

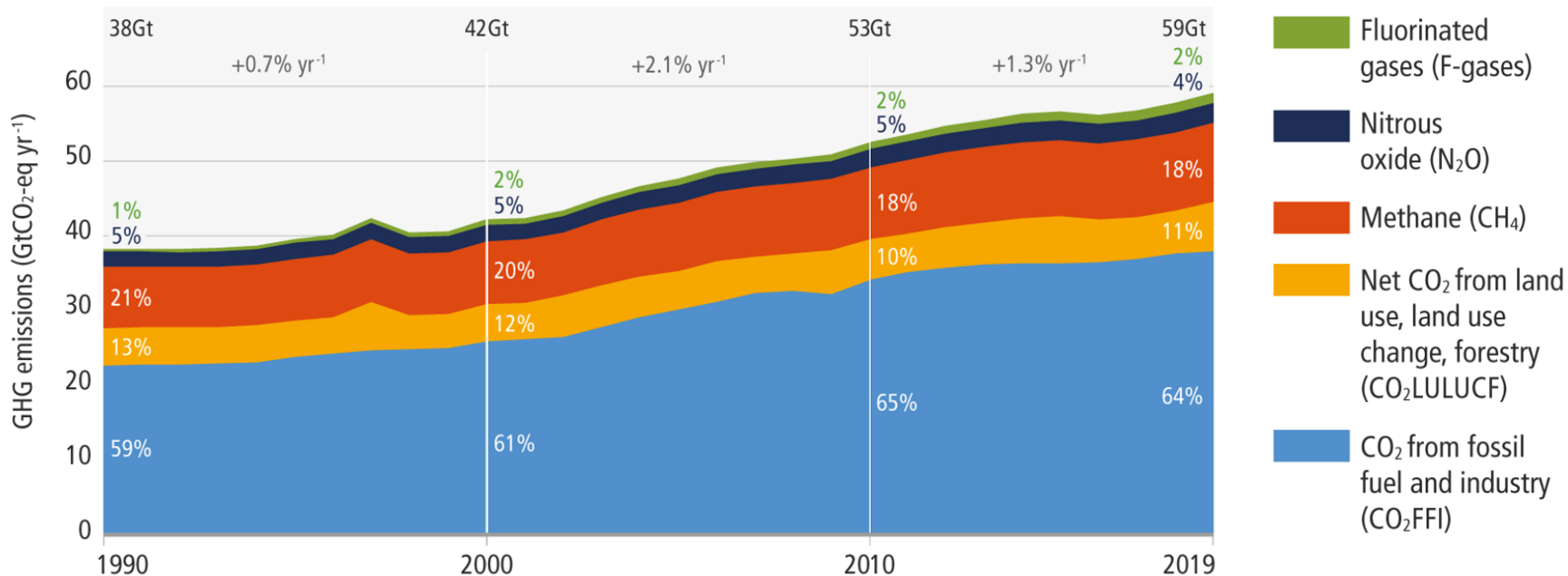


Hoe kunnen we wel onder de 1,5 graad blijven - wat is daarvoor nodig?

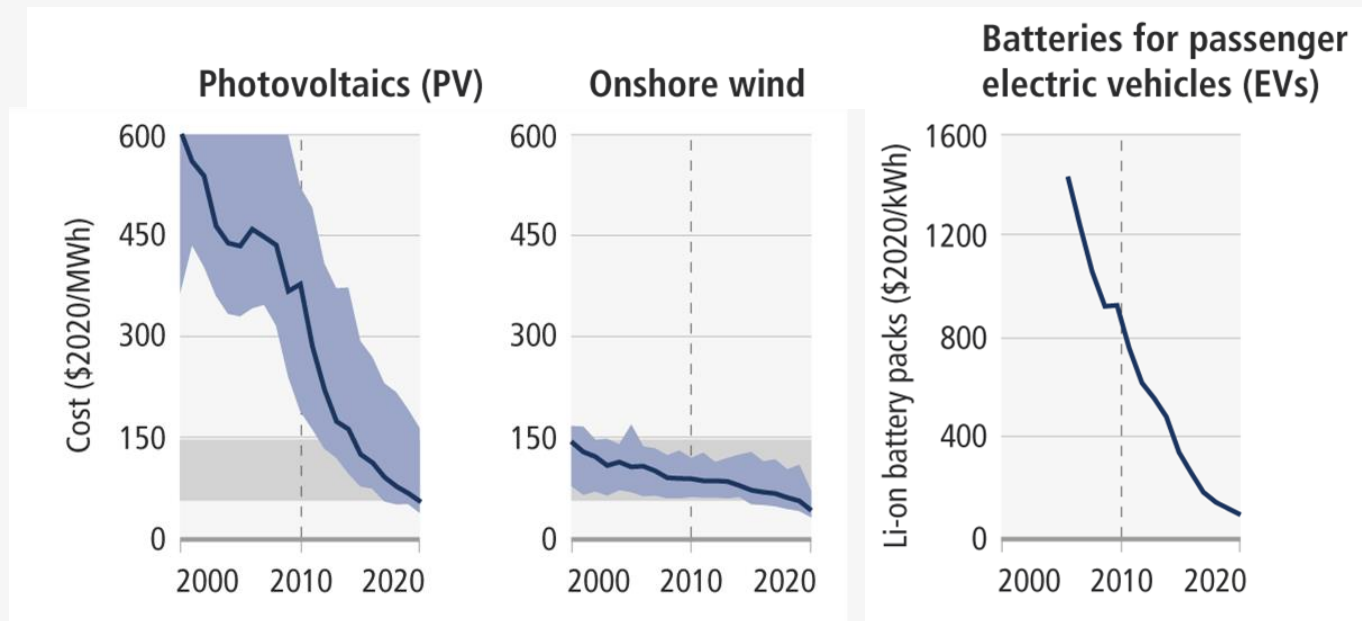
Grootouders voor het klimaat,
Webinar, 21 Sept. 2022

Kornelis Blok
Technische Universiteit Delft

De uitstoot van broeikasgassen blijft stijgen

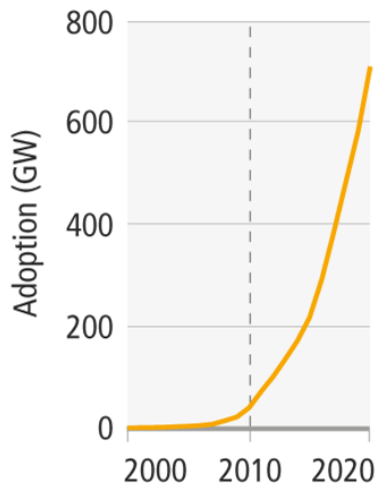


De kosten van belangrijke energietechnologie zijn de laatste decennia sterk gedaald



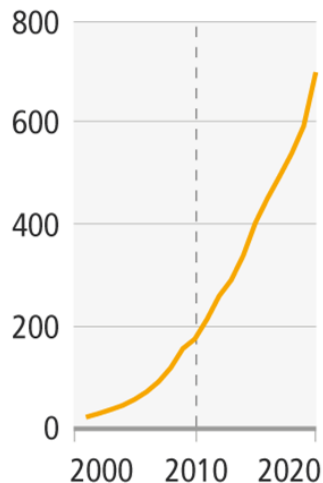
... en de toepassing van deze technologie is sterk toegenomen.

Photovoltaics (PV)



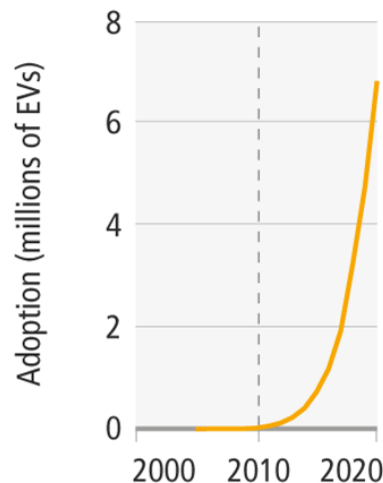
Share of electricity produced in 2020: 3%

Onshore wind



Share of electricity produced in 2020: 6%

Batteries for passenger electric vehicles (EVs)



Share of passenger vehicle fleet in 2020: 1%

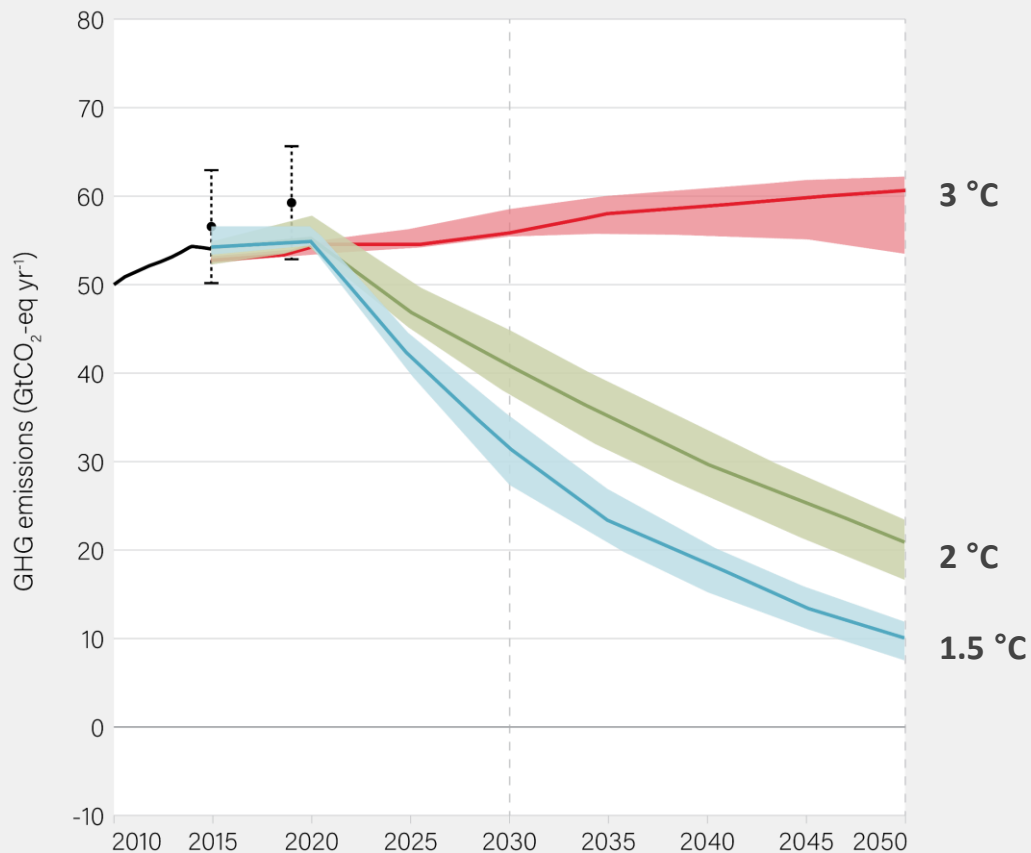
Wat is er nodig?

Beperken opwarming tot 2°C

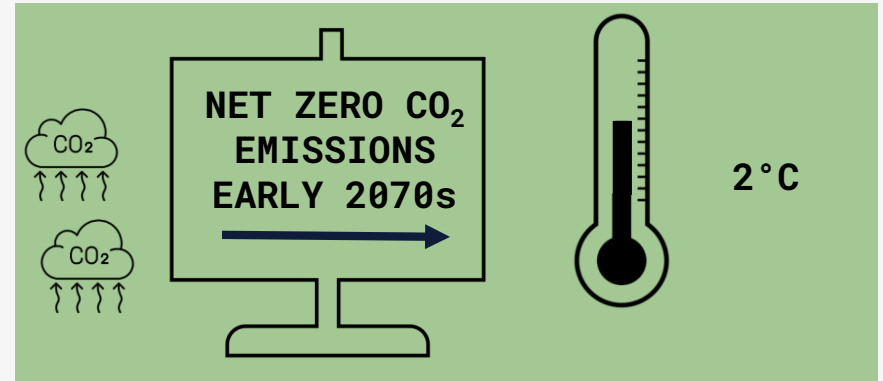
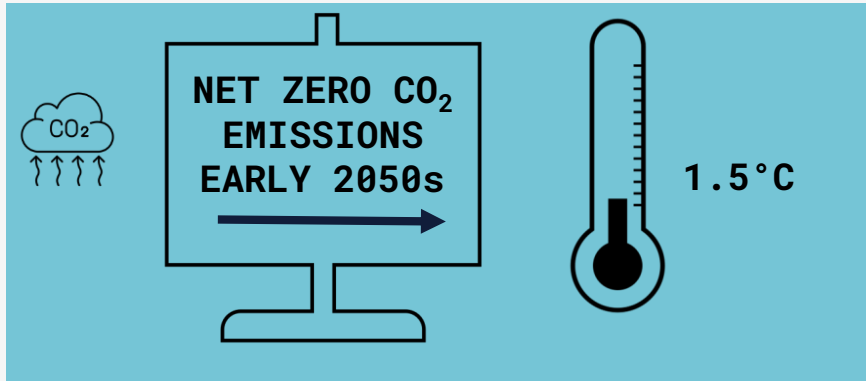
- Wereldwijde uitstoot broeikasgassen in 2030 **27%** lager dan nu

Beperken opwarming tot 1.5 °C

- Wereldwijde uitstoot broeikasgassen in 2030 **43%** lager dan nu



Hoe dan ook moeten we in de loop van deze eeuw de **netto uitstoot** van CO₂ naar **nul** terugbrengen

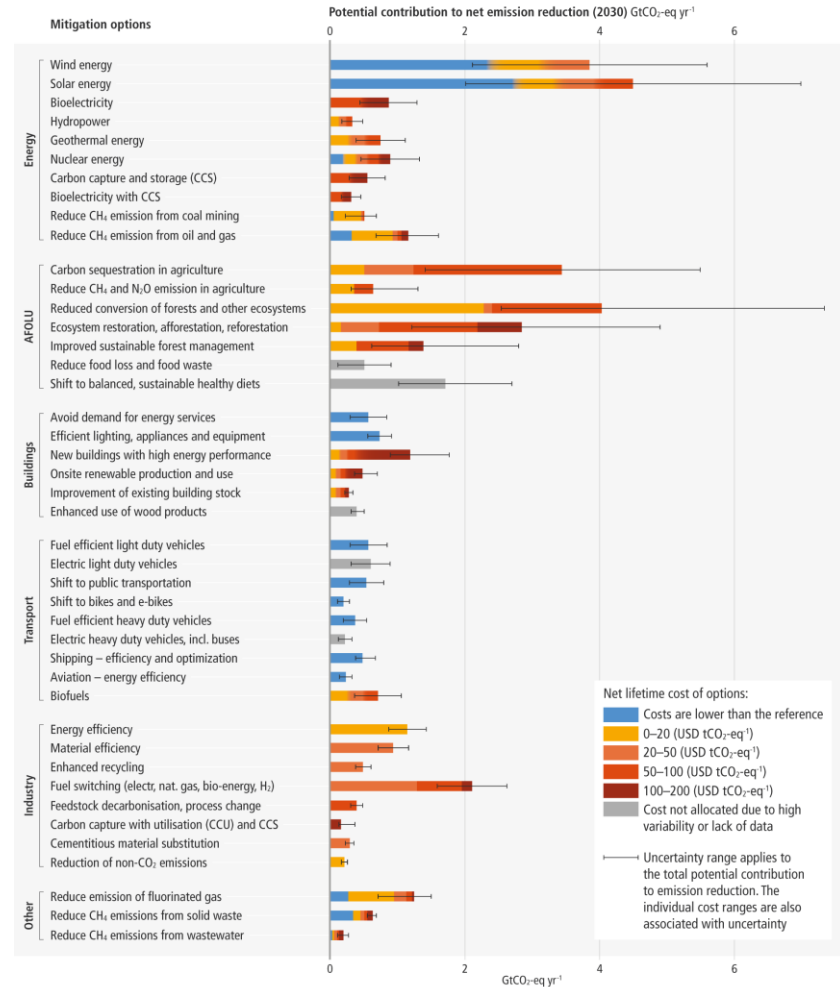


“

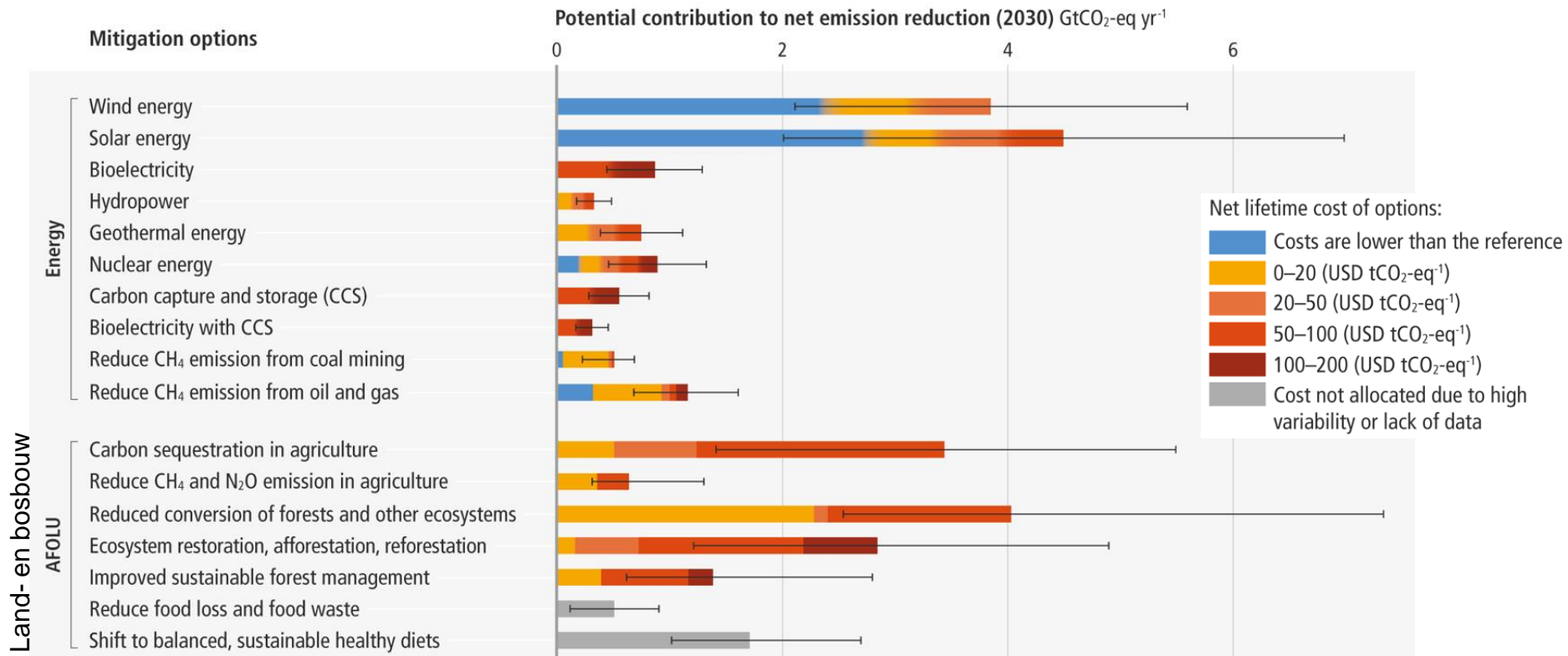
Unless there are immediate and deep emissions reductions across all sectors, 1.5°C is beyond reach.

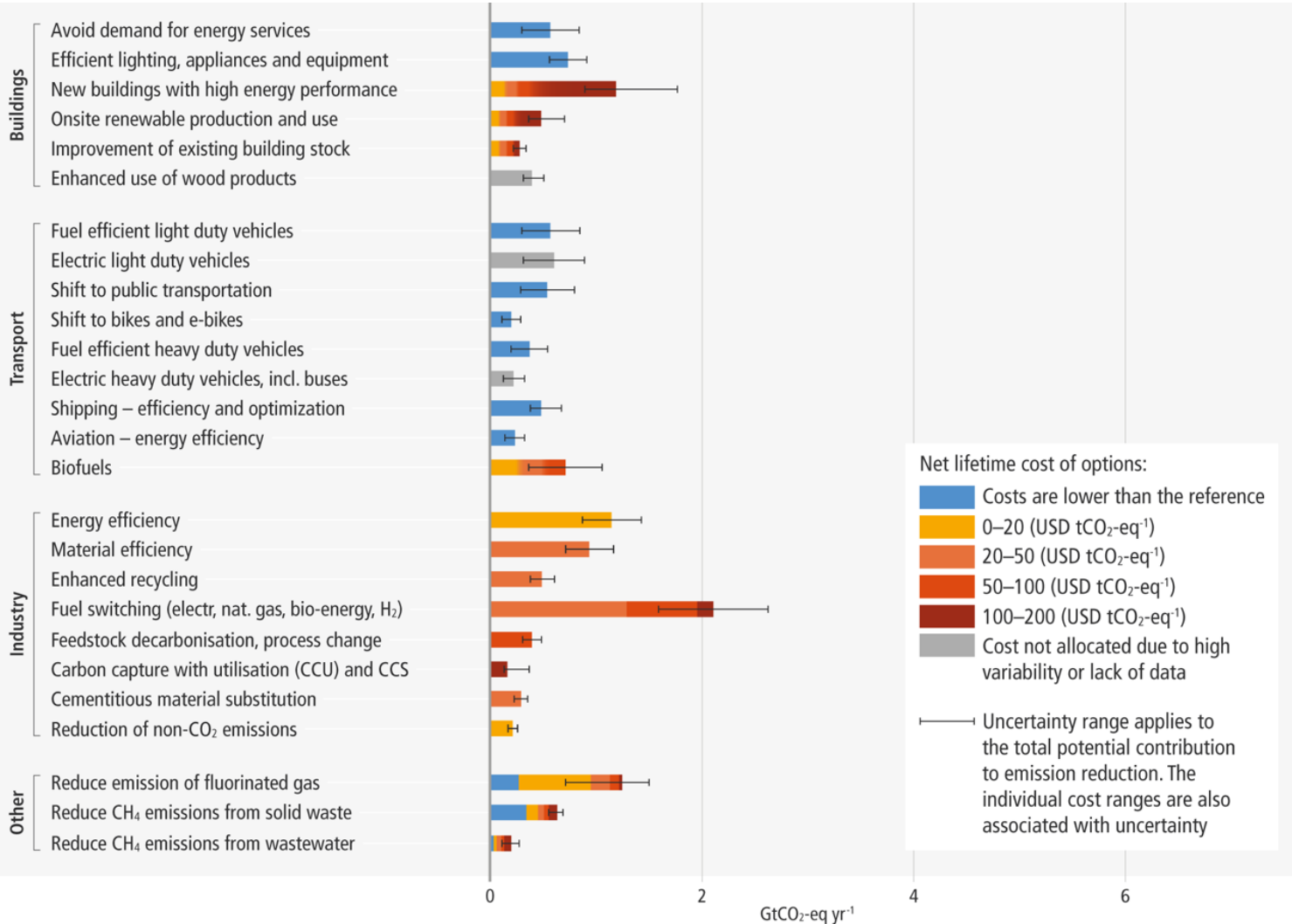
Er zijn veel opties – in alle sectoren – die de netto uitstoot van broeikasgassen al in 2030 aanzienlijk terug kunnen brengen.

Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030. Relative potentials and costs will vary across countries and in the longer term compared to 2030.



Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030. Relative potentials and costs will vary across countries and in the longer term compared to 2030.





Voor dit decennium genoeg maatregelen om wereldwijde uitstoot te halveren

(minder dan 100 \$/tCO₂e)

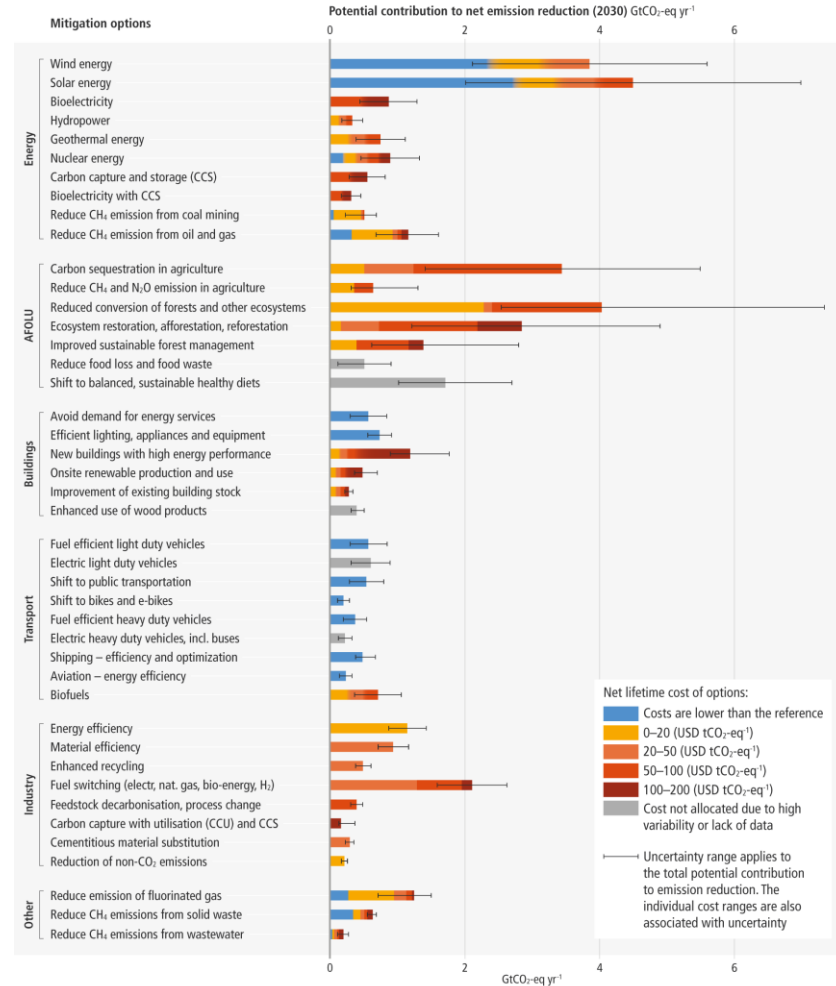
Groot en relatief goedkoop:

- wind
- zon
- energiebesparing
- stoppen ontbossing
- reductie methaan-uitstoot

Na 2030 een grotere rol voor:

- nieuwe brandstoffen (zoals waterstof)
- nieuwe industriële processen
- CO₂ uit de lucht halen

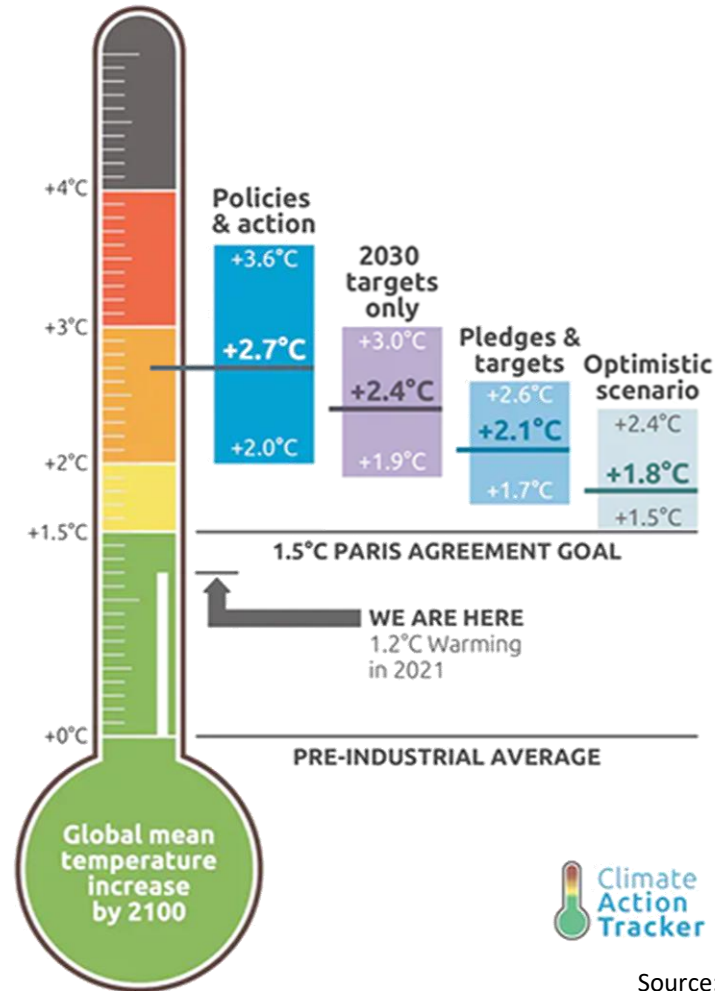
Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030. Relative potentials and costs will vary across countries and in the longer term compared to 2030.



Parijs-akkoord: het ratelmechanisme



Where do we stand now?



Meer lezen over het IPCC rapport

- Heel kort: <https://www.nu.nl/klimaat/6193195/haast-in-klimaatstrijd-olie-kolen-en-gasverbruik-moet-binnen-8-jaar-gehalveerd.html>
- Long read: <https://www.carbonbrief.org/in-depth-qa-the-ipccs-sixth-assessment-on-how-to-tackle-climate-change>
- Summary for Policy Makers, Technical Summary, volledige rapport: <https://www.ipcc.ch/report/ar6/wg3/>

Meer over de haalbaarheid van 2 °C

- Nederlands: <https://www.change.inc/future-leadership/professor-blok-via-ratelmecanisme-op-weg-naar-2-graden-opwarming-38854>
- Engels: <https://kornelisblok.home.blog/2022/08/05/we-are-on-the-way-to-2-c/>

“ The evidence is
clear:
The time for
action is now

ipcc

INTERGOVERNMENTAL PANEL ON climate change

Climate Change 2022

Mitigation of Climate Change



WGIII

Working Group III contribution to the
Sixth Assessment Report of the
Intergovernmental Panel on Climate Change

