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SESSIONE PLENARIA
INTERNAZIONALE

6 novembre 2024

La transizione energetica tra falsi miti e realtà

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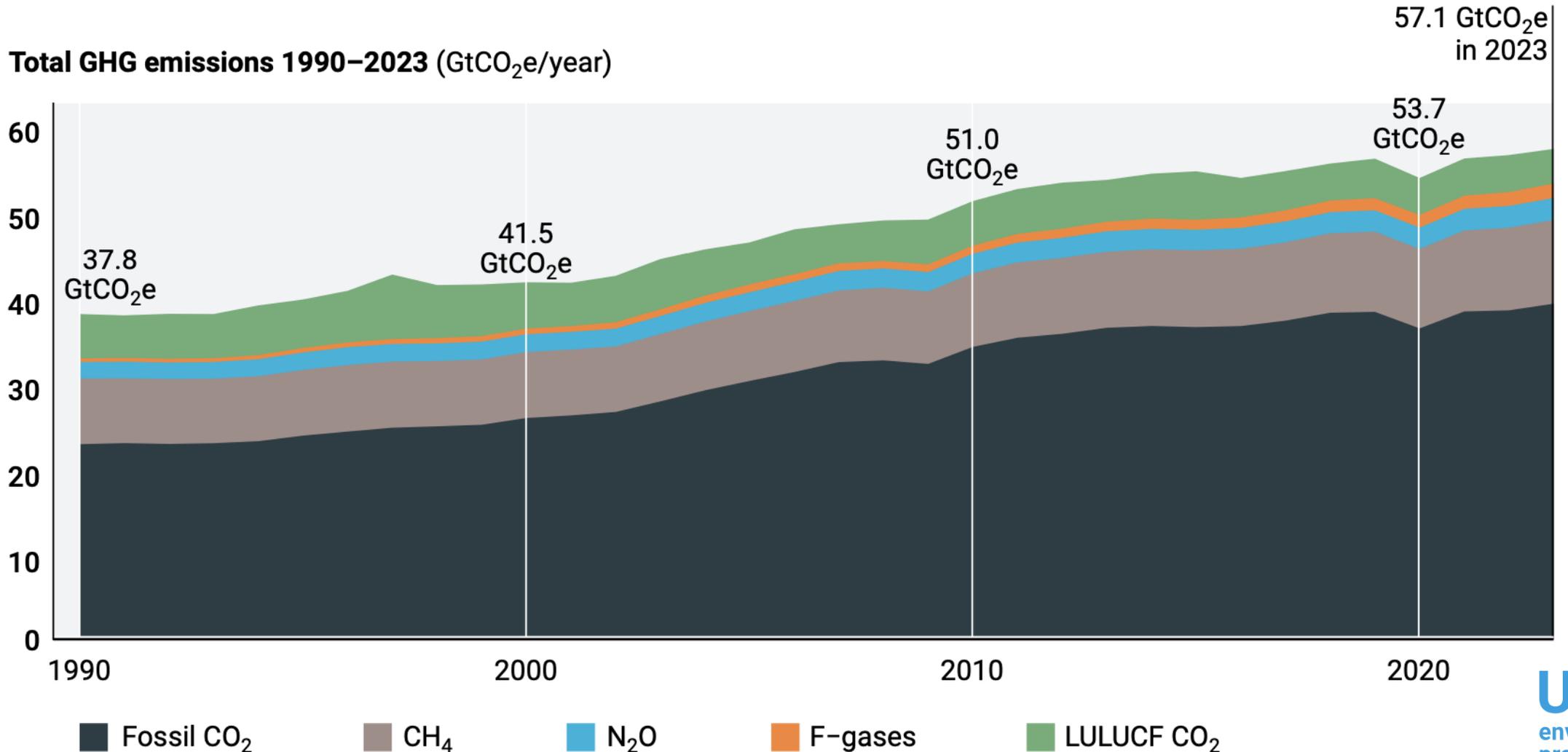
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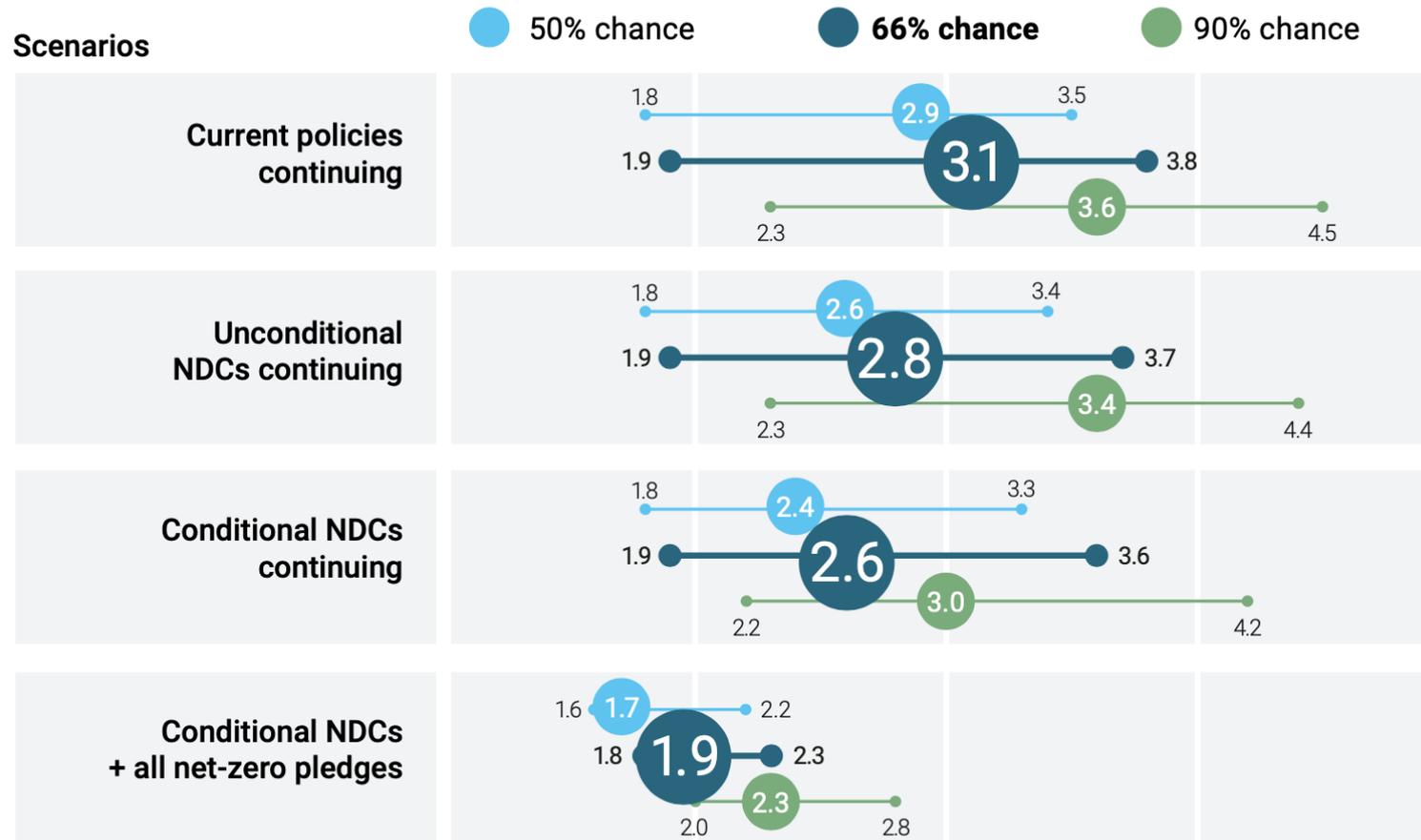
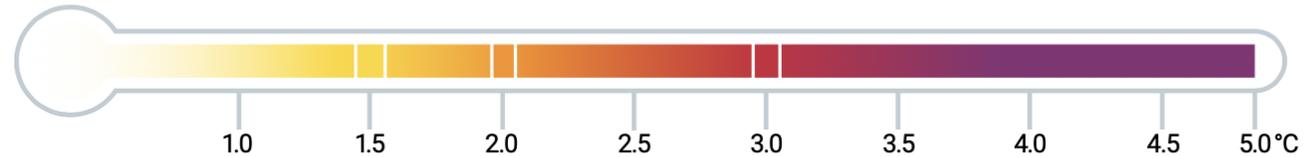
Emissioni 2023: +51% sul 1990, +5% sul 2015

Total GHG emissions 1990–2023 (GtCO₂e/year)

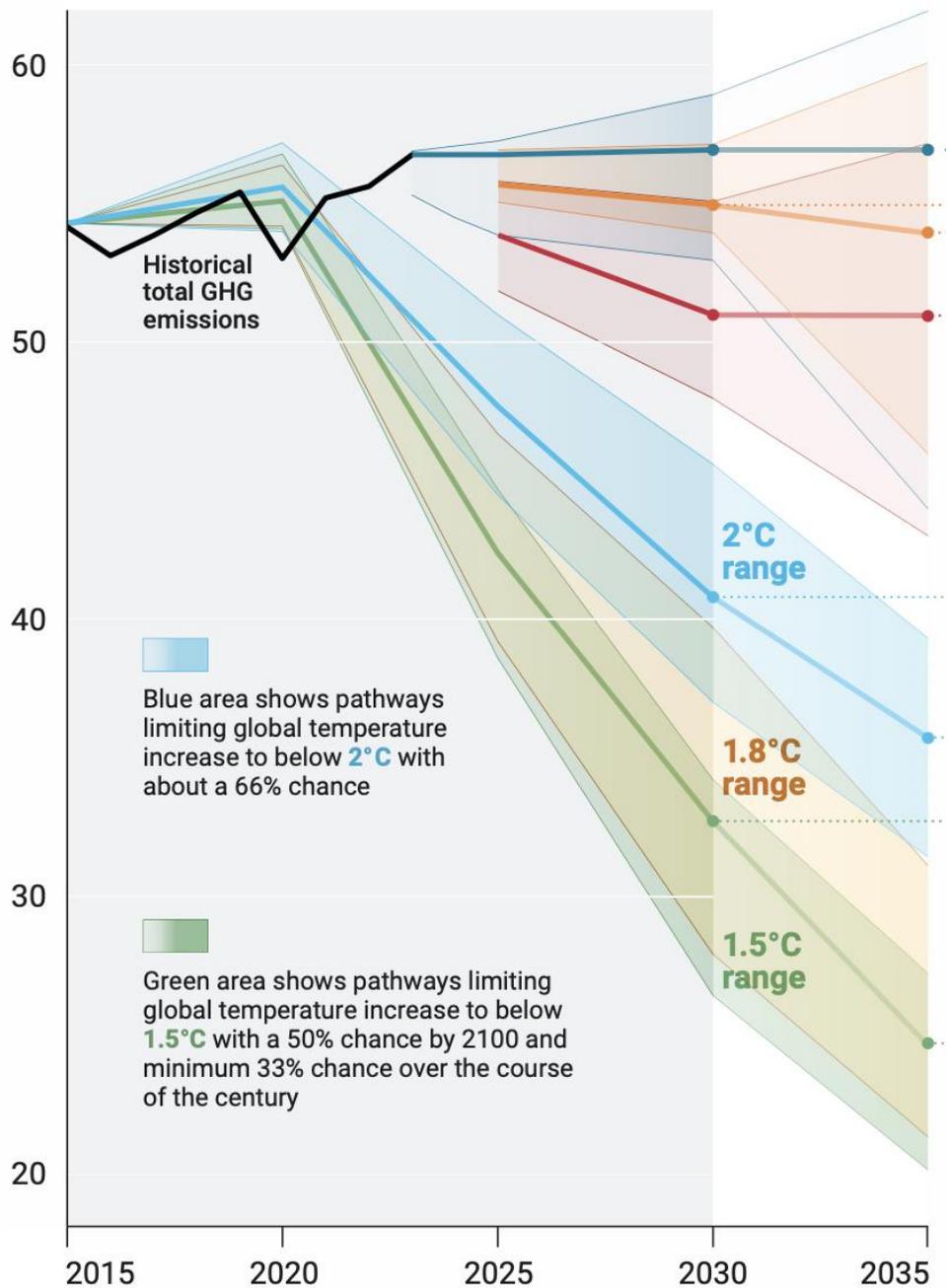


Scenari: verso un mondo a +3 °C

Peak warming over the twenty-first century (°C) relative to pre-industrial levels



GtCO₂e



Emission gap al 2030:

- 11-14 GtCO₂e per il +2 °C
- 19-22 GtCO₂e per il +1,5 °C

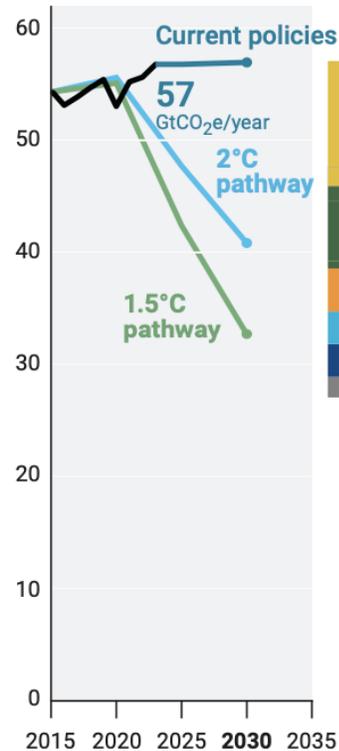
- Current policies scenario
- Unconditional NDC scenario
- Conditional NDC scenario

No more hot air ... please!

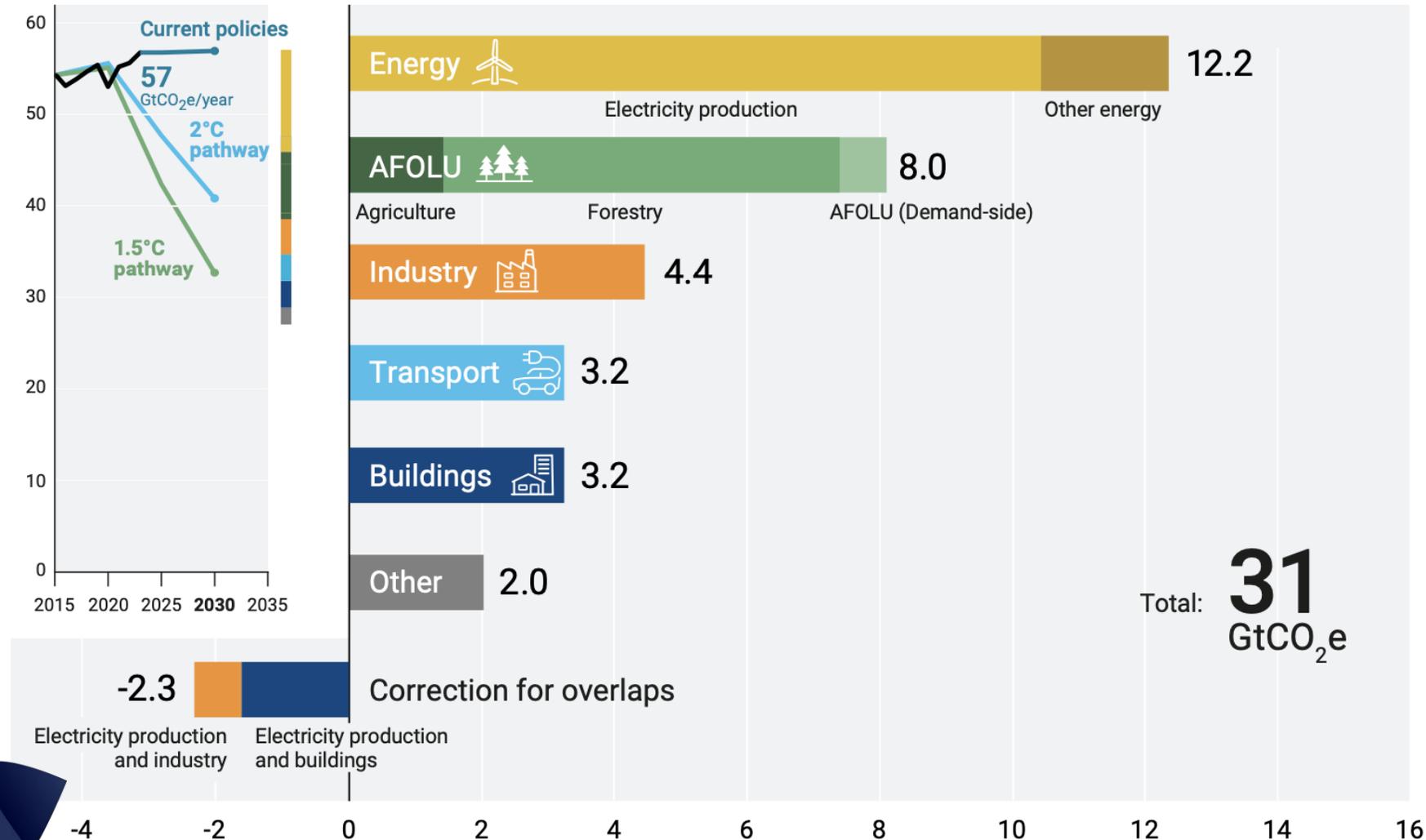
With a massive gap between rhetoric and reality,
countries draft new climate commitments

Good news: oltre la metà o potenziale è di mitigazione attuale è *low cost* (meno di 20\$/tCO₂e)

GtCO₂e



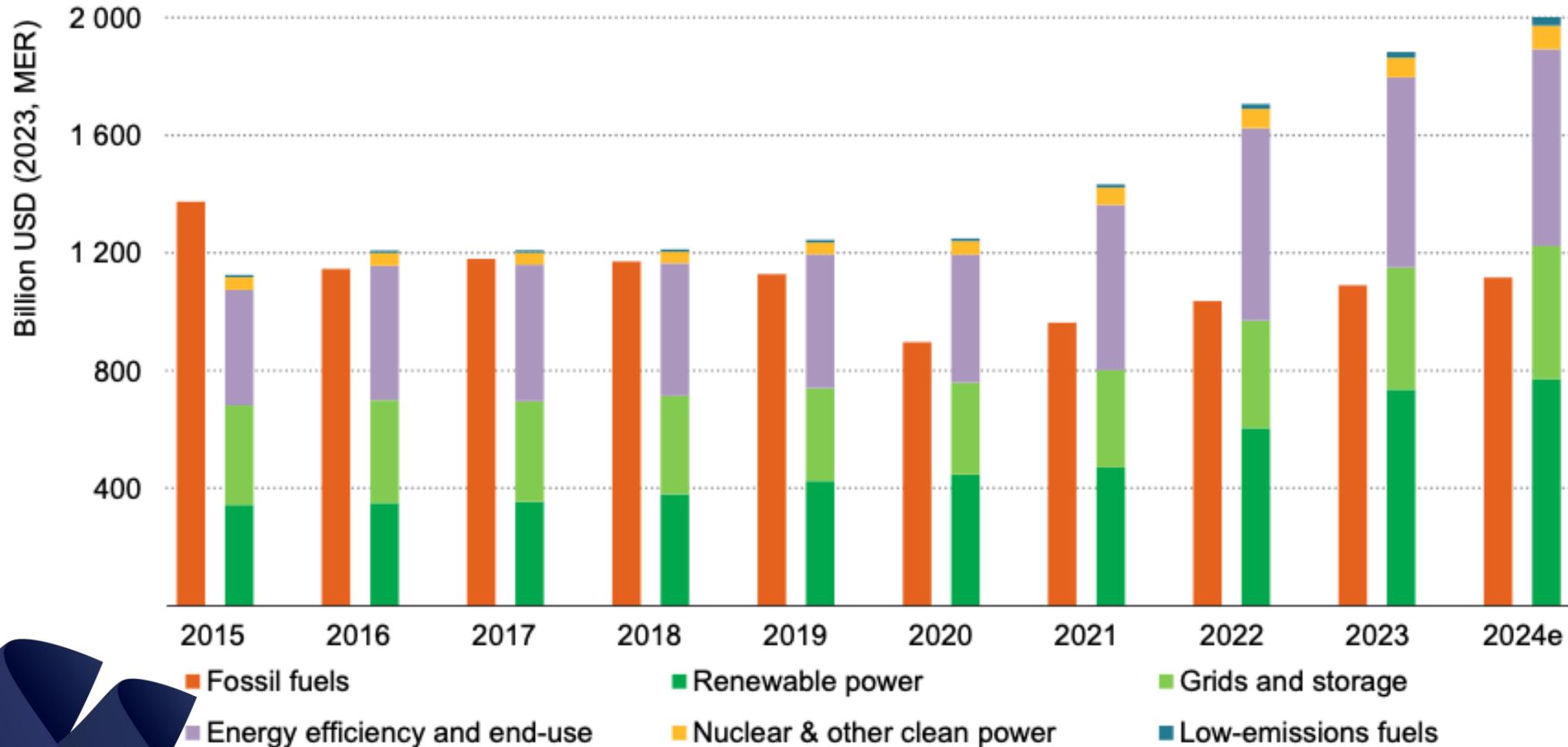
Mitigation potentials 2030 (GtCO₂e)



Signals

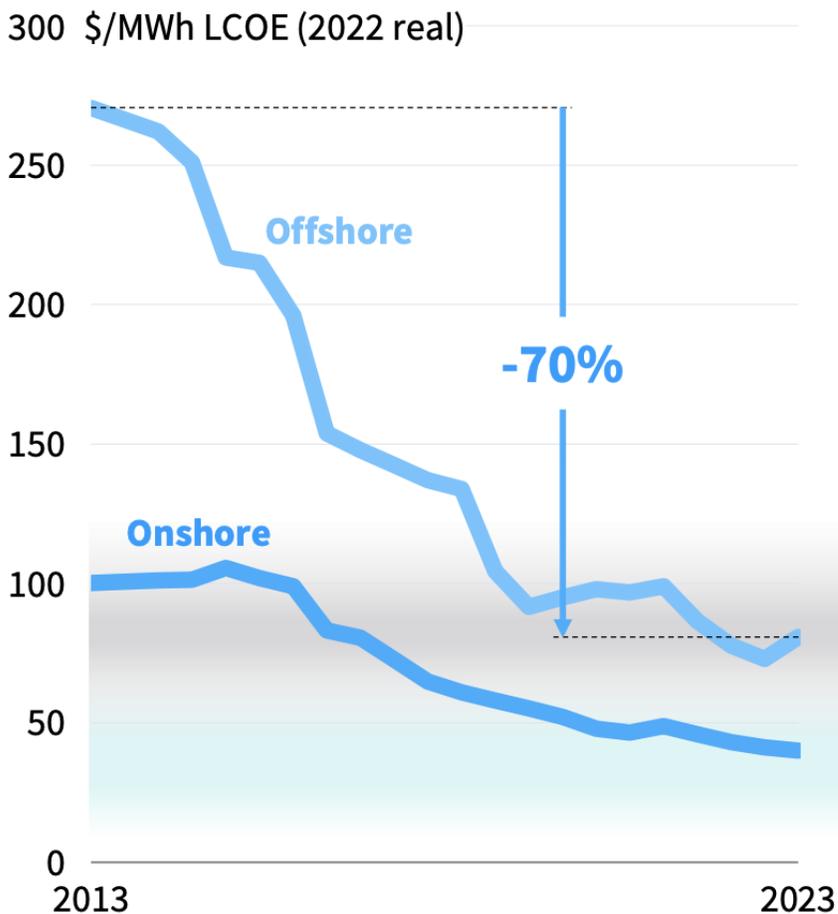
Nel 2024 gli investimenti nell'energia pulita doppiaranno quelli dei fossili

Global investment in clean energy and fossil fuels, 2015-2024e

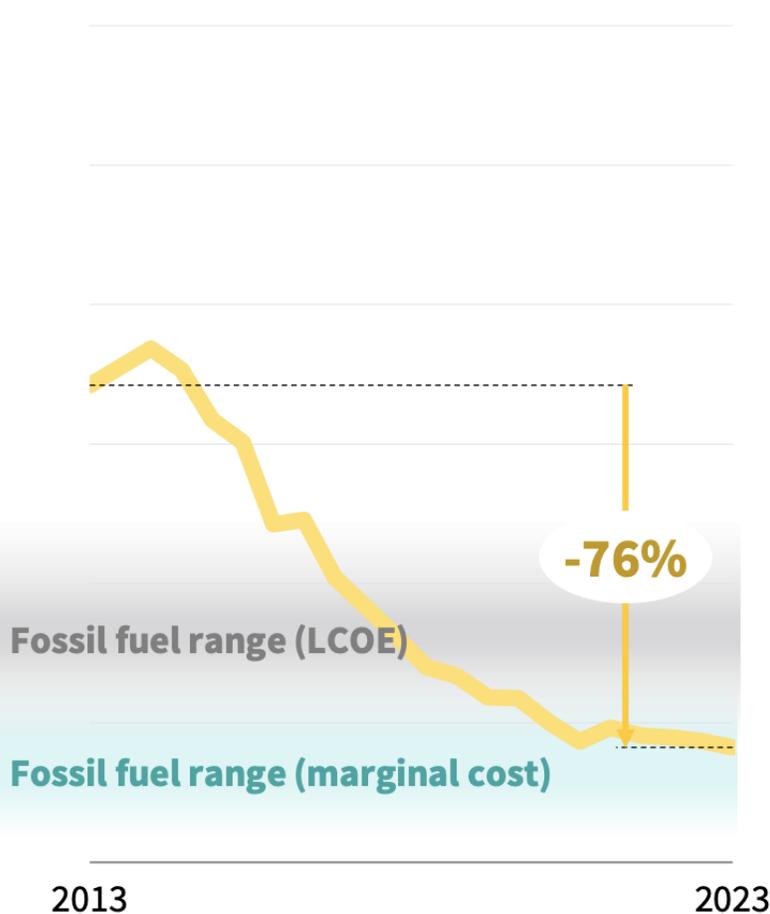


La (dura) legge di Wright: i costi scendono di circa il 20% ogni raddoppio di produzione

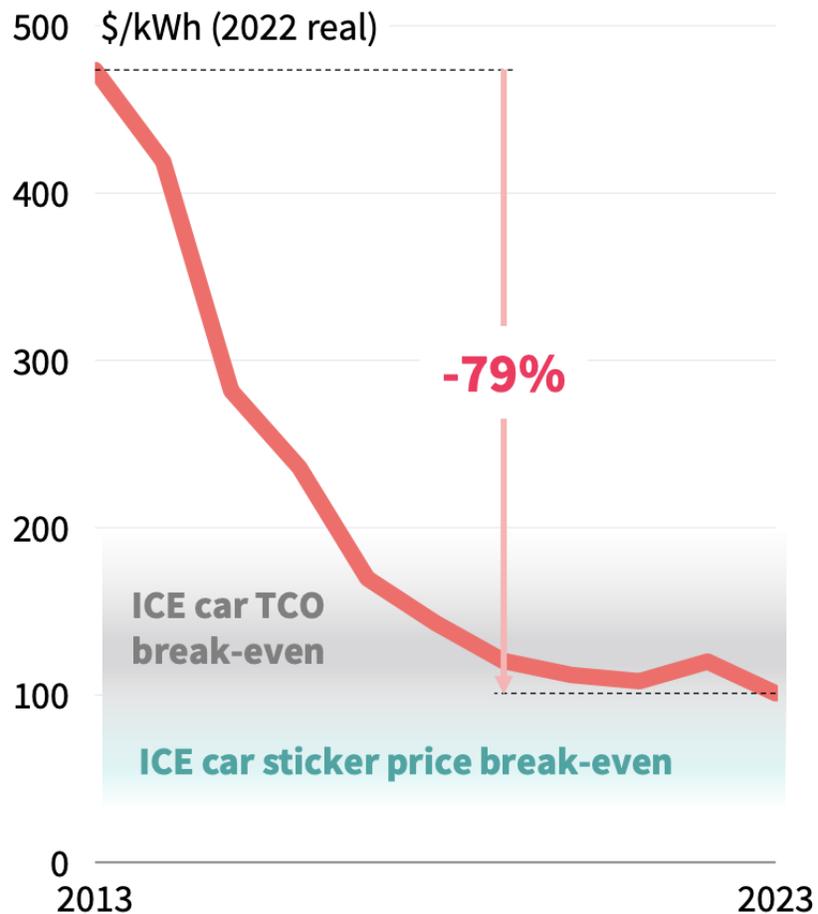
Wind



Solar



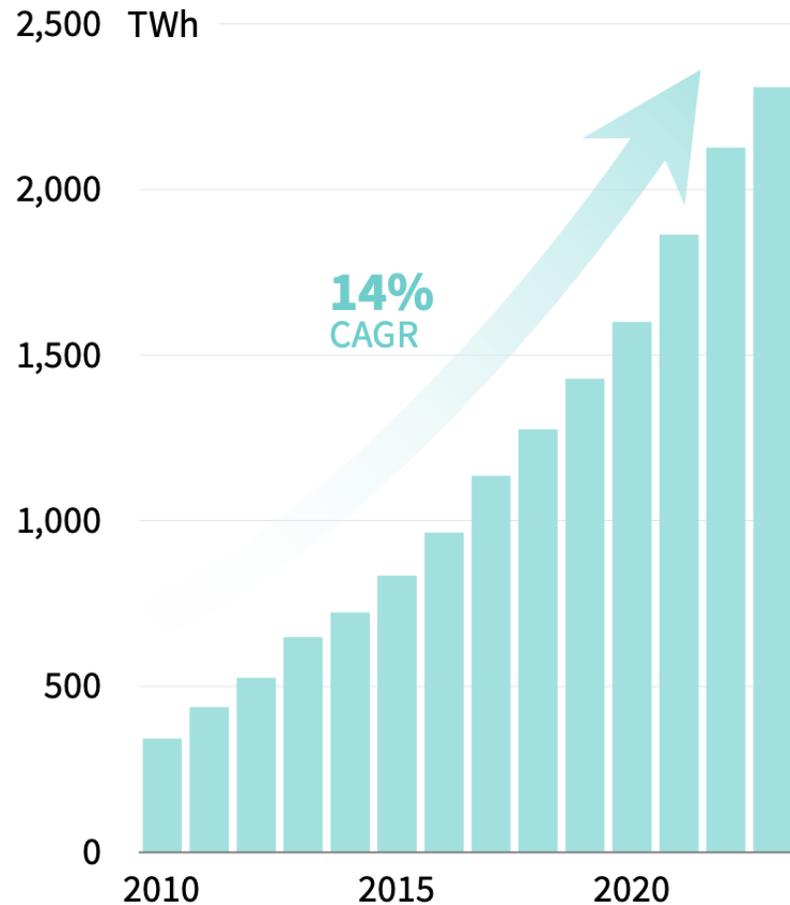
Battery costs



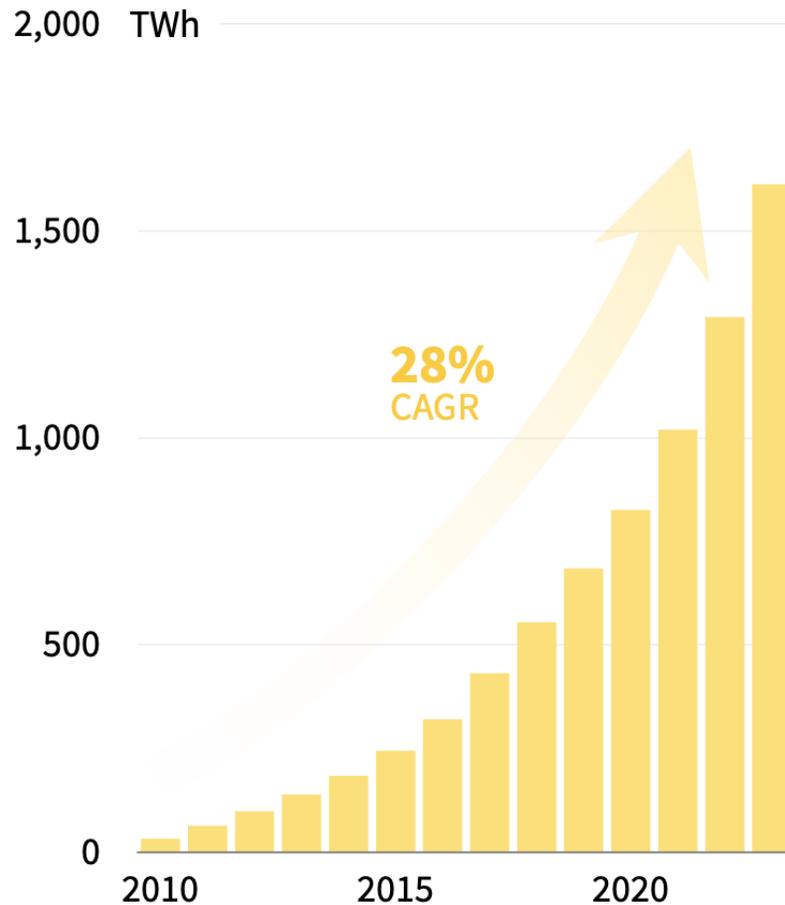
Exponential growth!

Il FV raddoppia ogni 2-3 anni e gli accumuli ogni 1, ma...

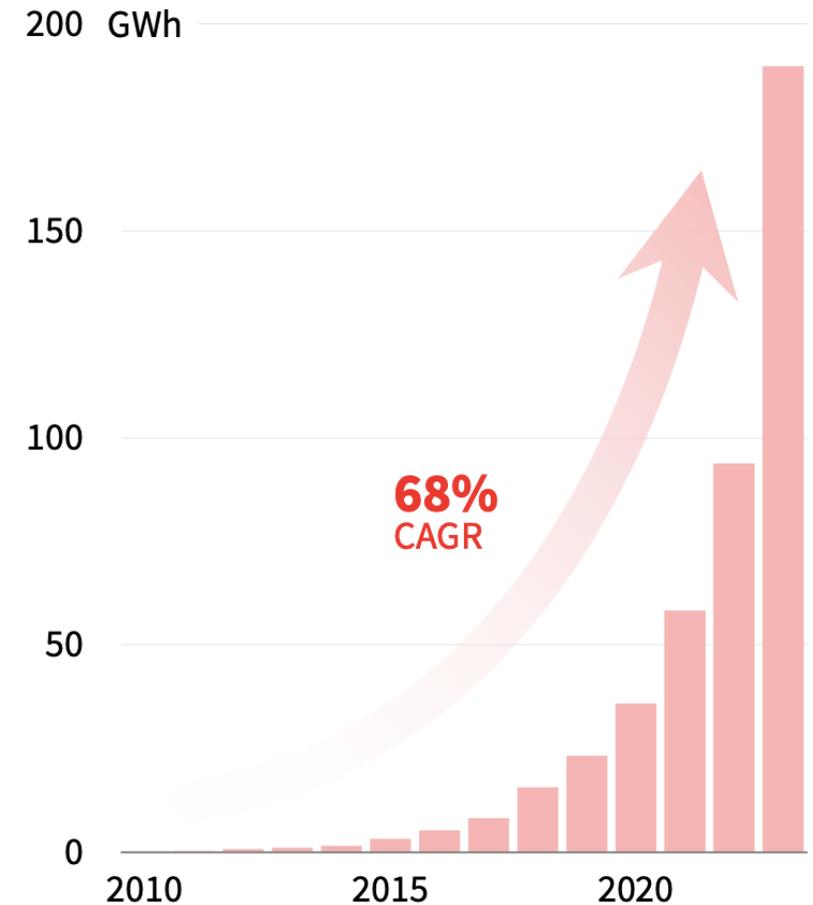
Wind generation



Solar generation

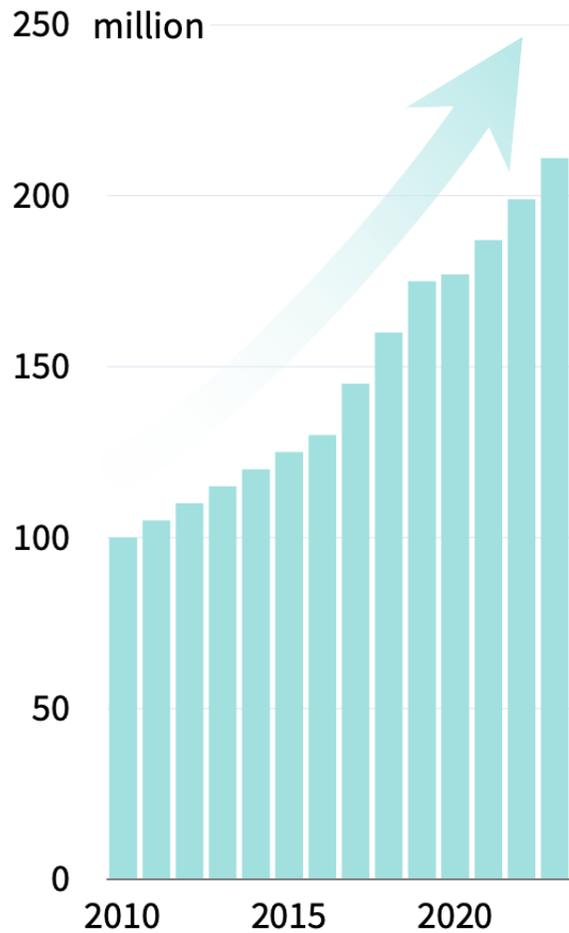


Battery storage

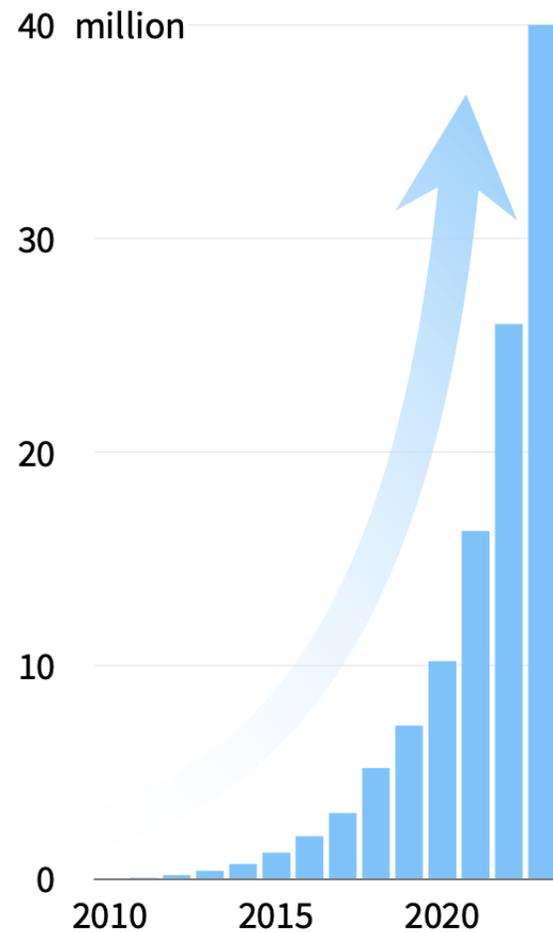


...non è solo rinnovabili!

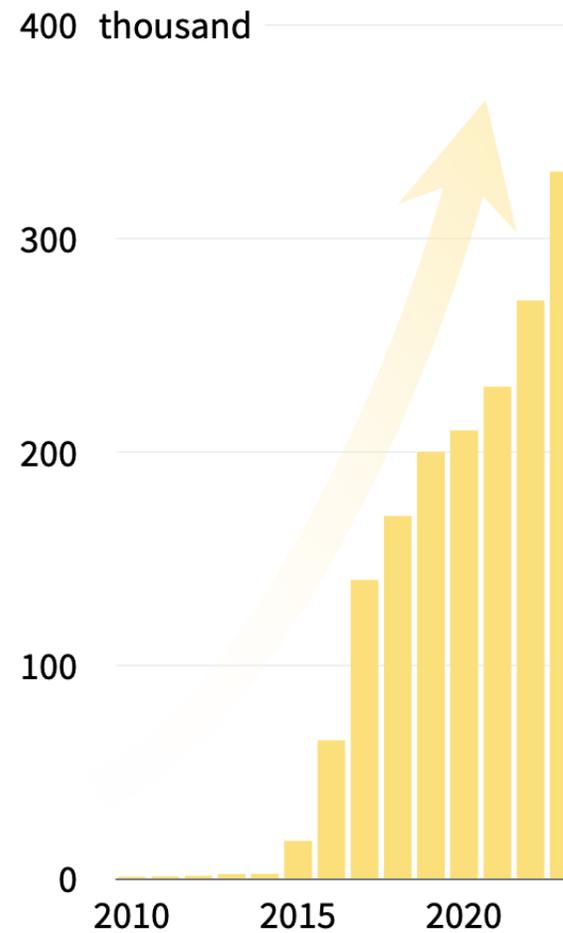
Heat pumps



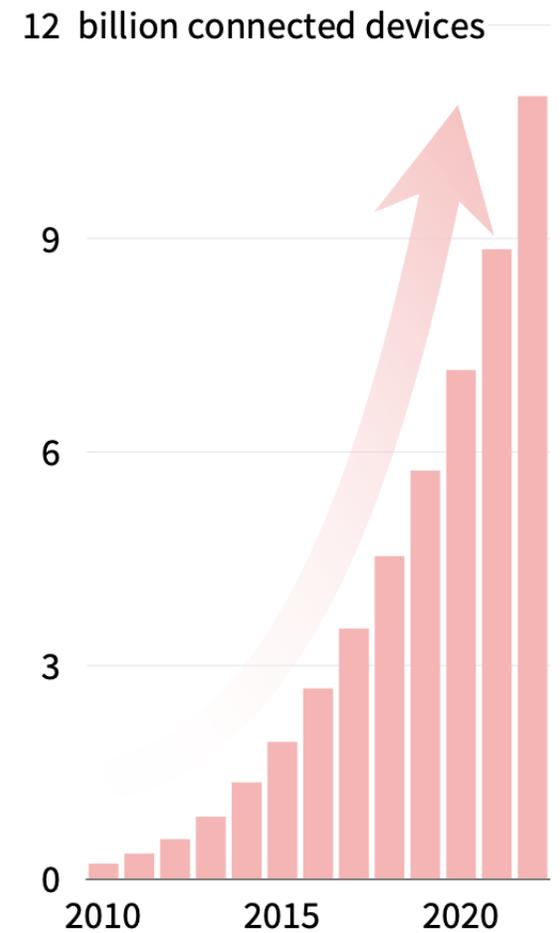
EV cars



EV trucks

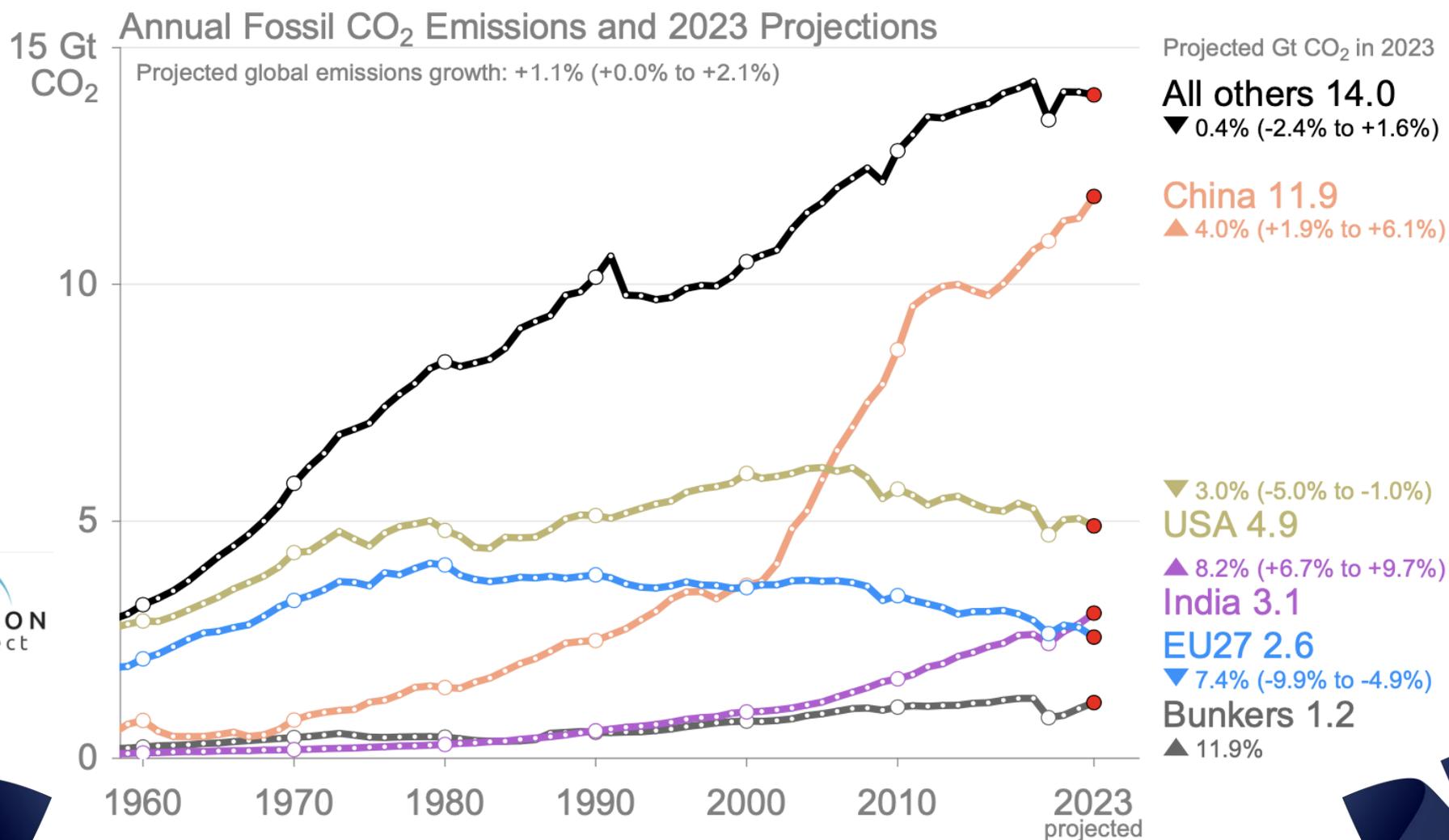


Digitally enabled automated devices



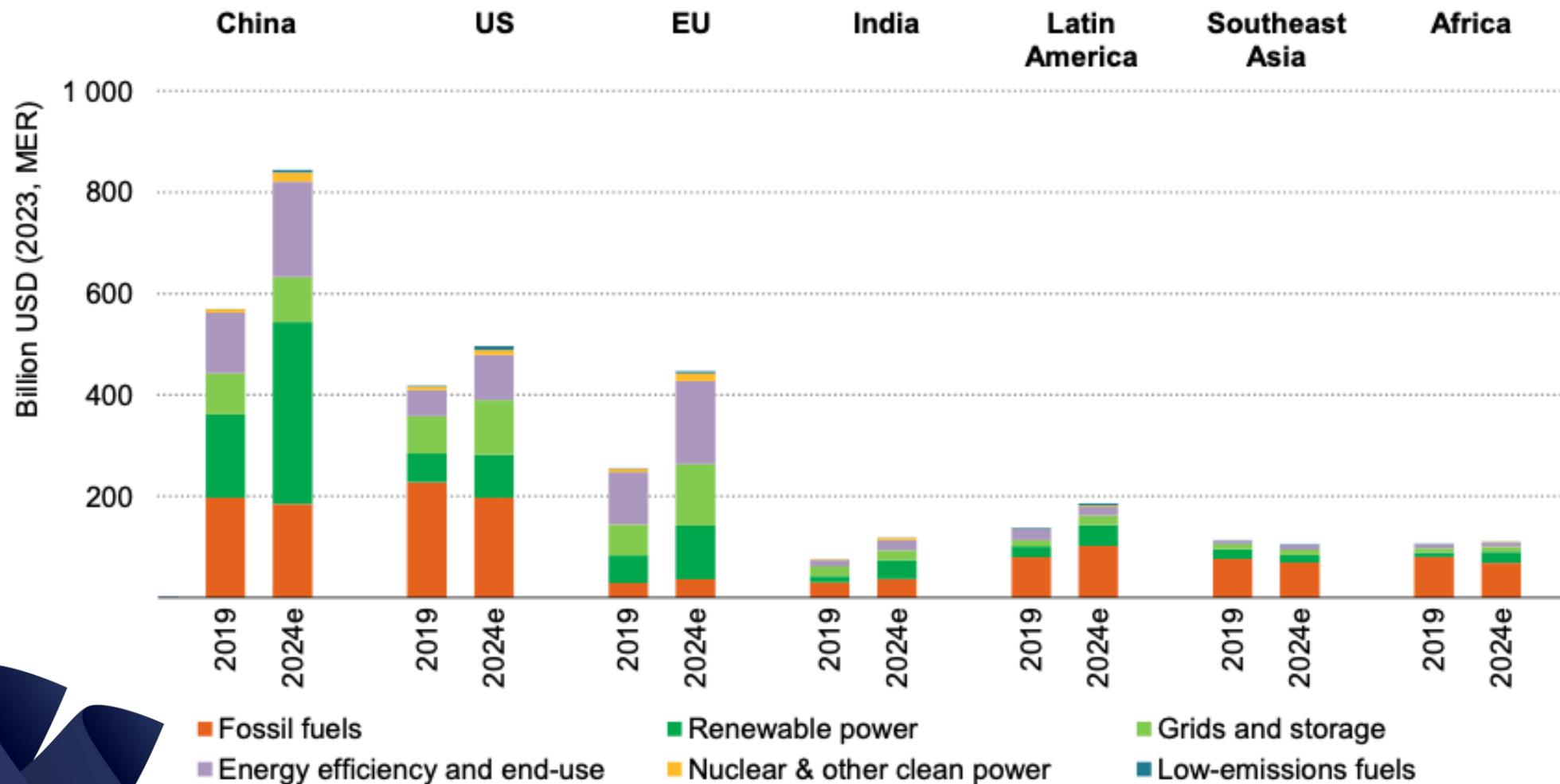
Actors

Cina, Usa, India e UE27 responsabili del 60% delle emissioni globali, ma con dinamiche molto diverse



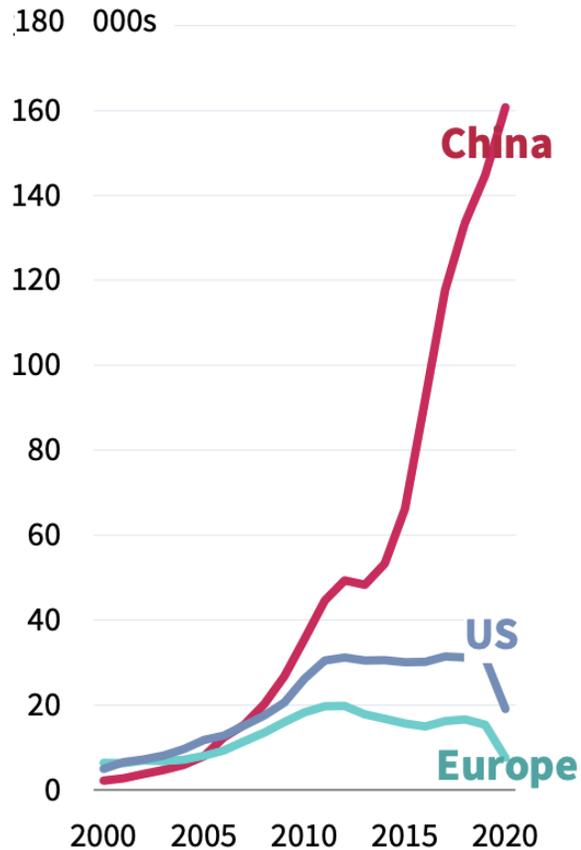
Cambia anche anche la geografia degli investimenti...

Annual energy investment by selected country and region, 2019 and 2024e

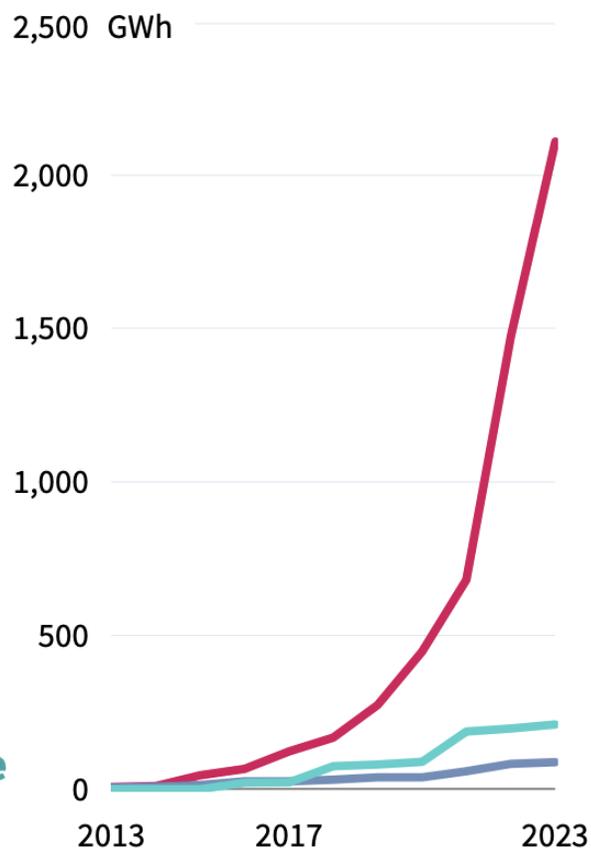


...e la Cina domina il mercato mondiale della transizione energetica

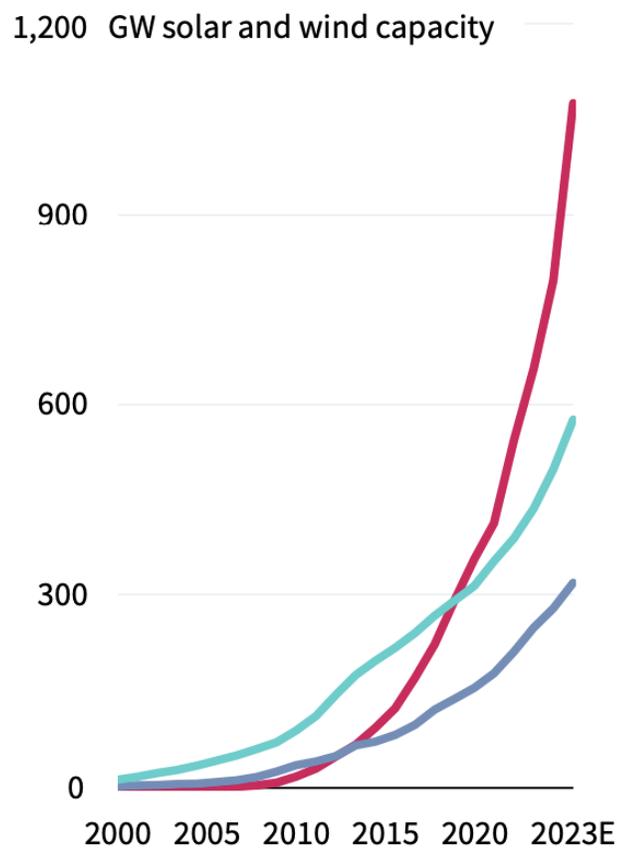
Clean energy patents



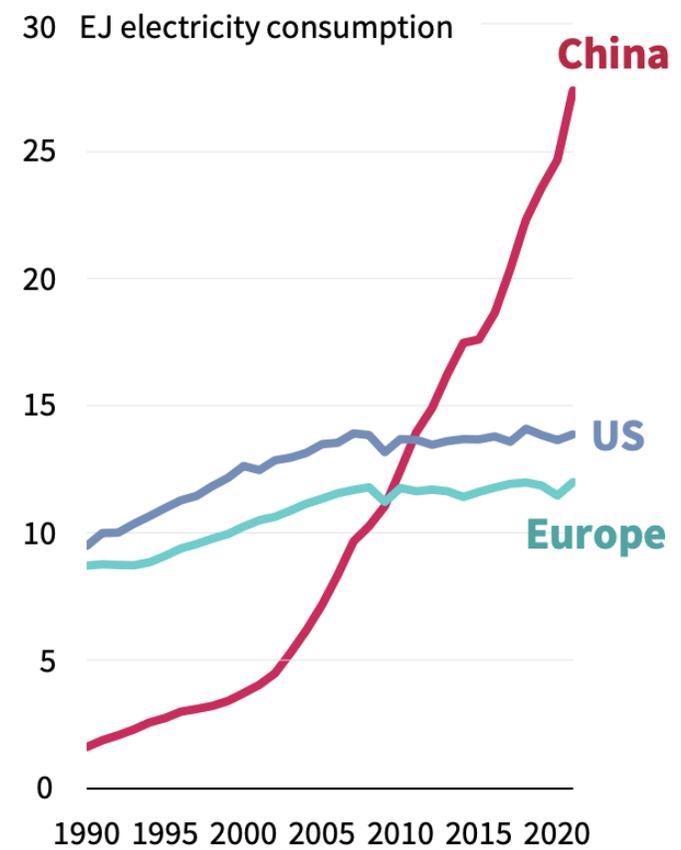
Battery manufacturing capacity



Renewables

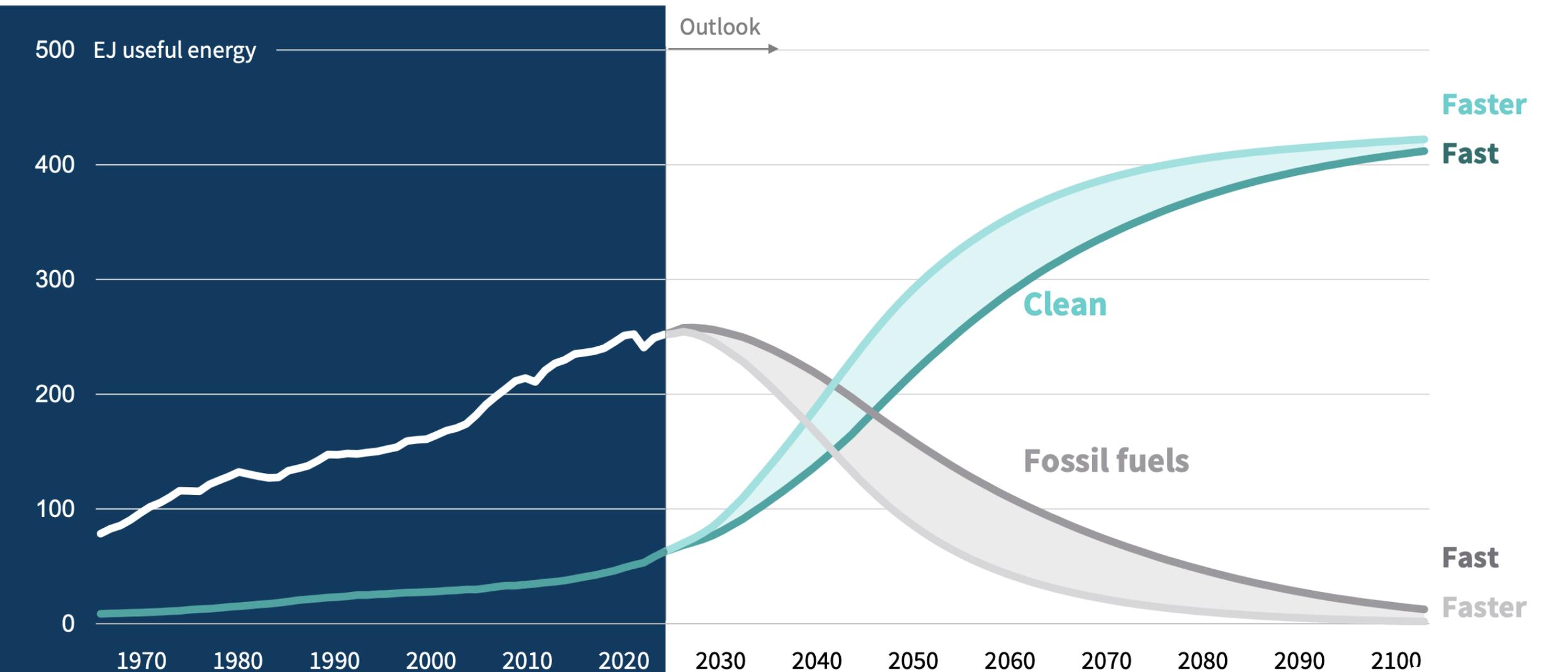


Electrification



X Factor

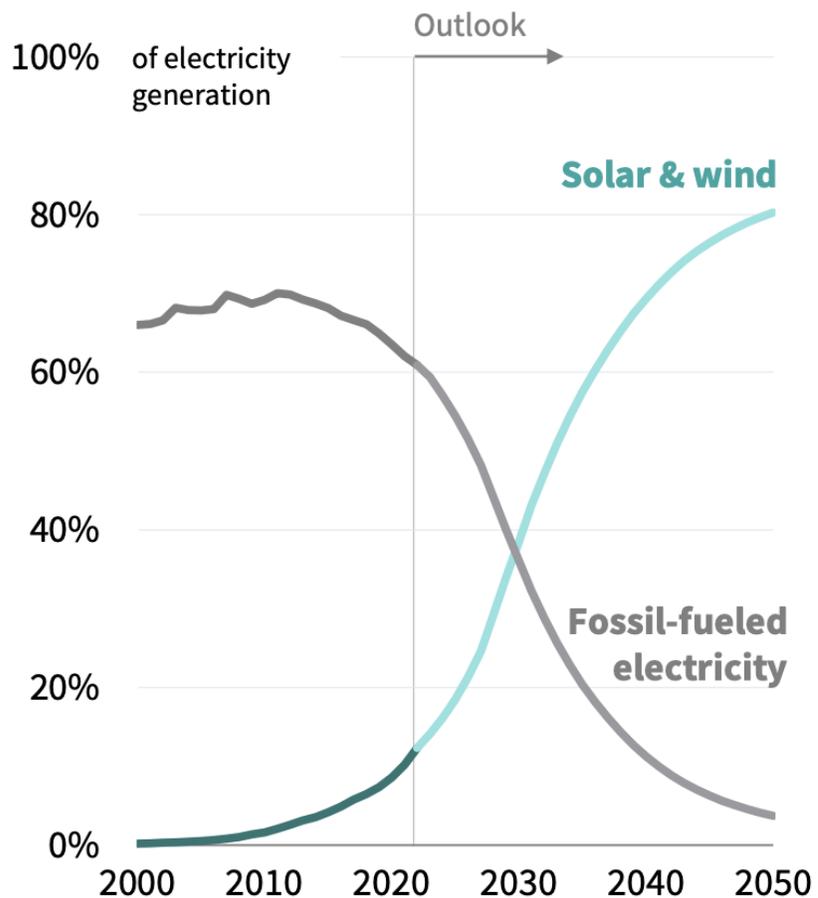
Per vincere la sfida del clima il mondo deve fare una inversione ad X



Anzi, molto più di una

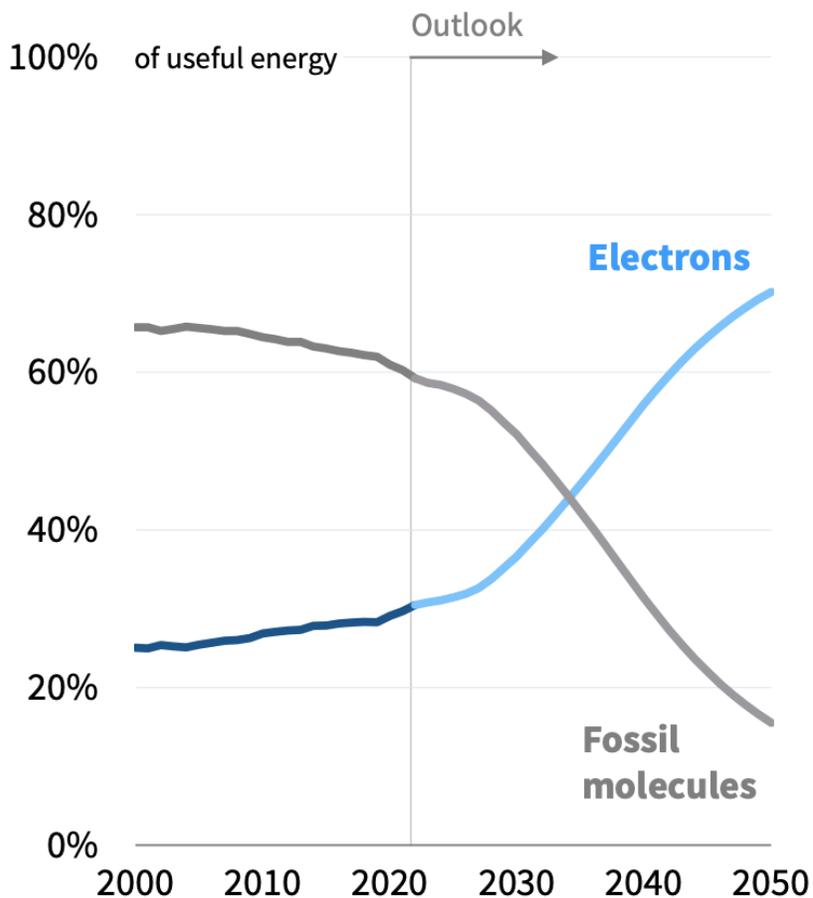
Renewables

Renewables beat fossil-fueled electricity



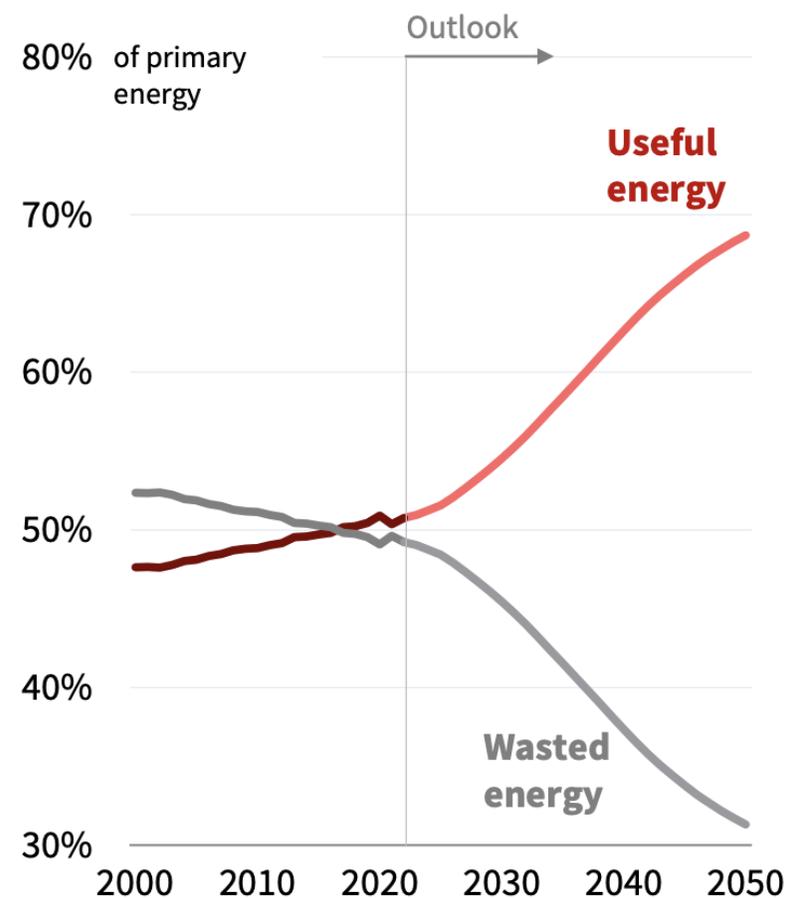
Electrification

Obedient electrons beat fiery molecules



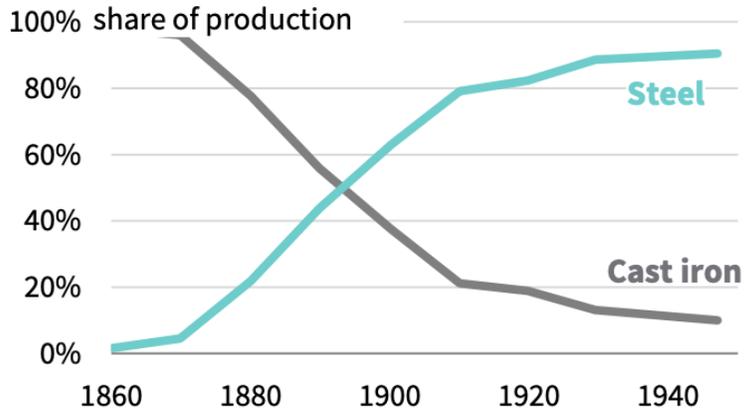
Efficiency

Efficiency beats waste

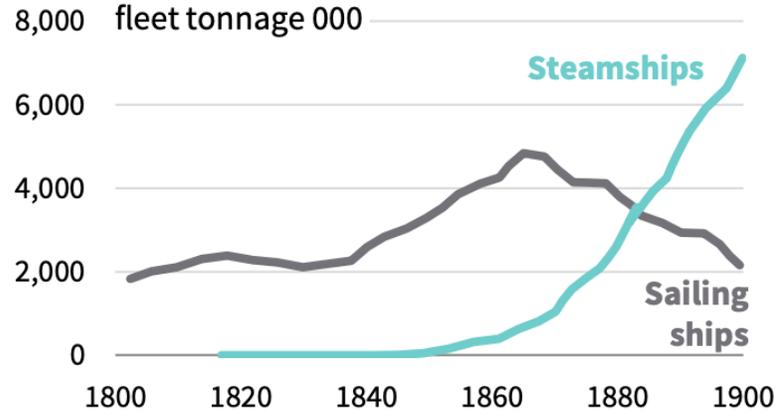


Ma per fortuna non è una storia nuova!

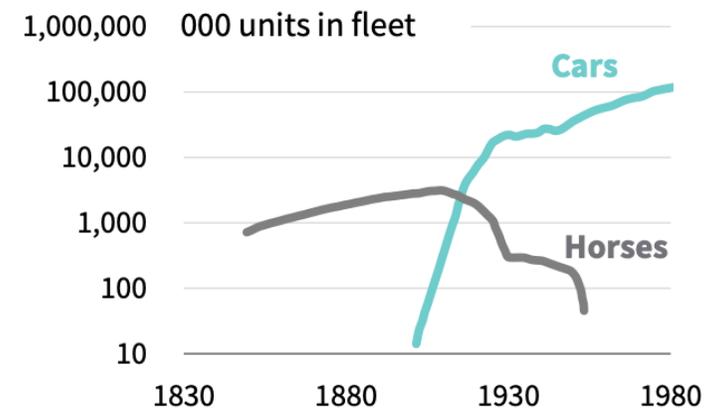
Industry: Cast iron to steel



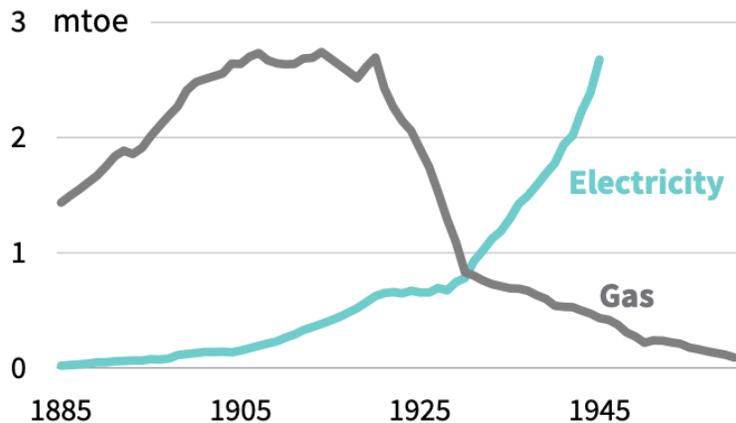
Ships: Sailing ships to steamships



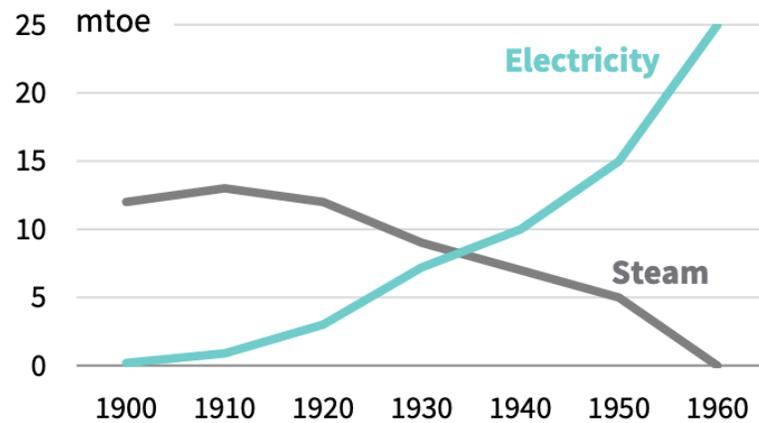
Land transport: Horses to cars



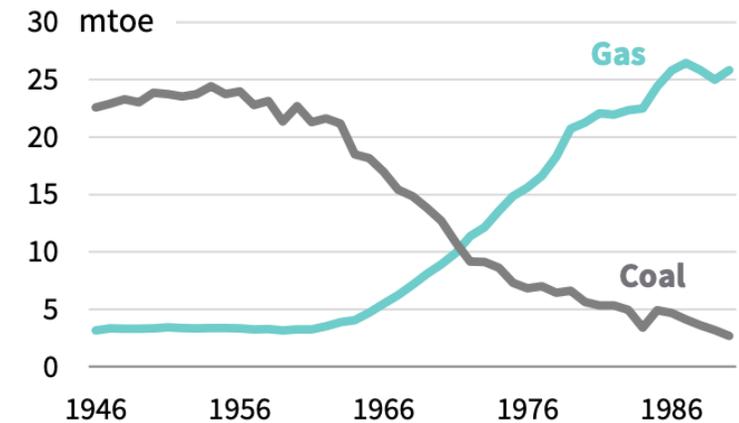
Lighting: Gas to electricity



Power: Steam to electricity



Heat: Coal to gas



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Grazie per l'attenzione

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