



stockholm
exergi

Fabian Levihn

Stockholm Exergi har
två ägare (50 % vardera)



Stockholms
stad

och

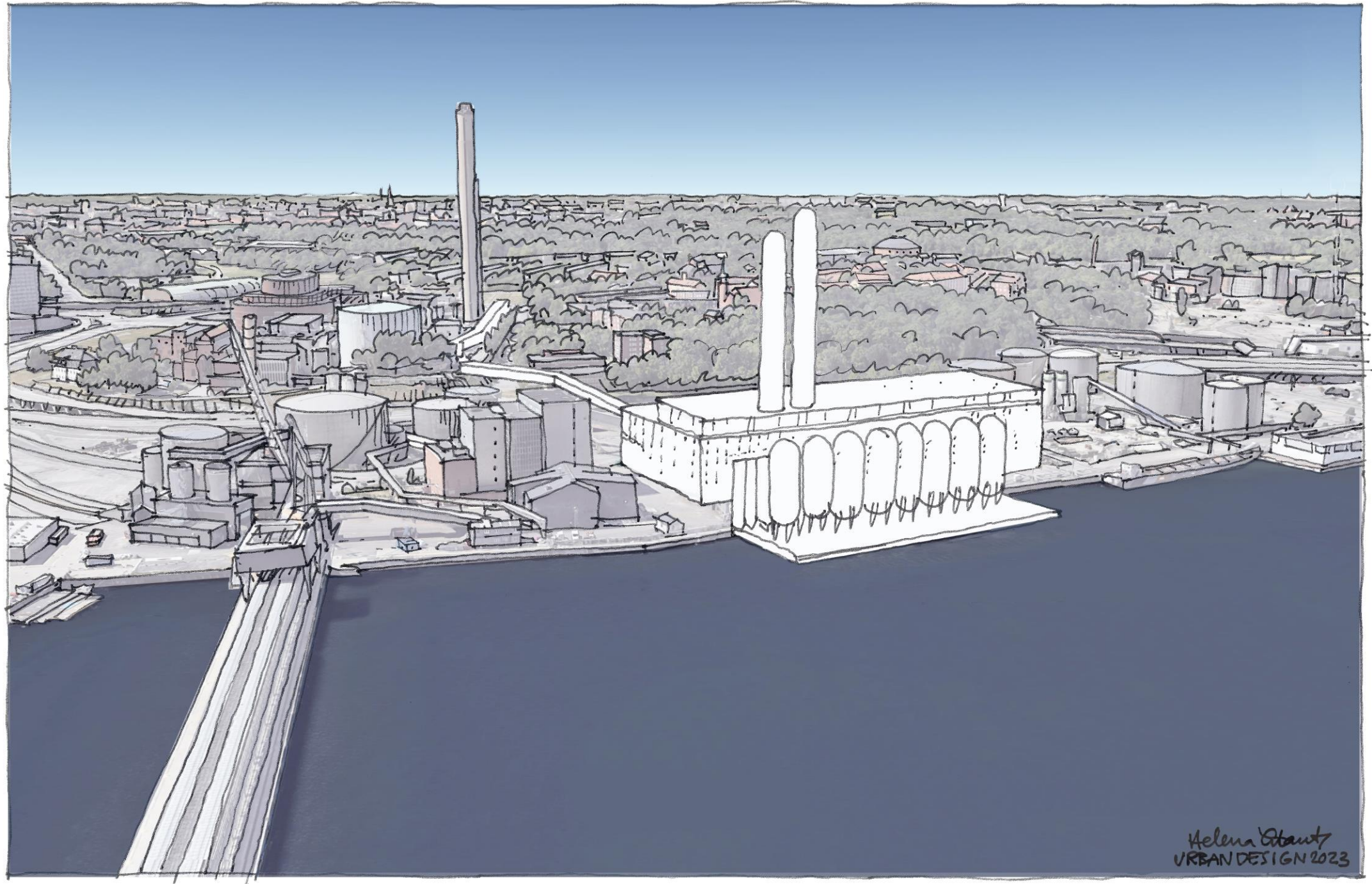
Ankhiale,
som ägs av följande företag:

alecta  **apg**

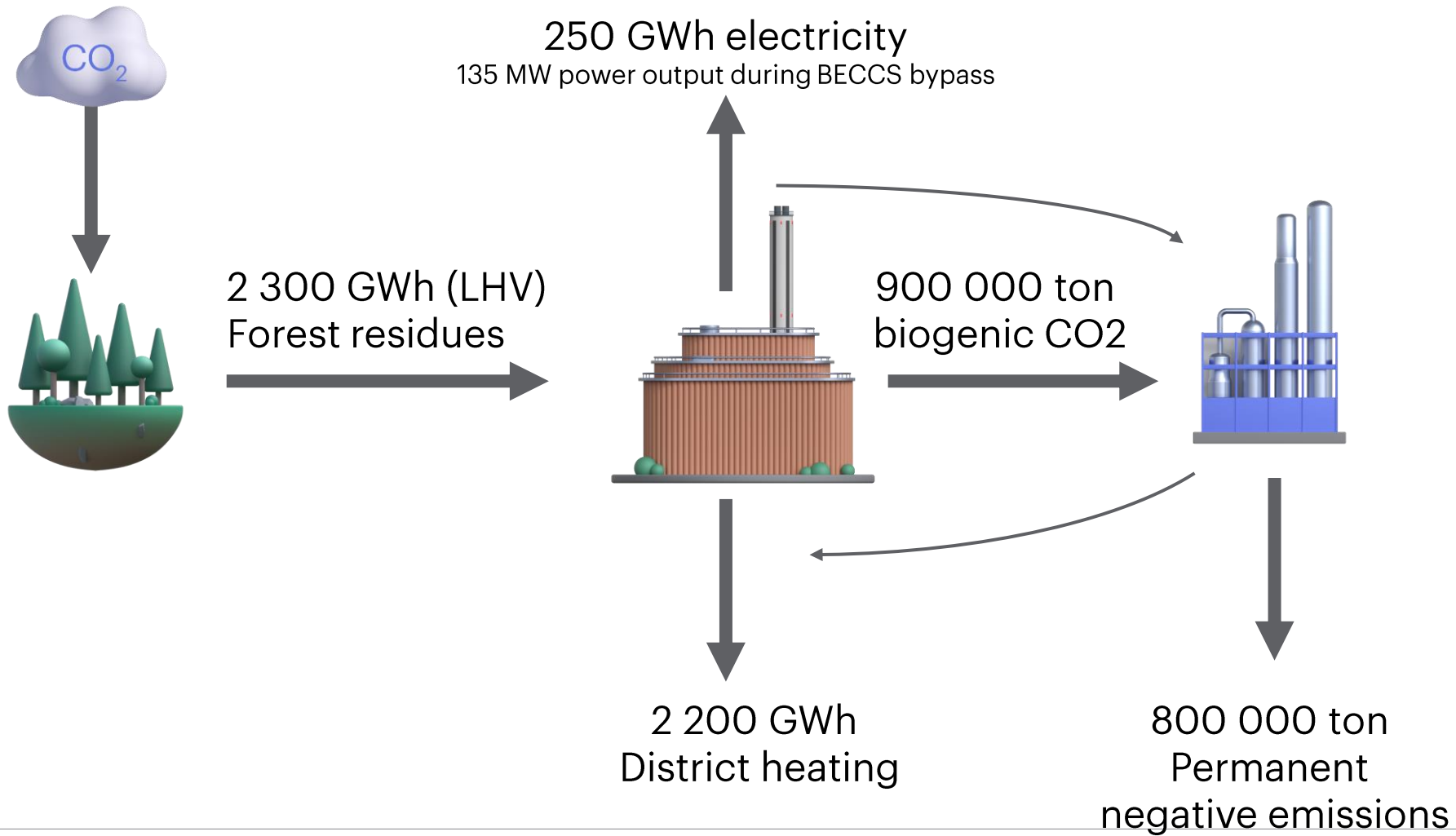
**KE
VA**

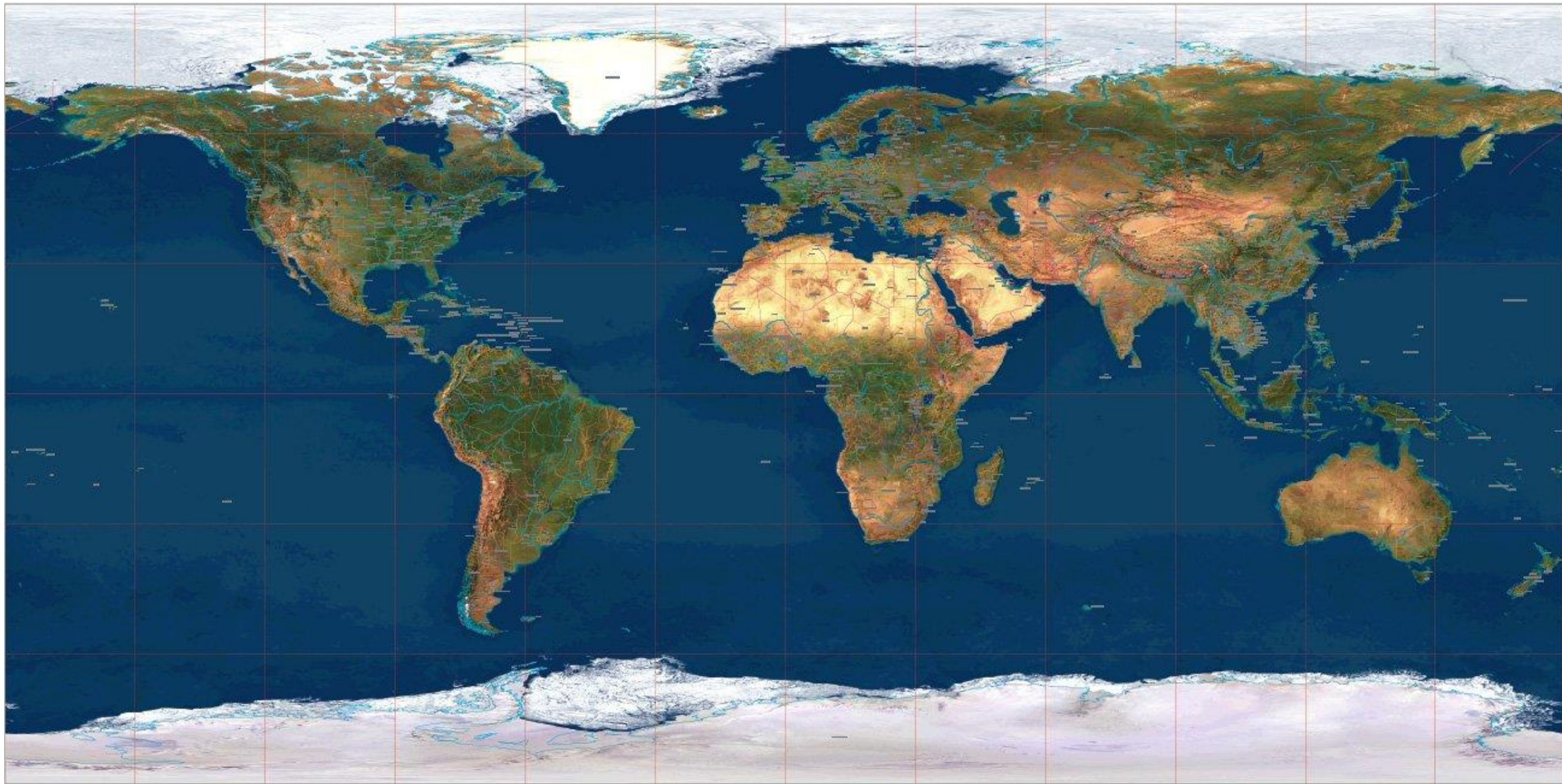

PGGM


AXA



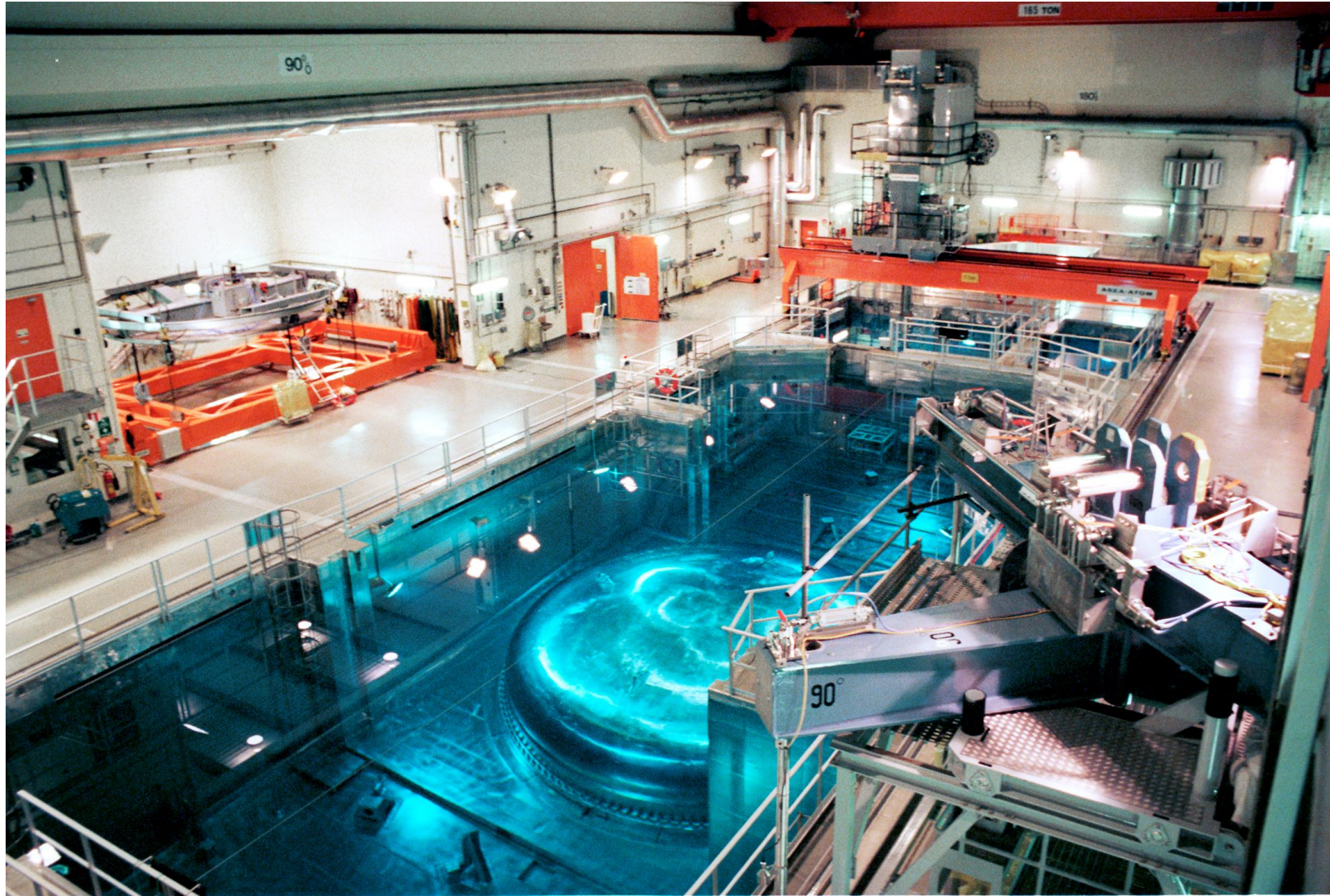
Helena Stautz
URBAN DESIGN 2023





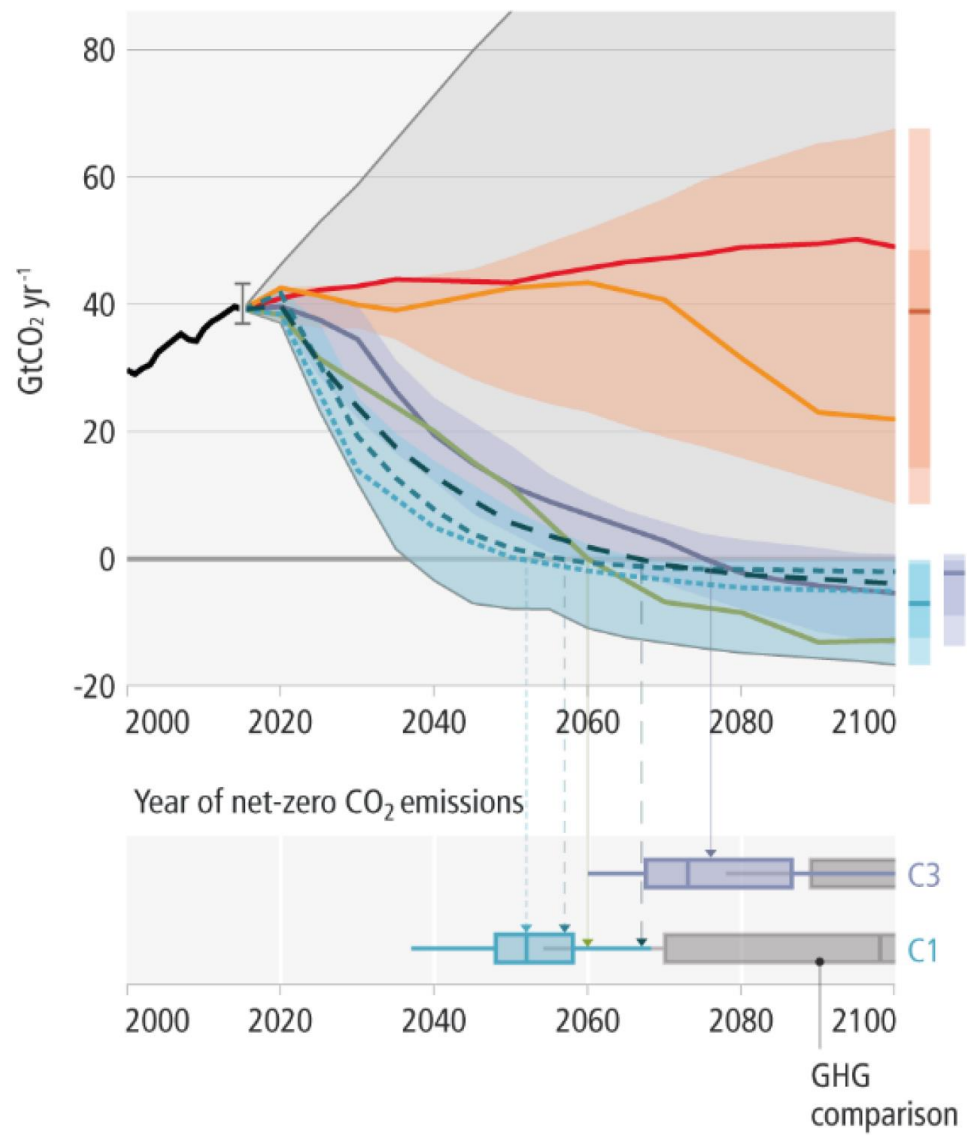








b. Net global CO₂ emissions



BECCS in IPCC AR6

As a median value (5–95% range) across the scenarios likely limiting warming to 2°C or lower, cumulative volumes of BECCS, net CO₂ removal on managed land (including A/R), and DACCS reach 328 (168–763) GtCO₂, 252 (20–418) GtCO₂, and 29 (0–339) GtCO₂ for the 2020-2100 period, with annual volumes at 2.75 (0.52–9.45) GtCO₂ yr⁻¹ for BECCS and 2.98 (0.23–6.38) GtCO₂ yr⁻¹ for the net CO₂ removal on managed land (including A/R), and 0.02 (0–1.74) GtCO₂ yr⁻¹ for DACCS, in 2050. { 12.3, Cross-Chapter Box 8 in this chapter }

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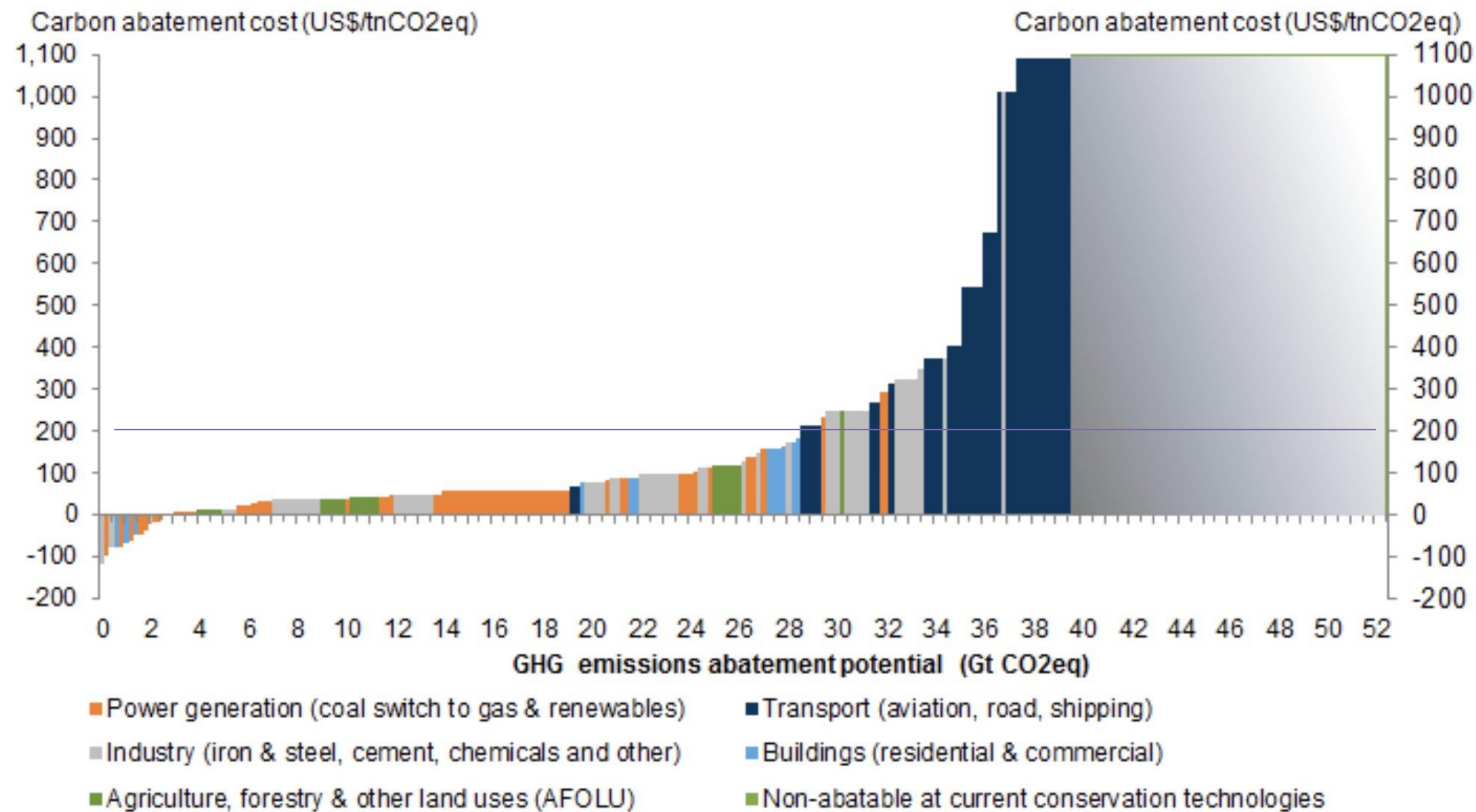
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Global cost curve for reducing GHGs

The Economist feb 2021

Exhibit 7: The Cost Curve of Decarbonization Shows Many Low-Cost Investment Opportunities, but Quickly Becomes Steep



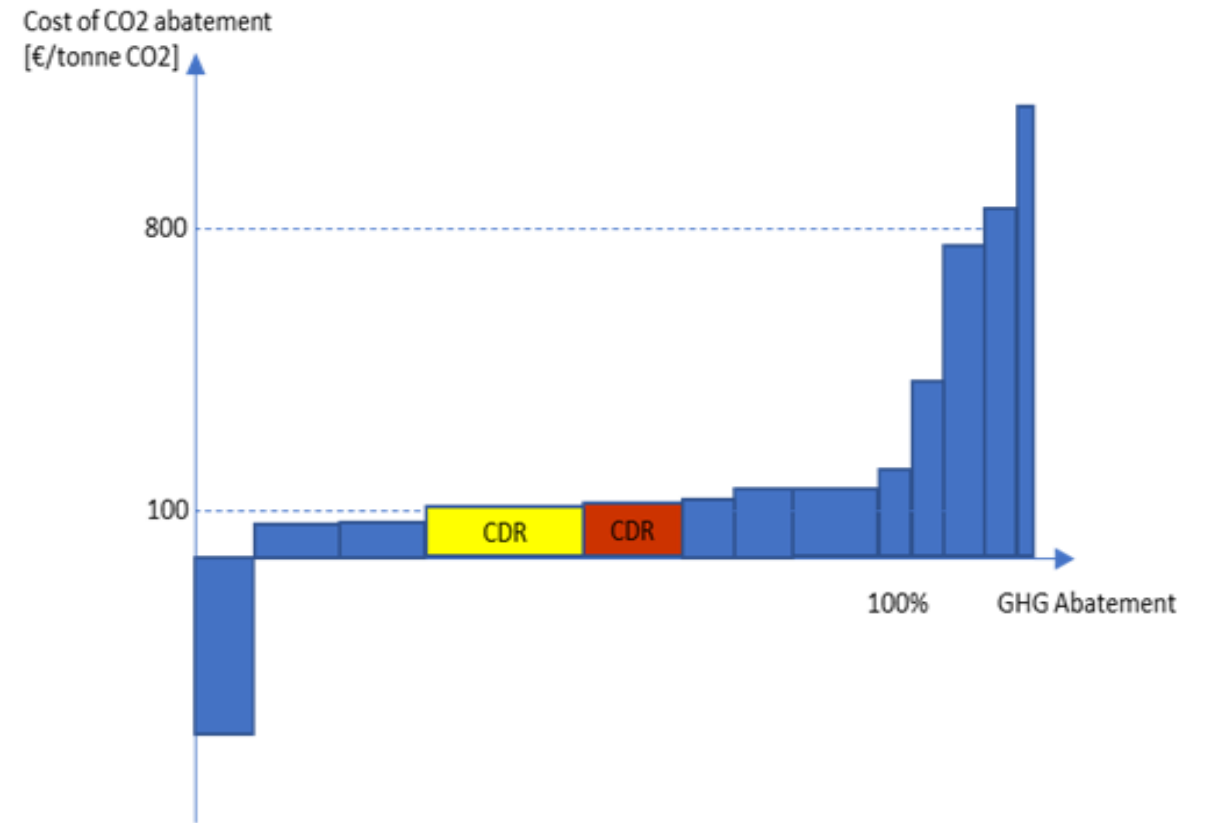
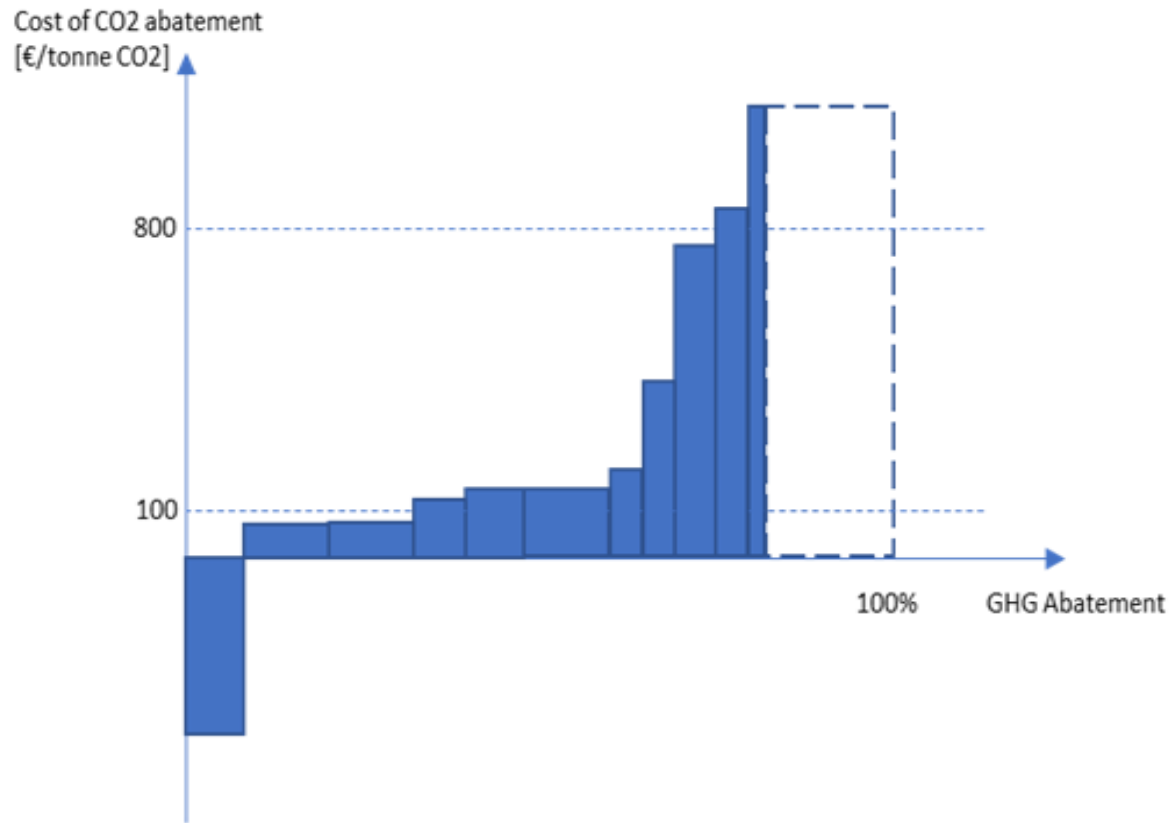
Source: Goldman Sachs Global Investment Research

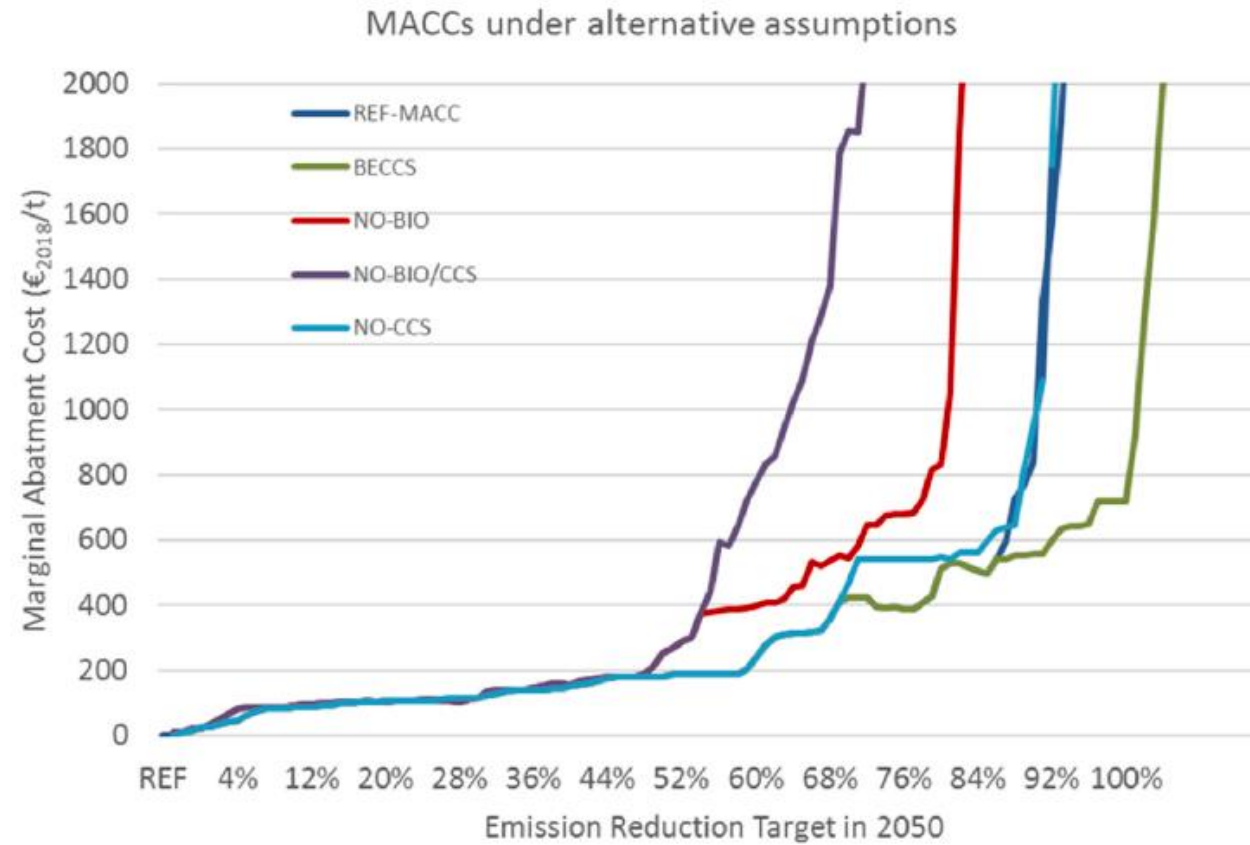
The last 20% of global GHG abatement cost > \$ 800 / tonne or lack alternatives for reduction altogether.

Provides a fundamental demand for CDR

Example: CDR at \$ 200 / tonne reduce cost of reaching abatement target by \$ 600 /tonne

CDR reduce the cost of reaching net zero (schematic)

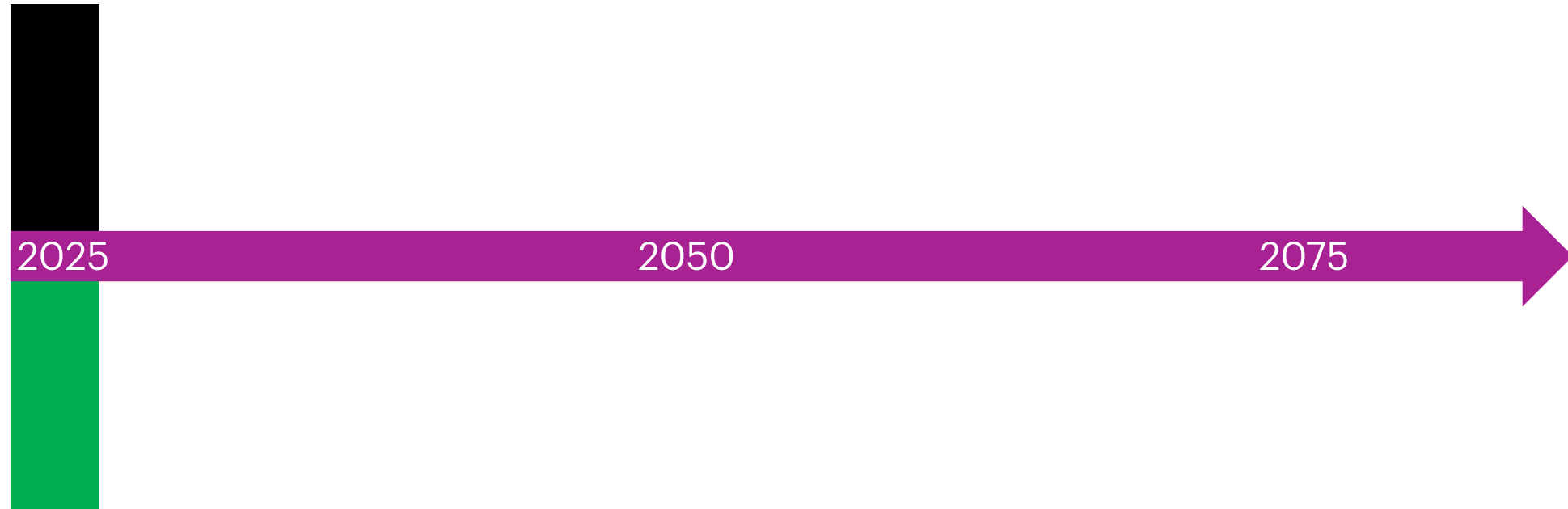




Source: Yue et al 2020, Applied Energy

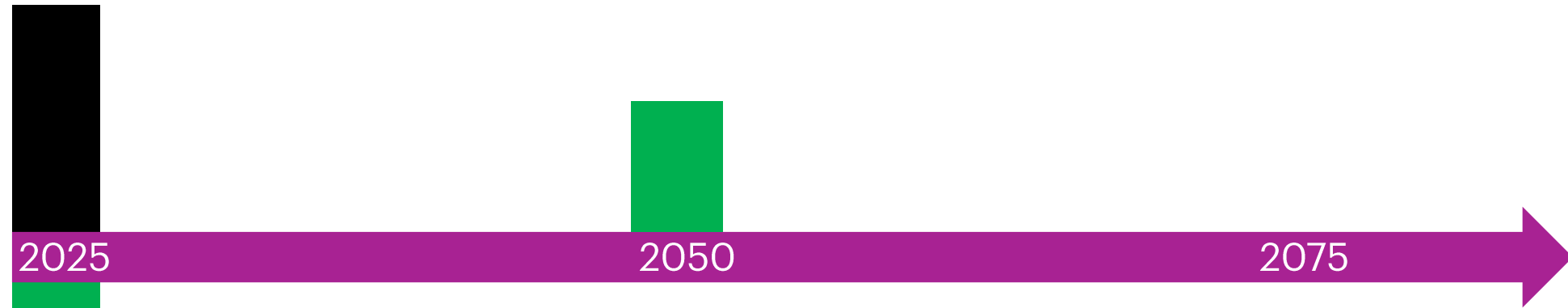
Why is permance important?

BECCUS 25 year halftime



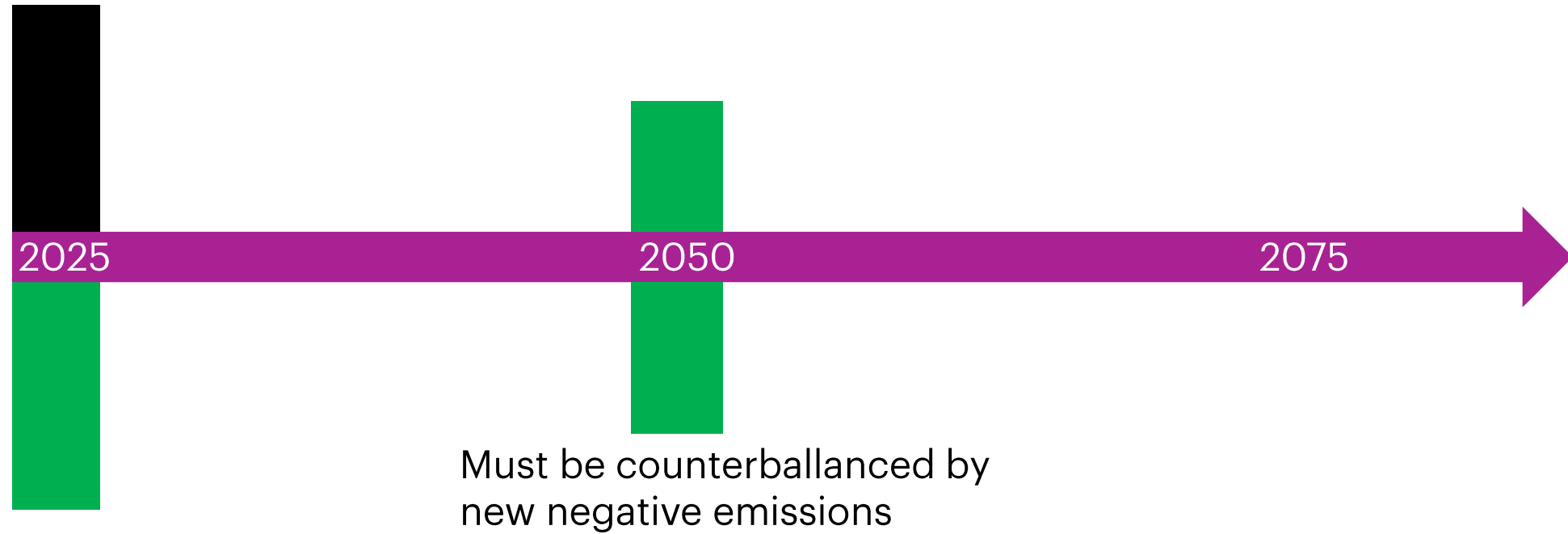
2025 non permanent BECCUS
is used to counterbalance
fossile CO2

BECCUS 25 year halftime

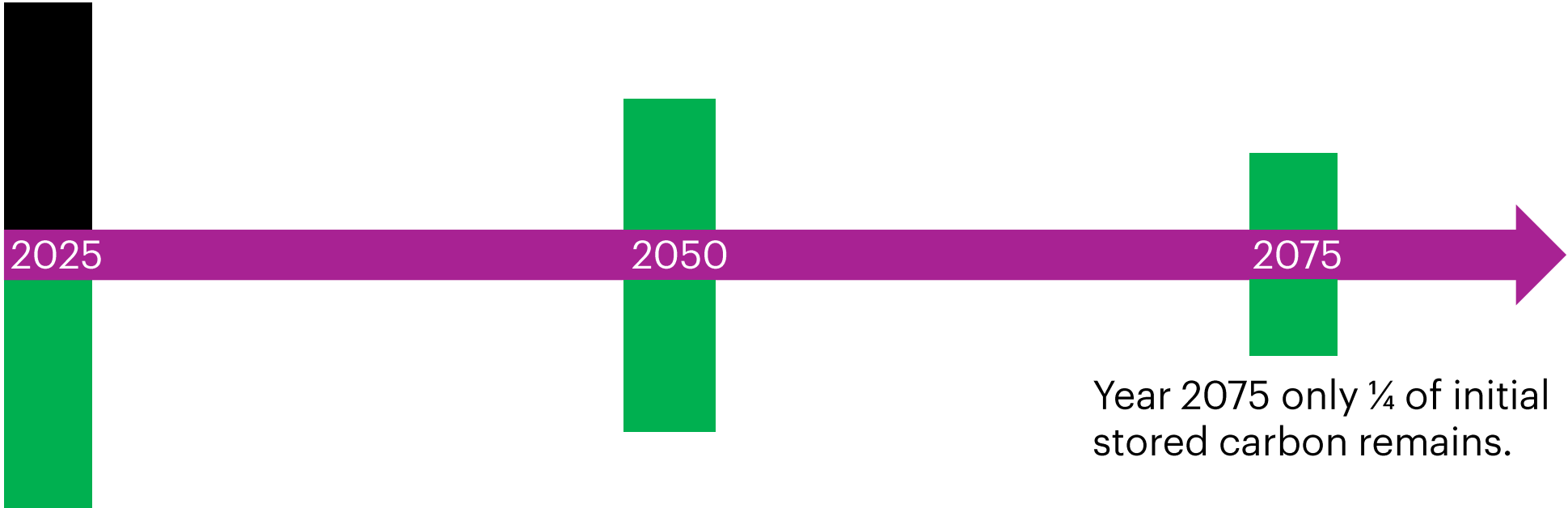


2050 half of the CO2 from
BECCUS has been released
back into the atmosphere

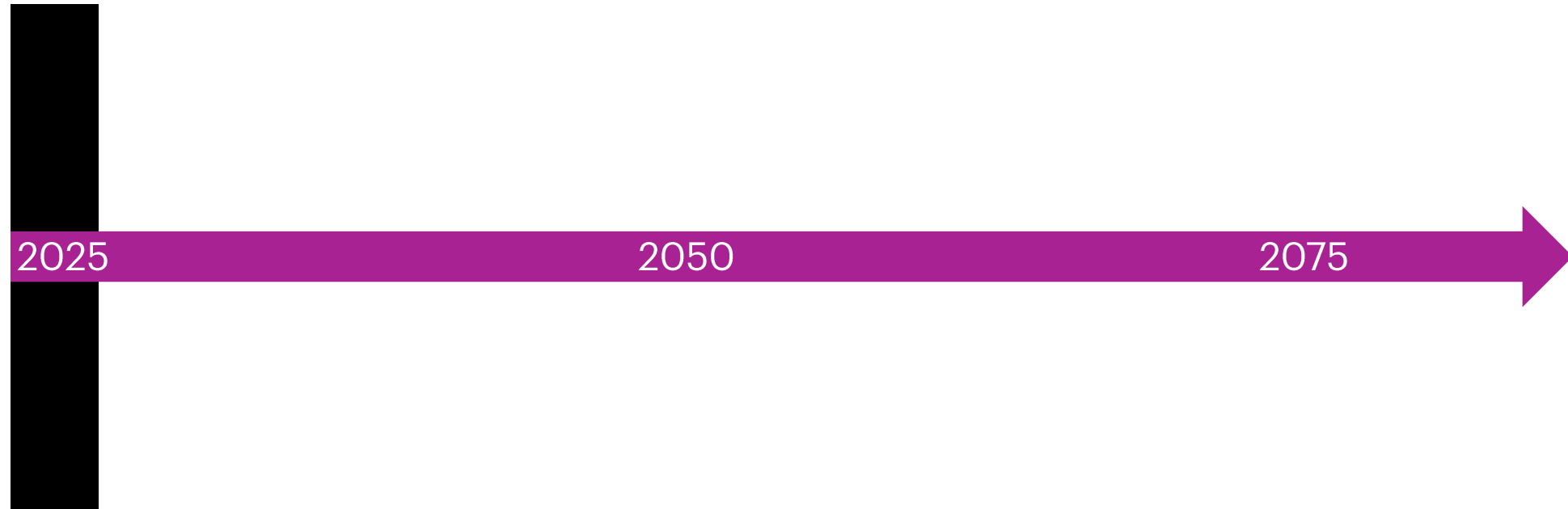
BECCUS 25 year halftime



BECCUS 25 year halftime

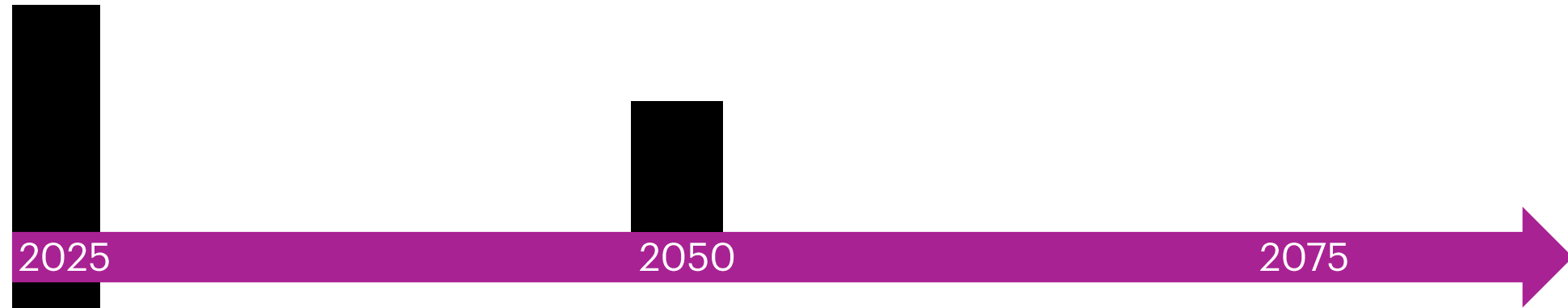


BECCUS 25 year halftime



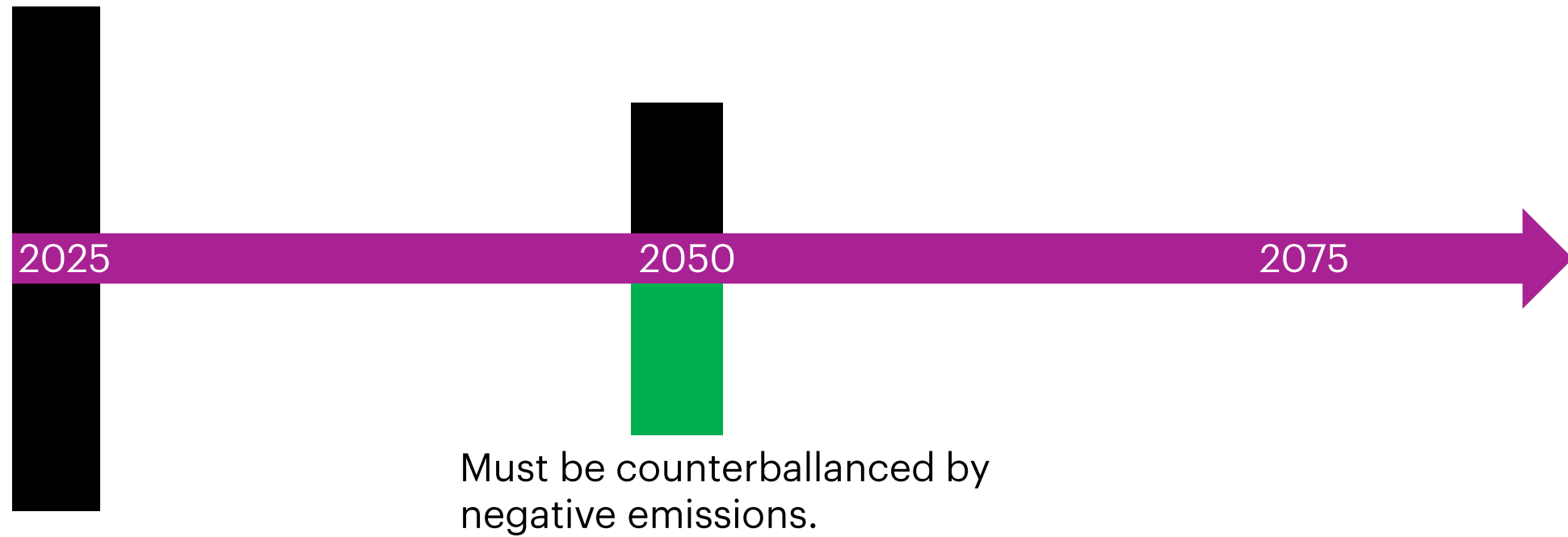
Fossil CO₂ is used in non permanent CCUS application

BECCUS 25 year halftime



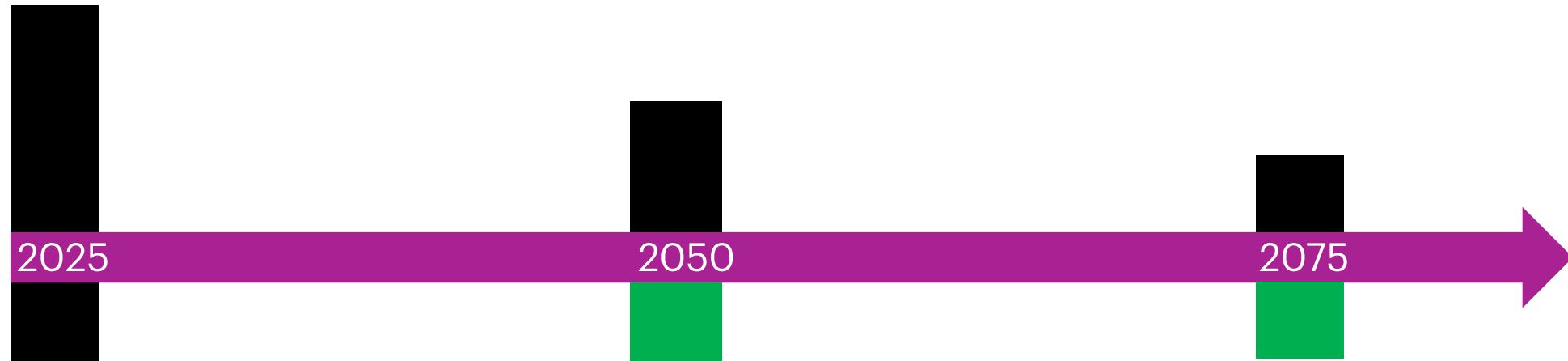
Half of the fossil CO₂ has escaped back into the atmosphere

BECCUS 25 year halftime



Must be counterbalanced by negative emissions.

BECCUS 25 year halftime



$\frac{3}{4}$ of initially stored fossil CO₂ has escaped back to the atmosphere and must be counterballanced

Sammanfattning

- Substitution av fossilt grundläggande för klimatomställningen
- Fossil CCU problematiskt om ej permanent lagring
- Bio baserad CCU bra, men om ej permanent minskar värdet av "kolsänkan"

