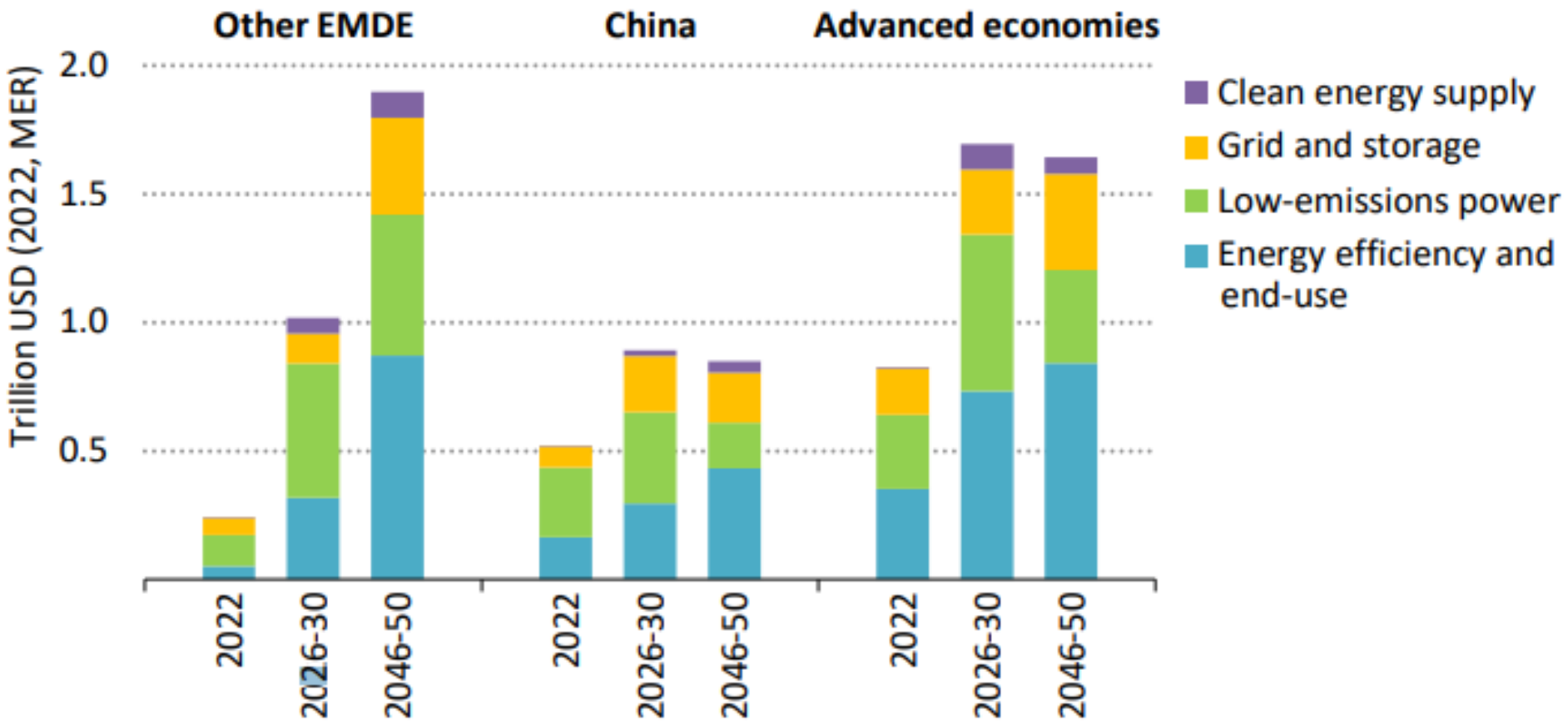
Recent trends in the green energy transition

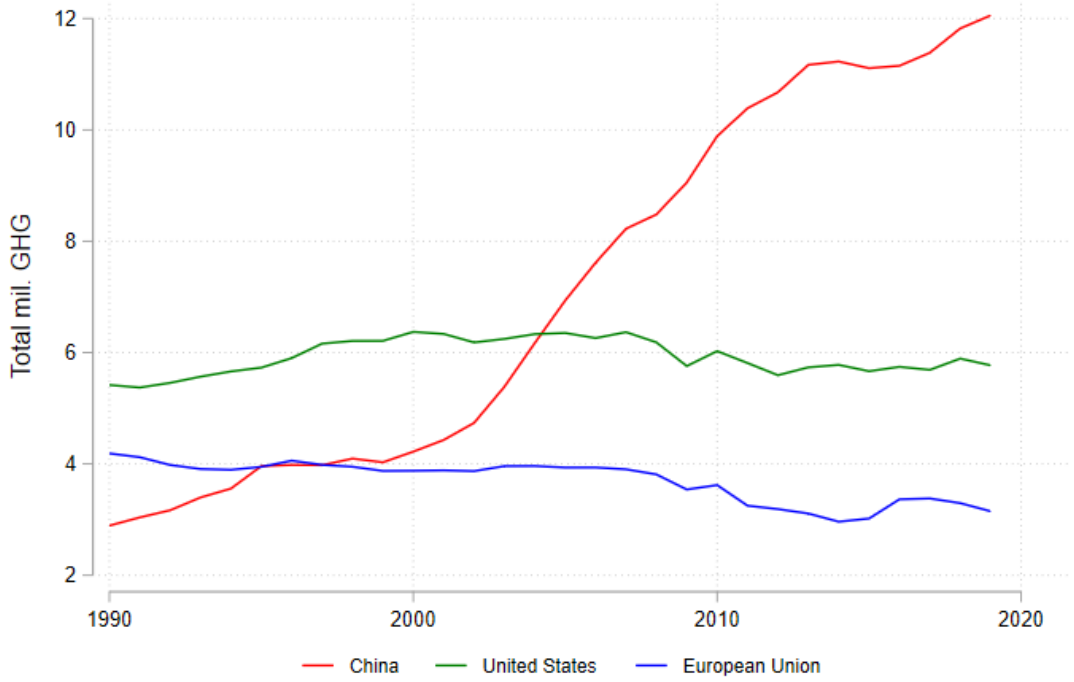
December 2023

Setting the scene:
Large investment needs to meet climate targets

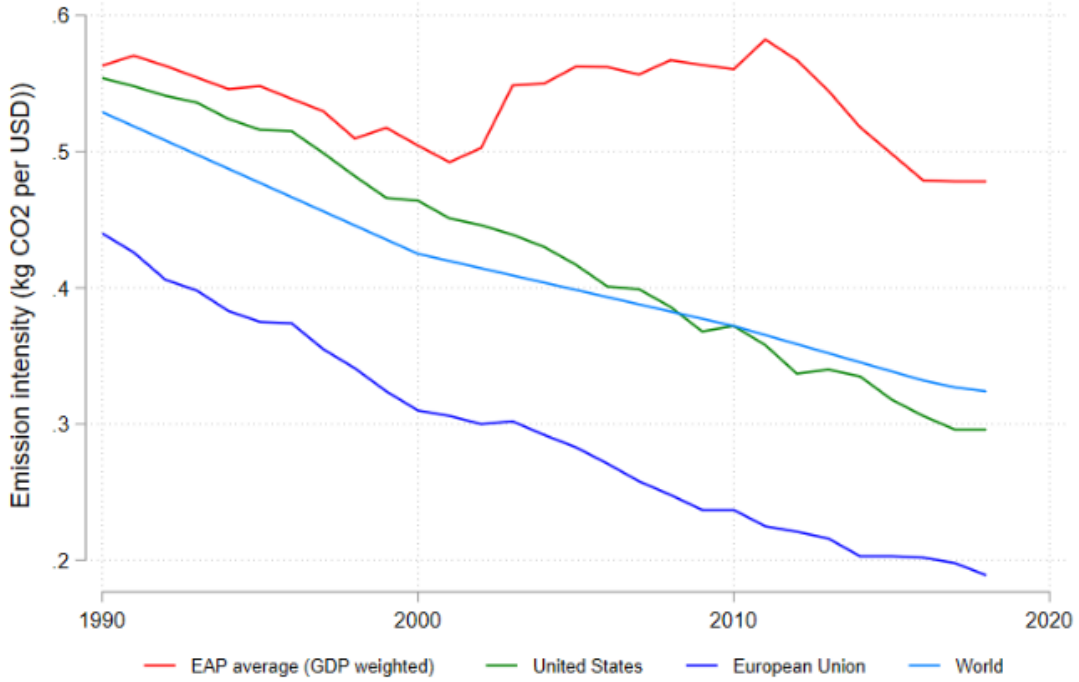


Setting the stage: East Asia's response to climate change affects the global outcome

EAP contributes significantly to global emission and emission growth



EAP economies are still carbon-intensive



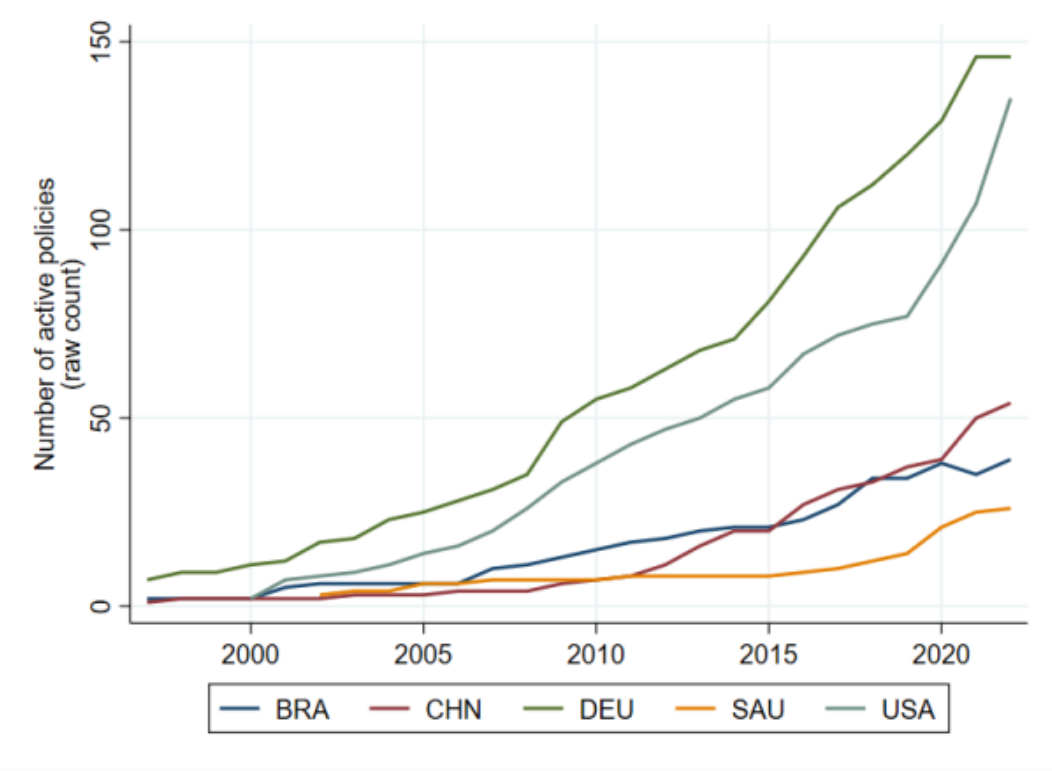
Source: World Bank calculation using OWiD data

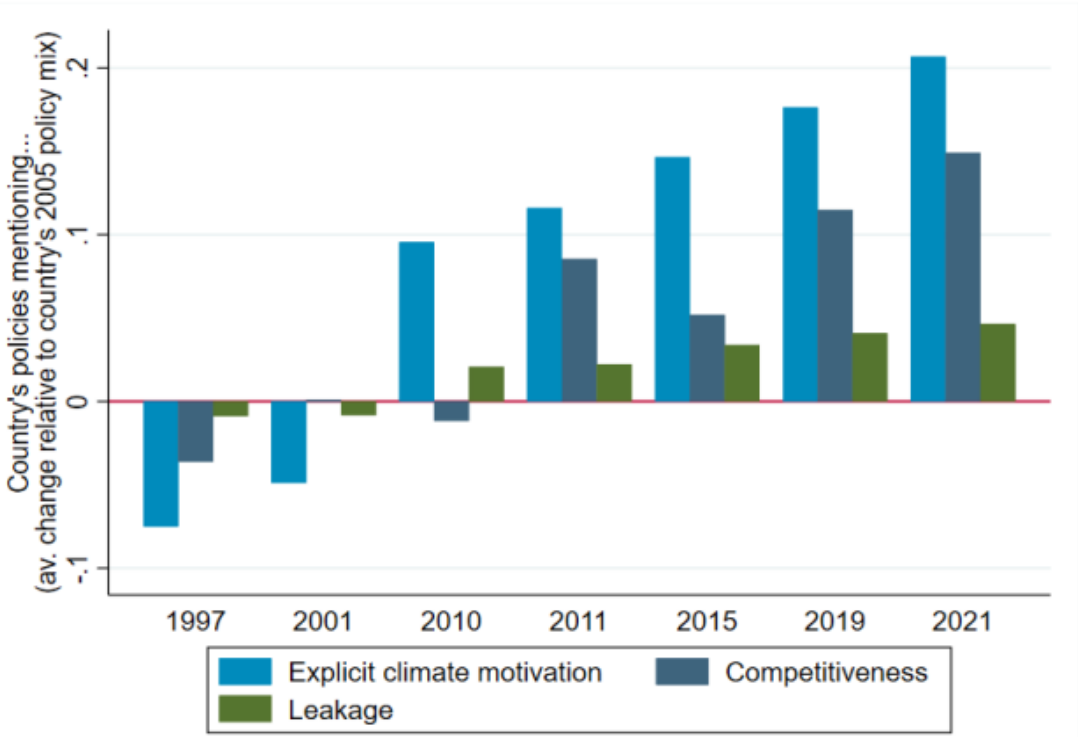
Climate Action:

At the intersection of
Trade,
Green investments, and
Industrial Policies

Are green goals contributing to a surge in protectionism?

Number of trade-related climate policies increased exponentially in G20 countries



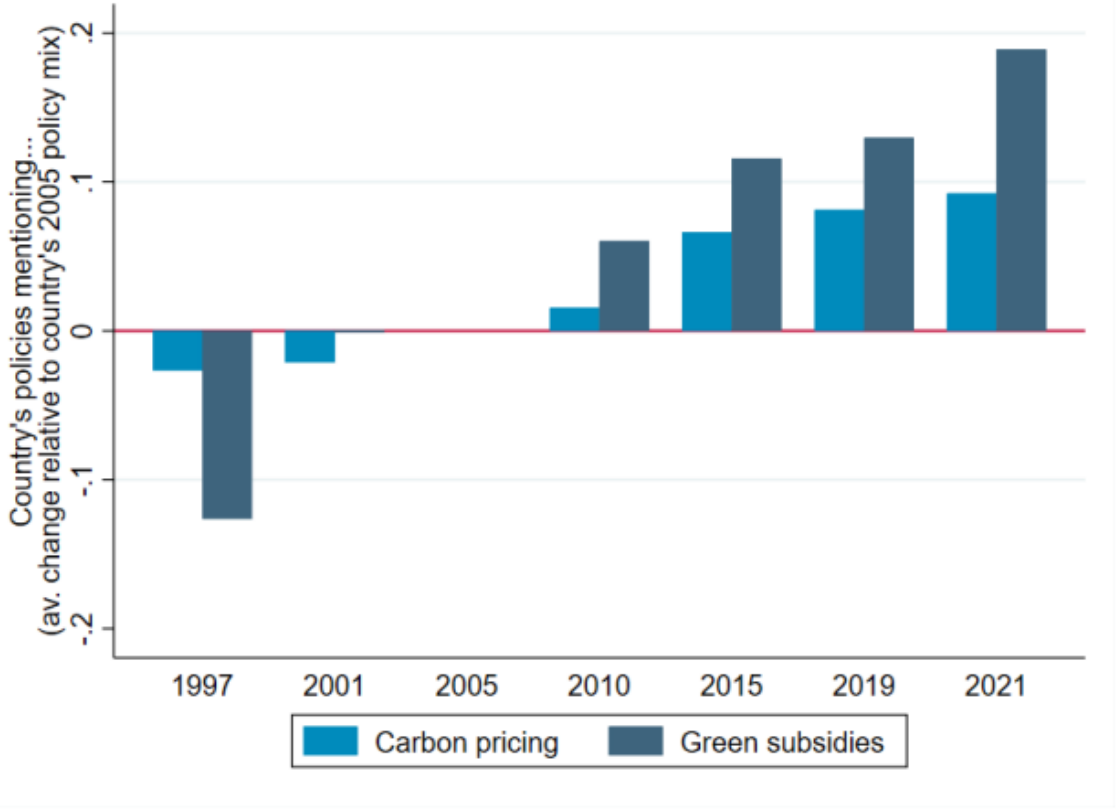


Selected dates on x-axis mark COP meetings and other notable events (Kyoto, Bonn COP, Cancun COP, Paris, Trade War, Post Covid)

Notes: New WB-ANU Climate Policies Database containing 1800 distinct policies surveyed in G20 countries, with >1500 in force as of March 2023 (>50 variables on policy timing, evolution, administration, scope, objectives and drivers, approach, and impact).

Source: Aisbett, Beck, Fernandes, Fisher, Sam Martim and Taglioni "The Implications of Climate Policy for Trade: Evidence from the Trade-related Climate Policy Database" work in progress

Subsidies increased since 2020 both as contributor to the green agenda and more broadly



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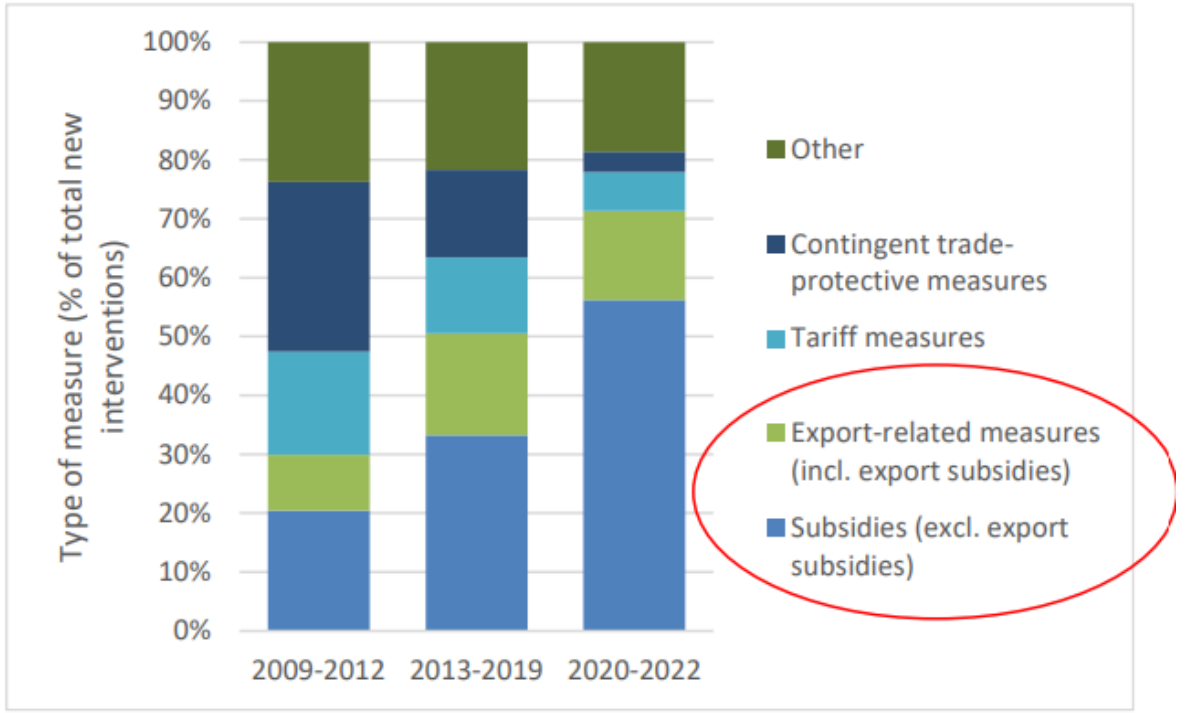


Source: Global Trade Alert.

Expected green subsidy levels, 2022-2031

The US Inflation Reduction Act (IRA)

$7,500

Projected subsidy per electric car under IRA

€6,000 ($6,680)

Projected subsidy in the EU

$37bn

Projected subsidy for clean tech manufacturing in the US

€35bn

Projected subsidy for clean manufacturing in the EU

EU's Green Deal Industrial Plan and Net-Zero Industry Act (NZIA)

$208bn

Estimated US renewable energy (RE) subsidies

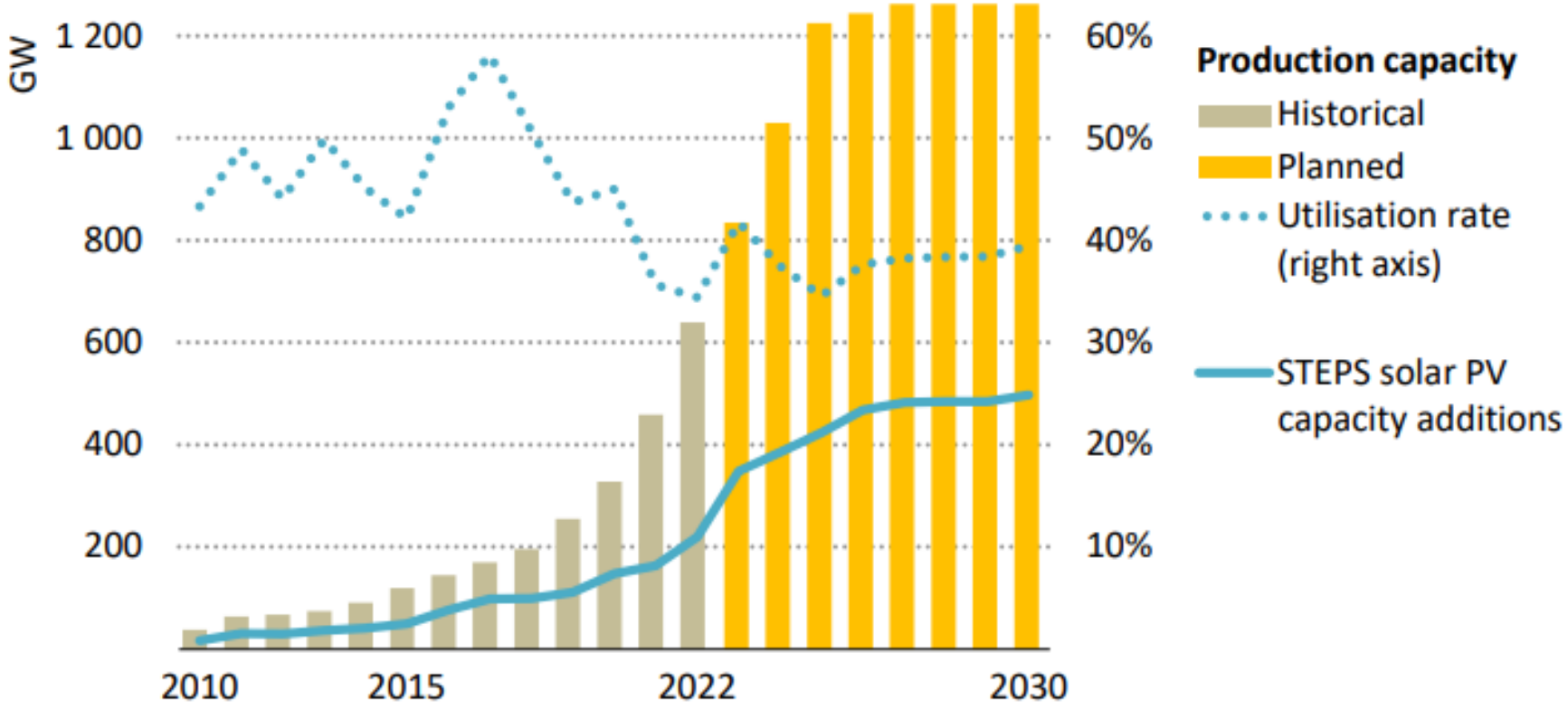
€800bn

Projected RE subsidies in the EU

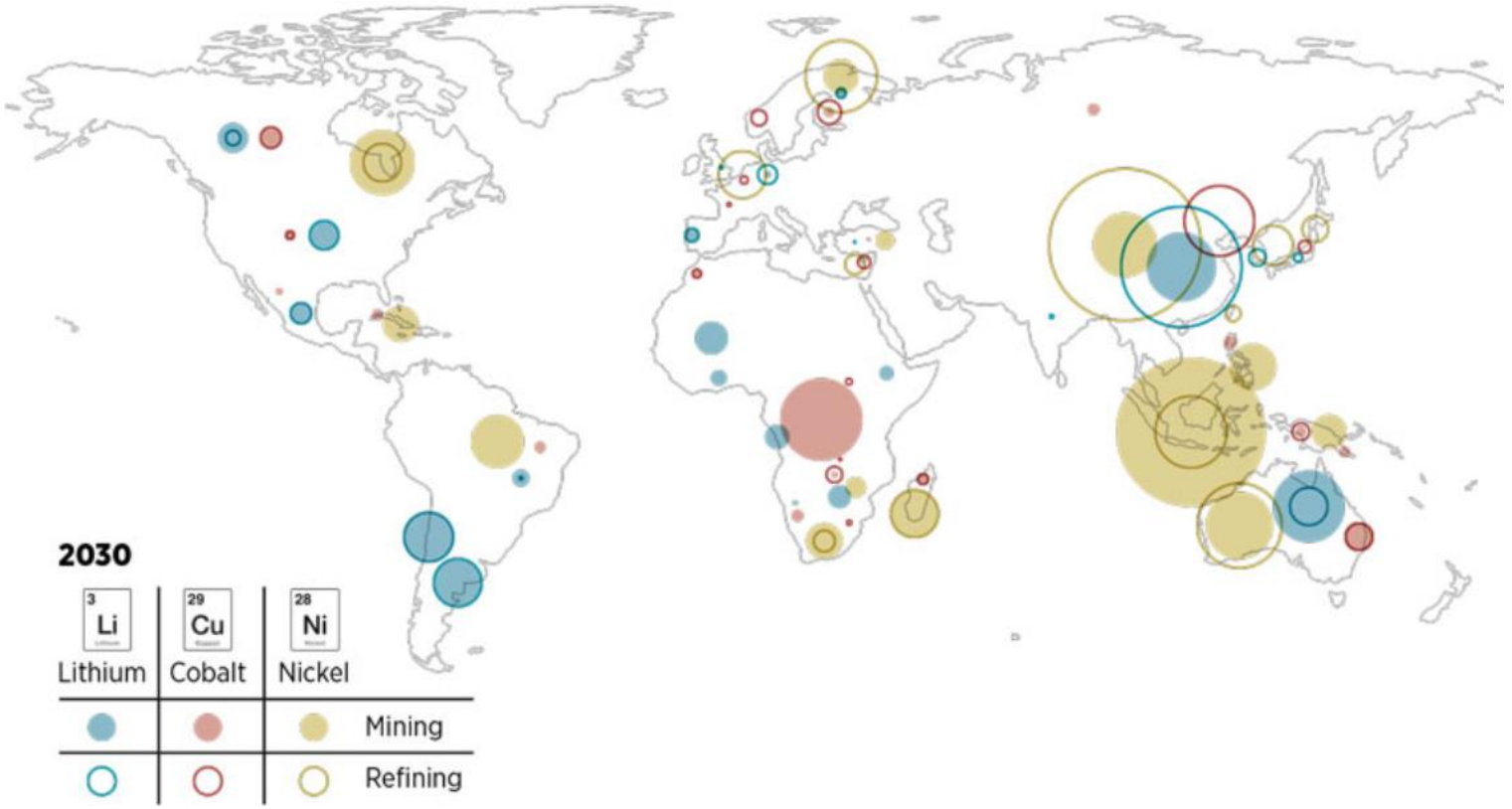
Keeping the end-goal on sight:
make the transition affordable, resilient, and inclusive

Opportunities to enhance technology diffusion to make the transition **affordable**

Planned expansion of solar manufacturing outpaces solar PV capacity additions to 2030



Improving the **resilience** of clean energy technology supply chains



Source: (BloombergNEF, 2023)

The **centralized supply chains are likely to remain** providing opportunities to countries to develop middle stages of production (processing) or even in the end stages (battery and electric vehicle manufacturing)

But the development of these supply chains necessitates careful balancing of economic factors, environmental impacts and the well-being of local populations.

Looking at the inclusion angle

Jobs Need to ensure that job creation in clean technologies will outweigh job losses in fossil fuel and related industries. Upskilling – reskilling.

Energy bills in emerging market and developing economies, energy bills are expected to increase (carbon pricing schemes and the phasing out of inefficient fossil fuel subsidies). Need for carful design to limit impacts and put in place safety nets for households

E&S imperatives estimated 54% of energy transition minerals are located on or near indigenous peoples' land, underscoring the need for robust and early community engagement. Mining and processing also need adequate management of environmental and biodiversity impacts

Thank-you

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