countries/regions, and anticipating climate action by 10 years

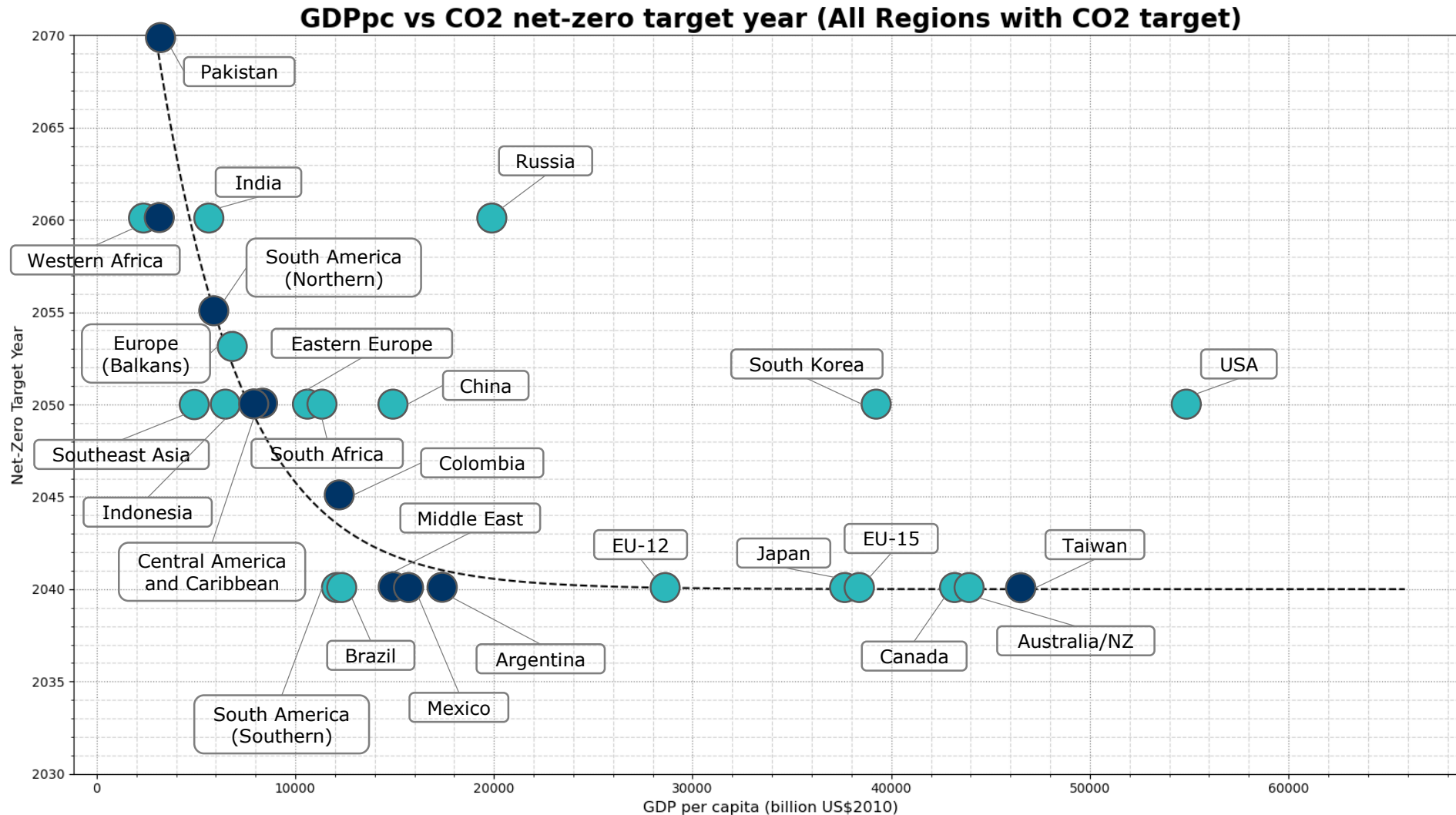
2°C and 1.5°C scenarios: models calculate global cost-optimal ways of meeting these temperature goals in 2100.

Expanding the net-zero coverage



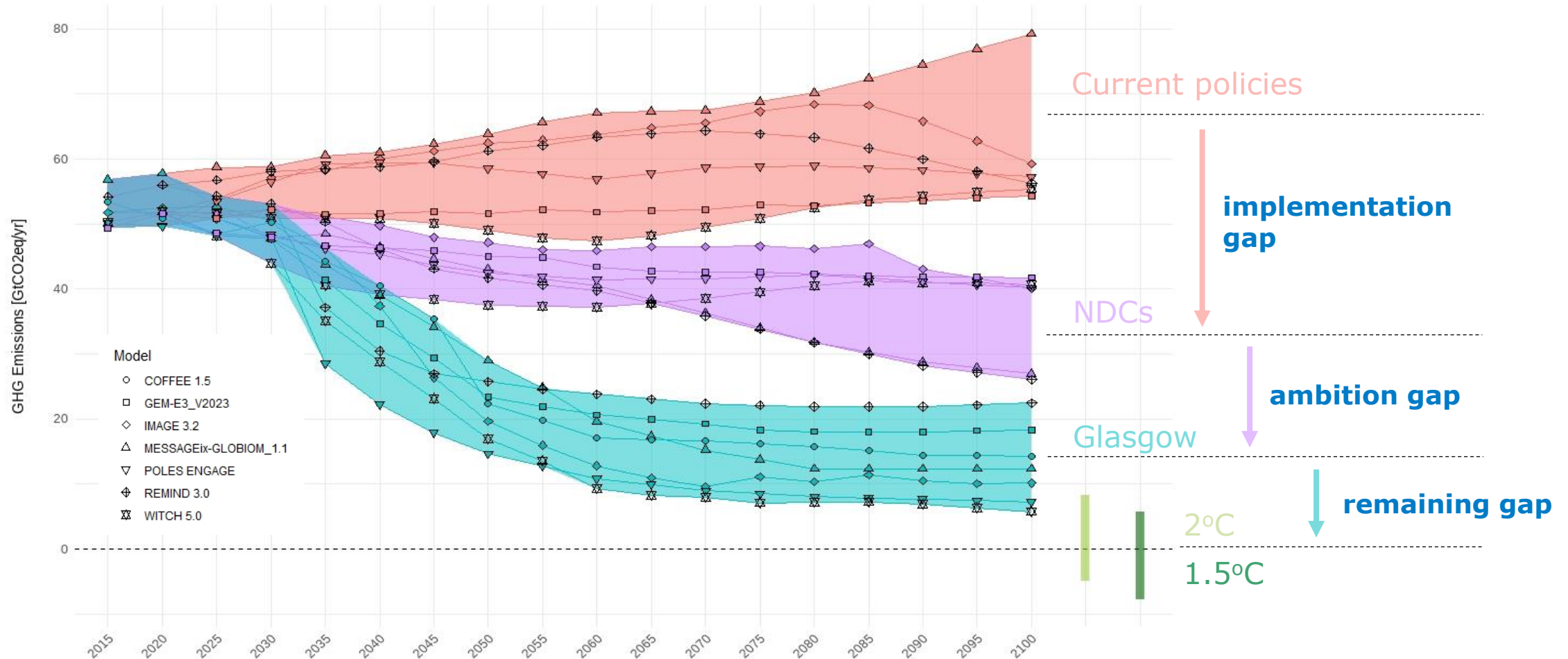
- Glasgow
- Glasgow+

Expanding the net-zero coverage

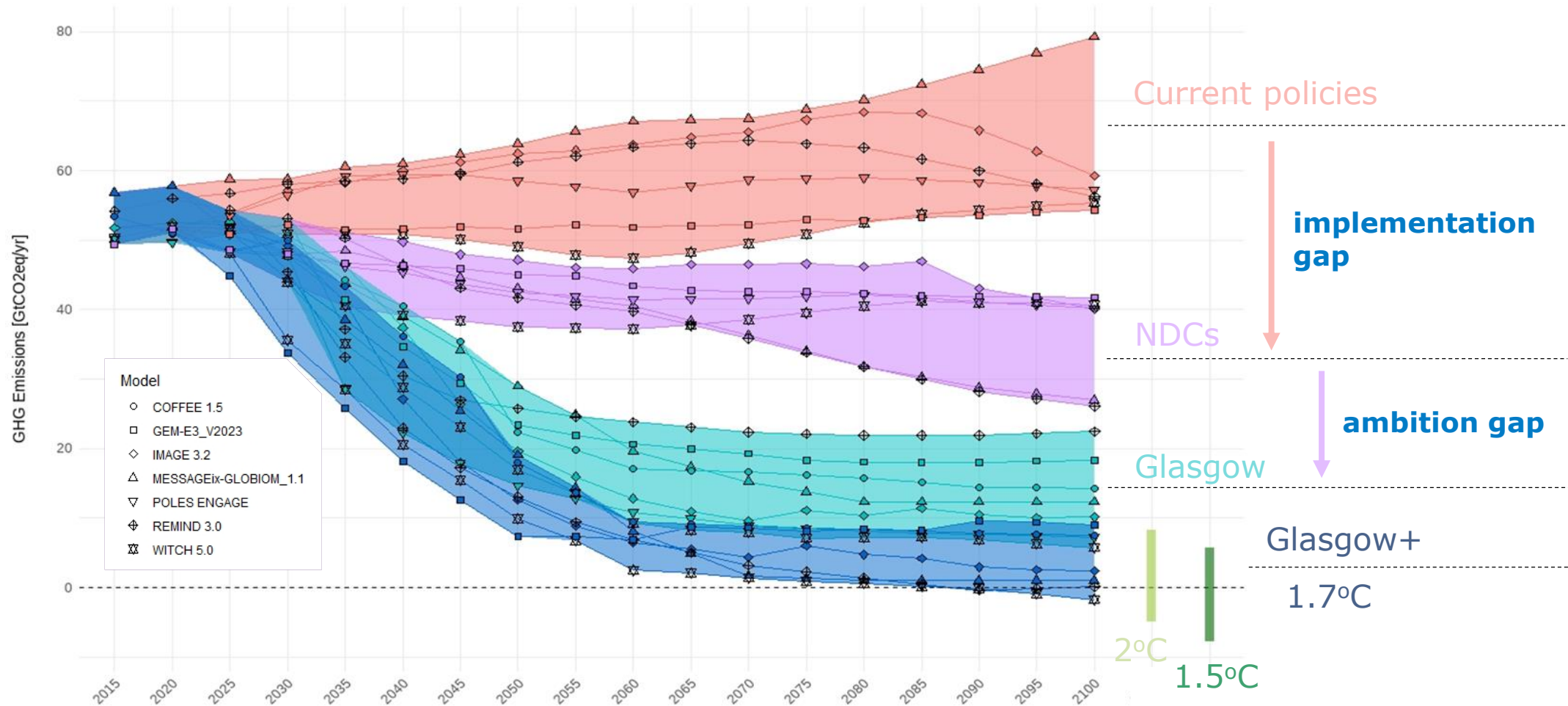


Possible futures

Implementing net-zero targets could make a difference!

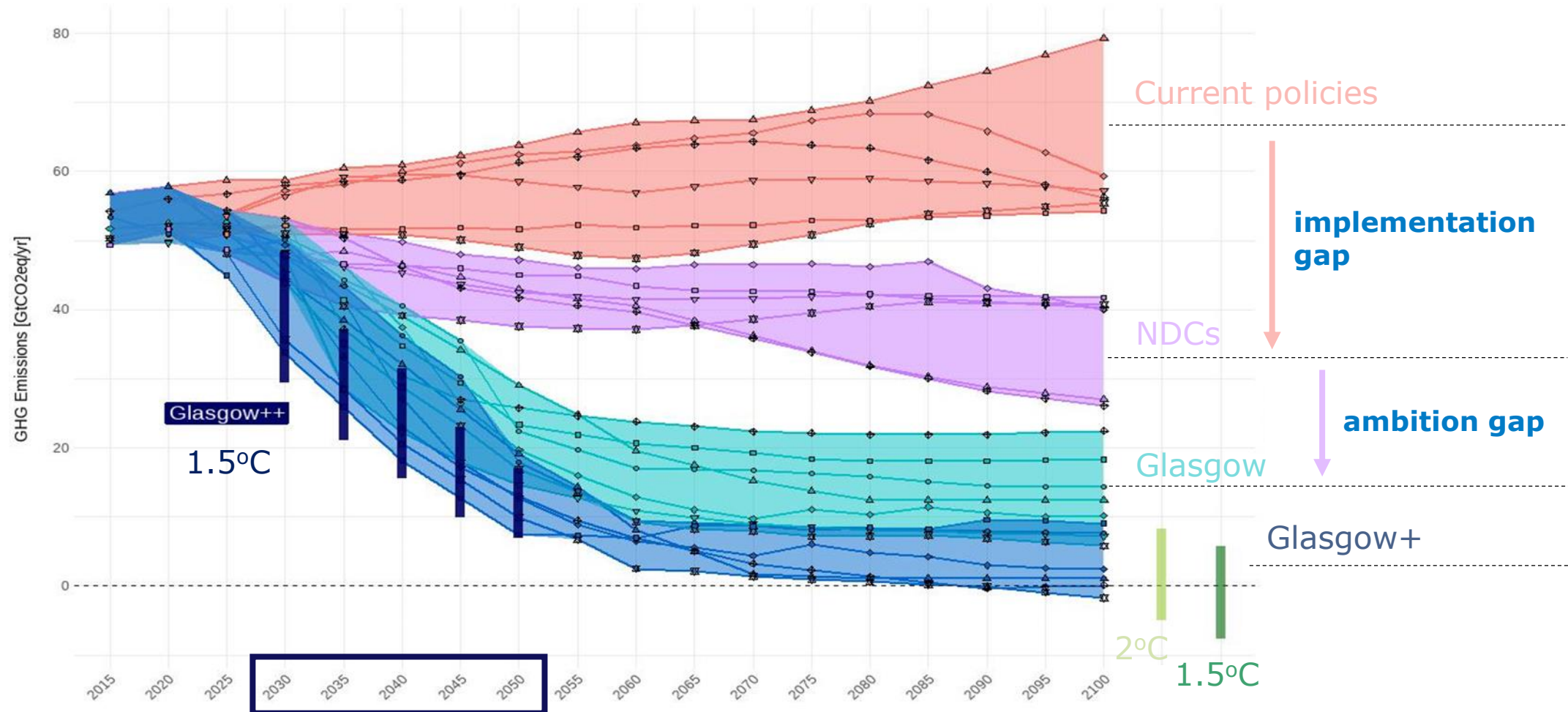


Possible futures

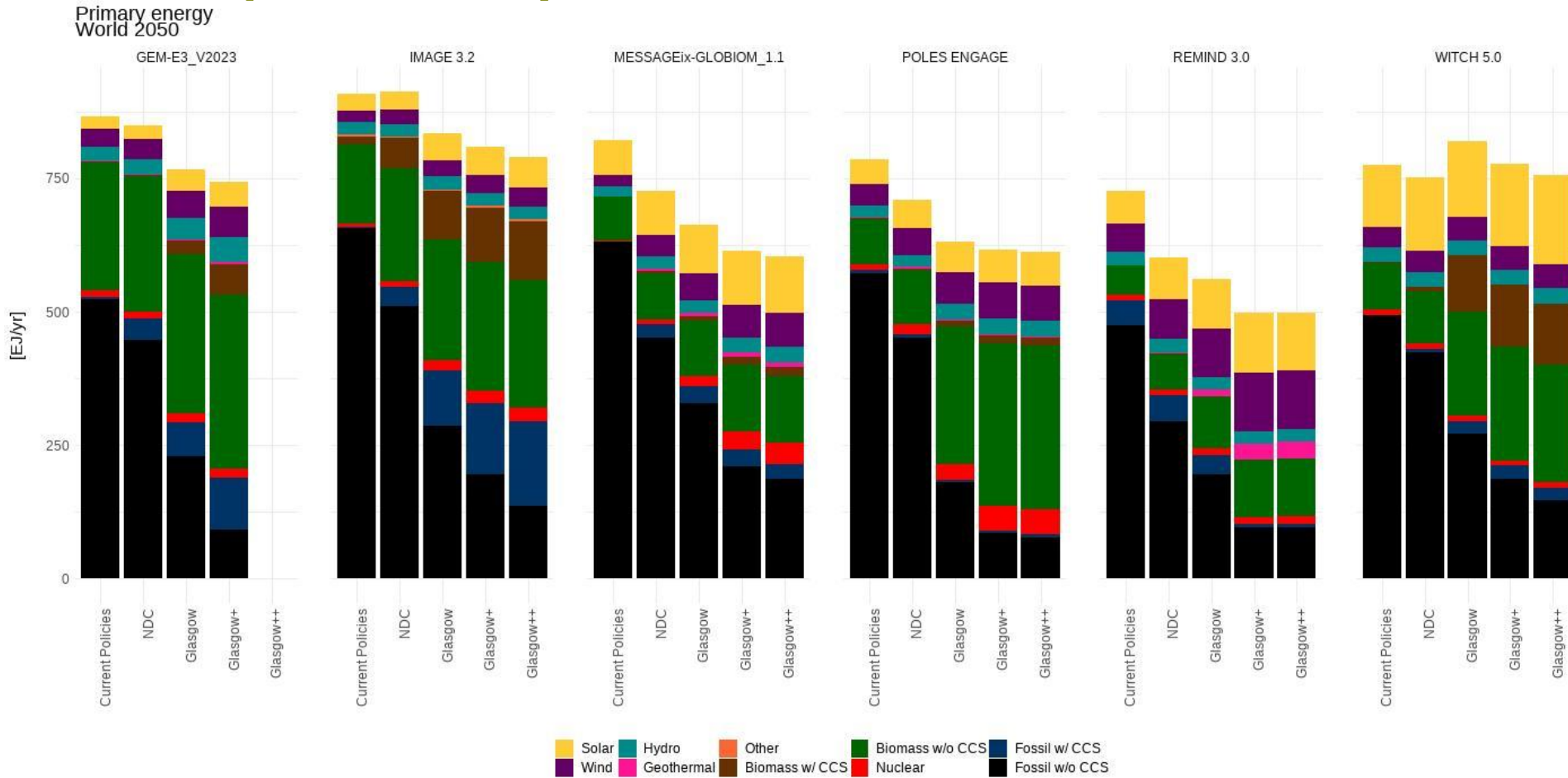


Possible futures

Increasing the global ambition is crucial to close the gap.



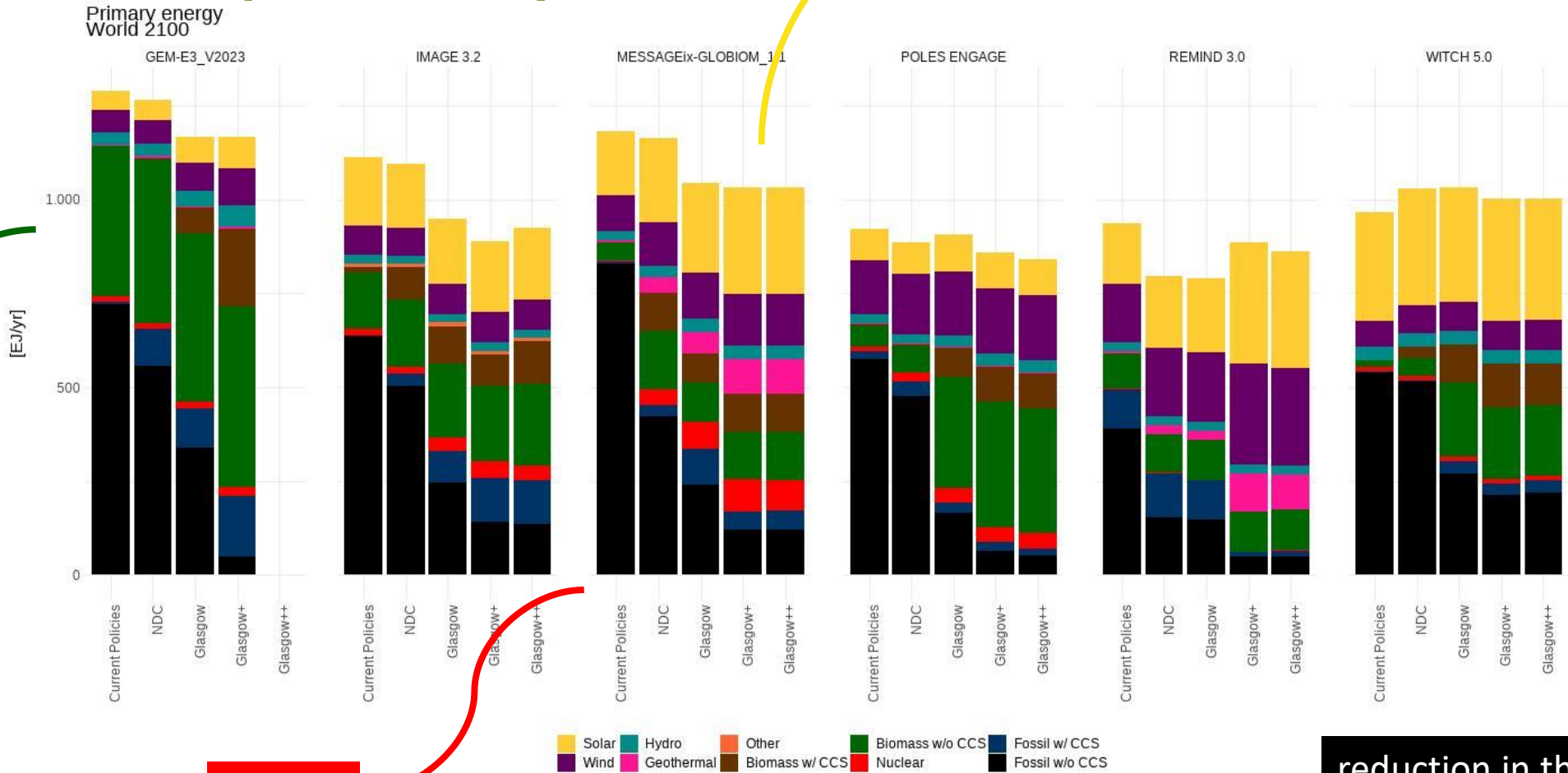
Different pathways



Different pathways

expanding the use of renewables

biomass



nuclear

reduction in the use of fossils



Closing the gap

- **Neither current policies nor existing NDCs come close to the Paris goals.** At best, current policies stabilize greenhouse gas emissions, whereas a deep cut is needed.
- **Recent net-zero targets are a big step forward.** Implementing the announced net-zero pledges would bring global emissions down to a much lower level than current policies or NDCs.
- **But they are still not enough to meet long-term climate goals.** To actually meet the Paris climate goals, **governments must deliver what they promised** and **global ambition must be increased further** – perhaps by more countries standing up to commit to net-zero and by increasing the ambition of the countries that already have net-zero pledges.



Closing the gap

- **To close the remaining gap, we must cut fossil fuels sharply, and further extend the reach of renewables.**
- **The optimum mix of mitigation approaches differs a lot for each country, with varying combinations of solar, wind, biomass, hydro, geothermal, carbon capture, wave and tide power.**



What does this mean for the EU?

- **Set the example on good practice:** make sure the EU delivers what is promised and helps support the expansion of renewables and the reduction in the use of fossils.
- **Explore international cooperation mechanisms** to ensure a **just transition:** under the provisions of Article 6 of the Paris Agreement, including
 - Knowledge transfer and capacity building
 - Technology transfer and financing of low emission technologies (R&D) and infrastructure
 - Support good governance (effects of governance on feasibility of mitigation in the next parallel session)



Thank you!

More info can be found at:

ENGAGE (<http://www.engage-climate.org/project/>)

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