



# Energy Technology Perspectives 2024

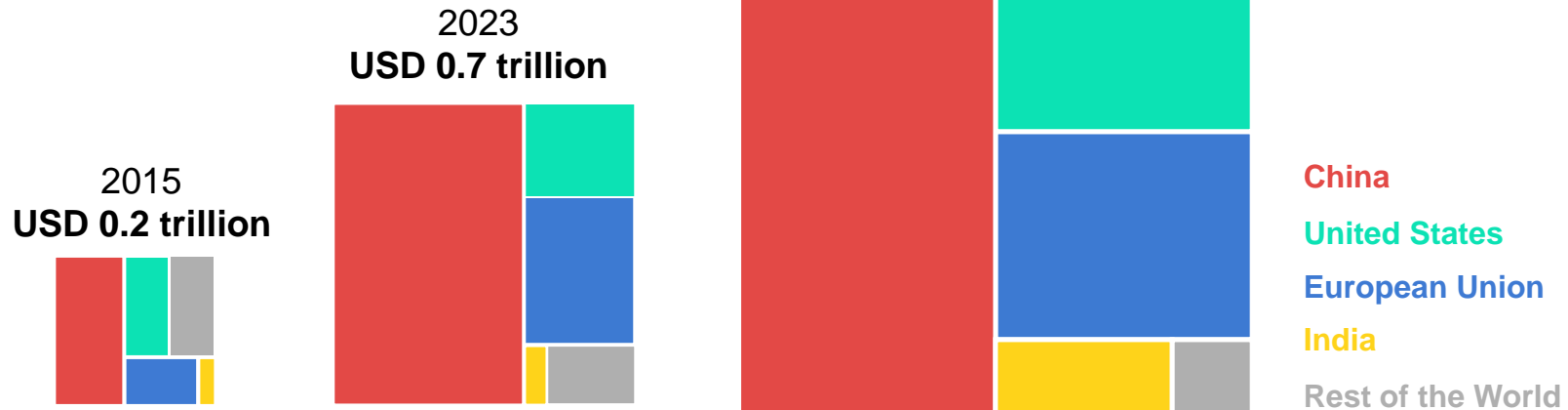
Presentation to the press

30 October 2024

# Clean & modern technologies are a sizeable economic opportunity

Global market value for clean energy technologies

2035 under current policy settings  
**USD 2.1 trillion**



**The market for clean technologies is set to triple to 2035 under current policy settings, close to value of the global crude oil market in recent years.**

# Investment in clean technology manufacturing is booming

Clean technology manufacturing facilities in operation, 2023

## Solar PV

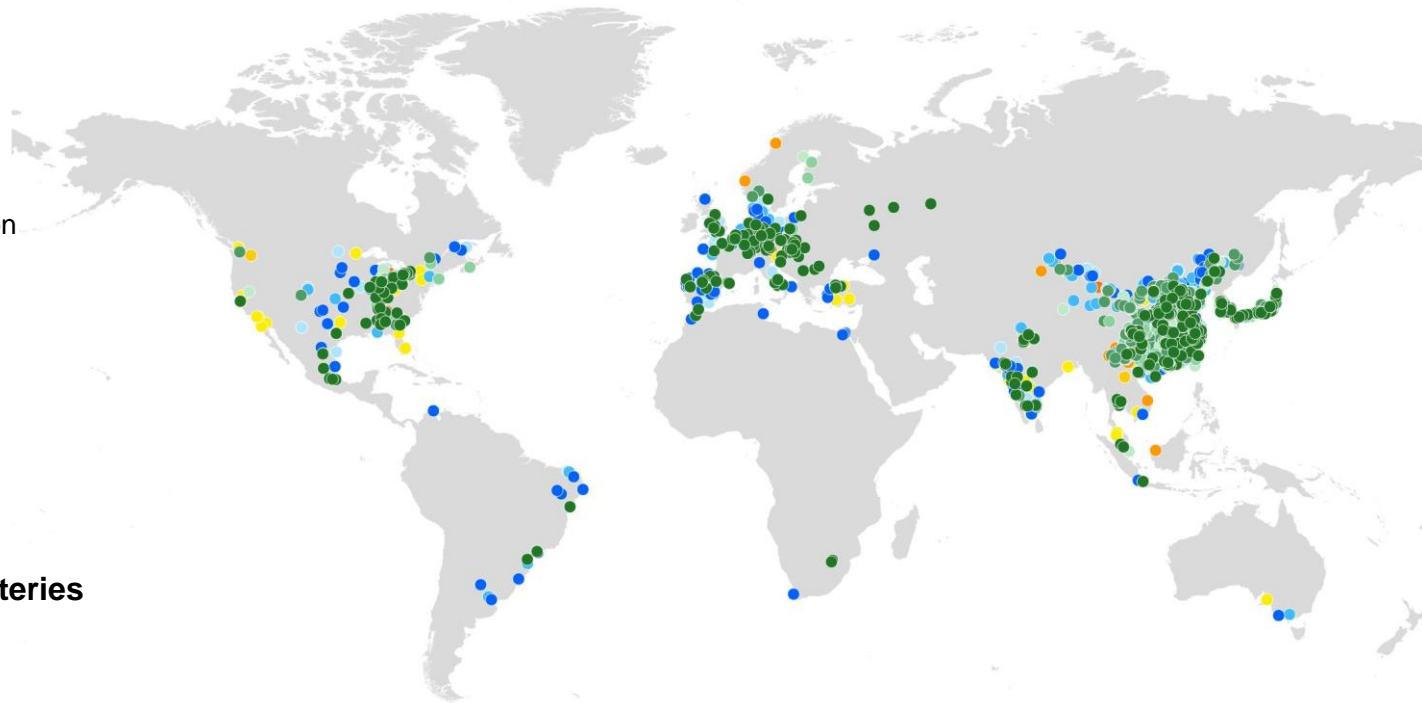
- Polysilicon
- Wafer
- Cell
- Module

## Wind

- Blade
- Nacelle
- Tower

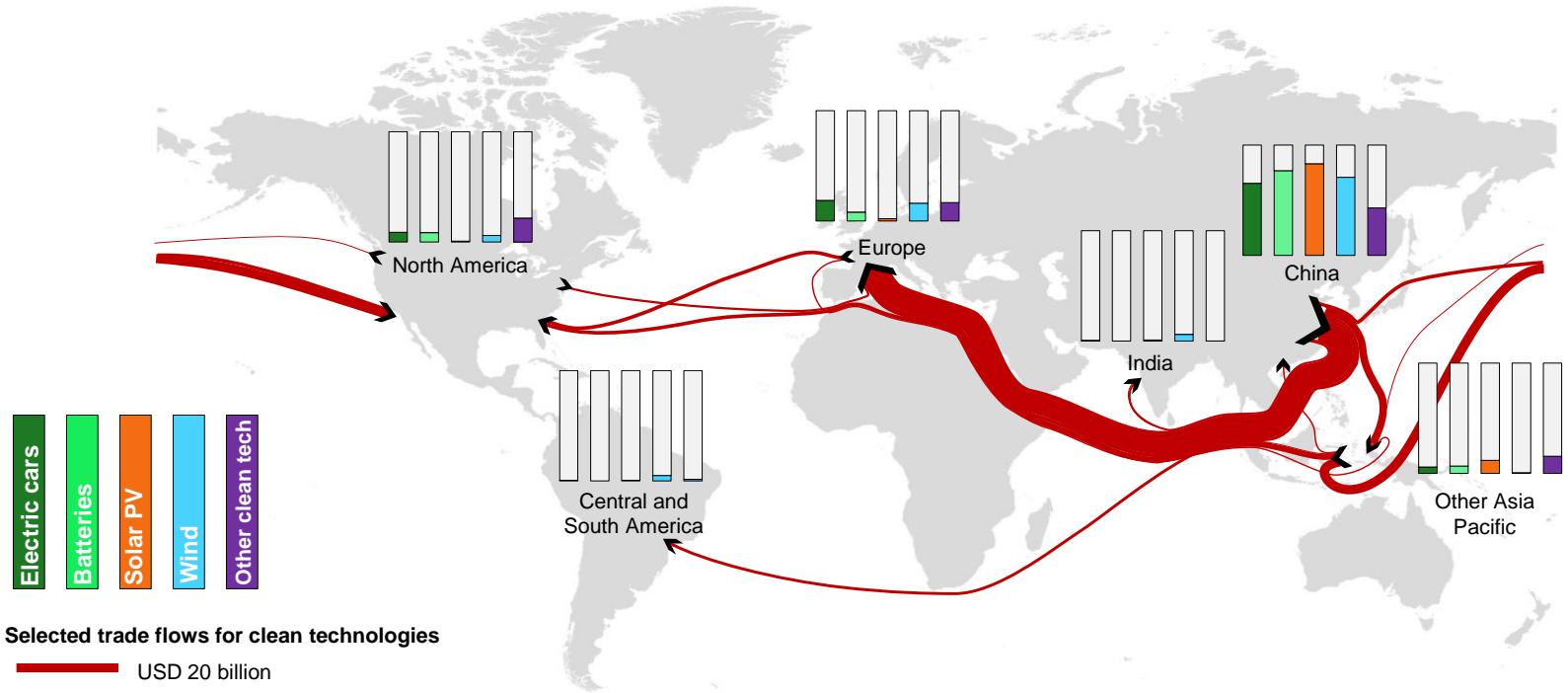
## EVs & batteries

- Anode
- Cathode
- Cell



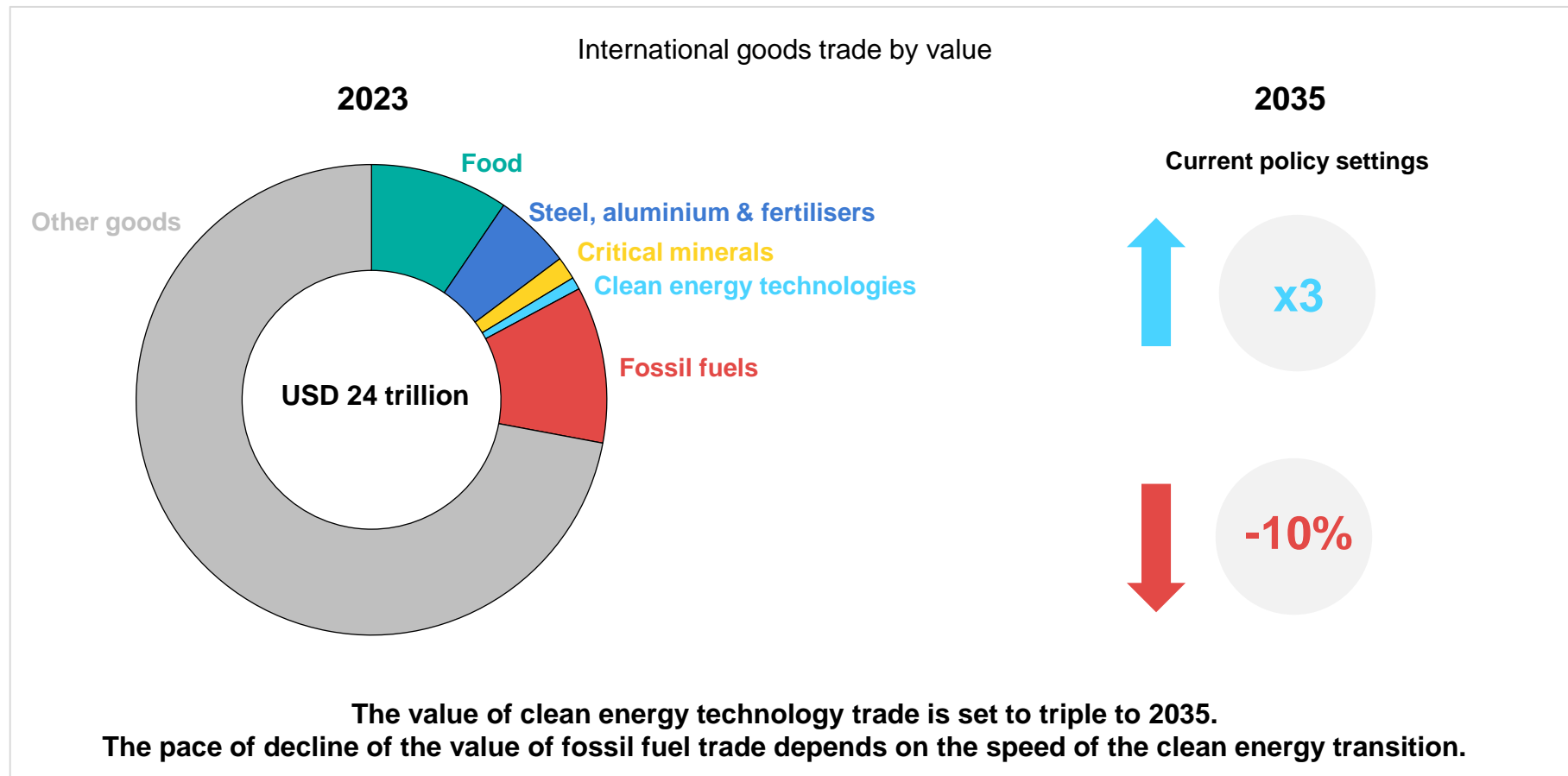
# Investment in clean technology manufacturing is booming

Share of global clean technology manufacturing output by technology, 2023



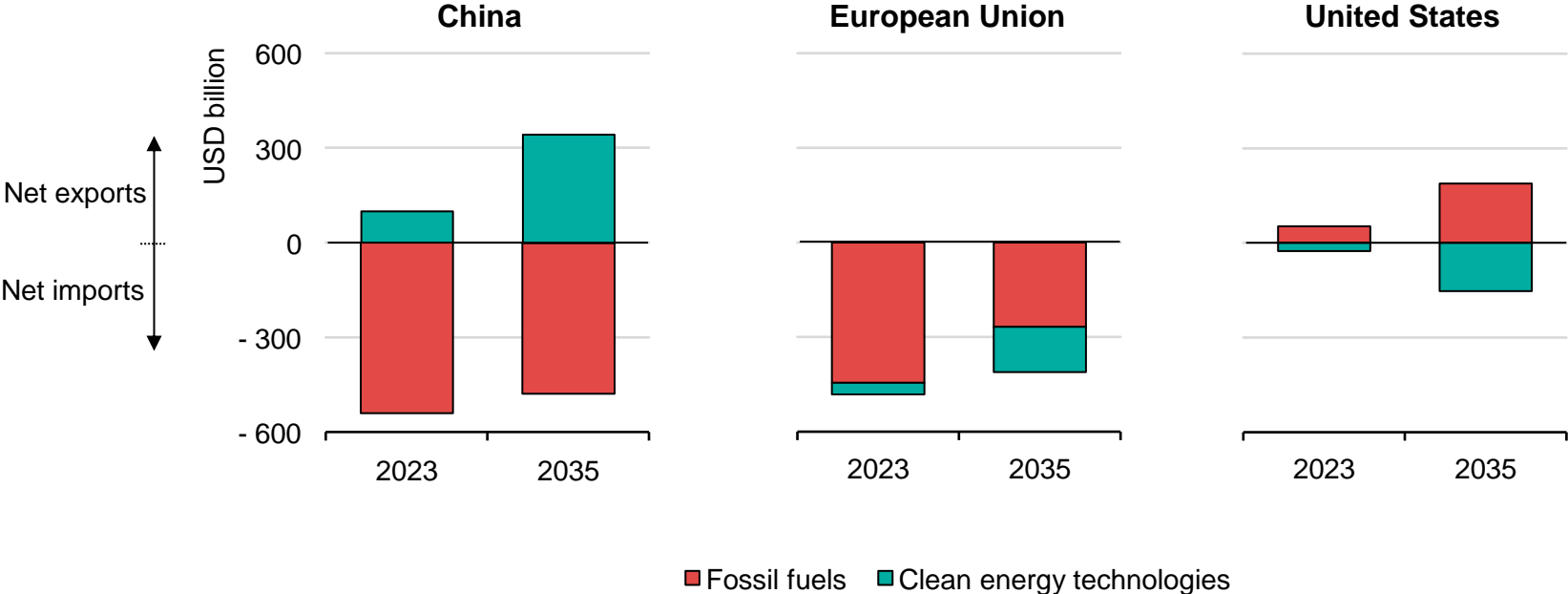
**The manufacturing of clean technologies is highly concentrated geographically, with China accounting for around 70% of the global manufacturing output value for the six key clean technologies.**

# International trade is essential to the global economy



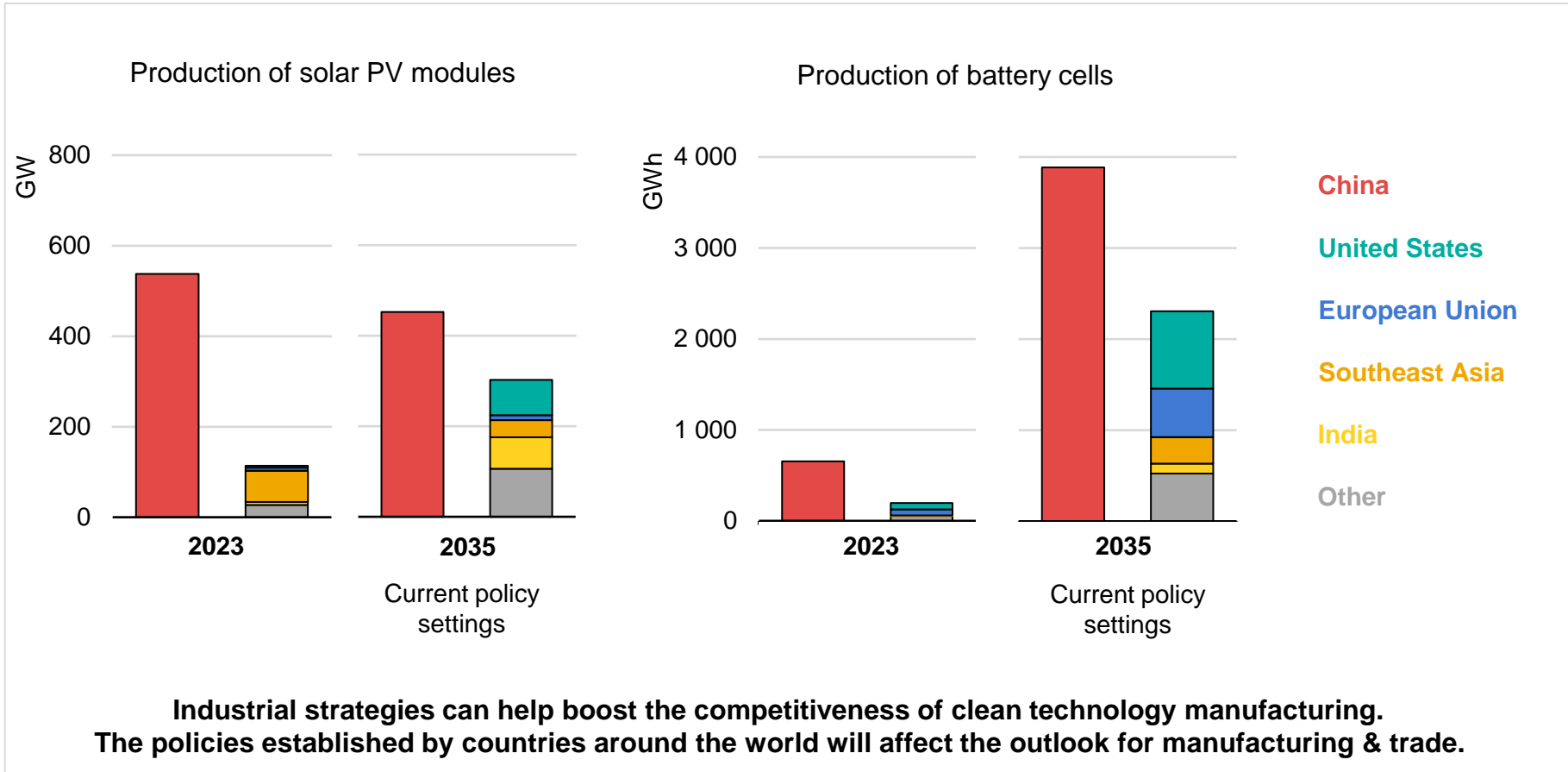
# China remains the world's clean technology powerhouse

Net trade of fossil fuels and clean energy technologies under current policy settings

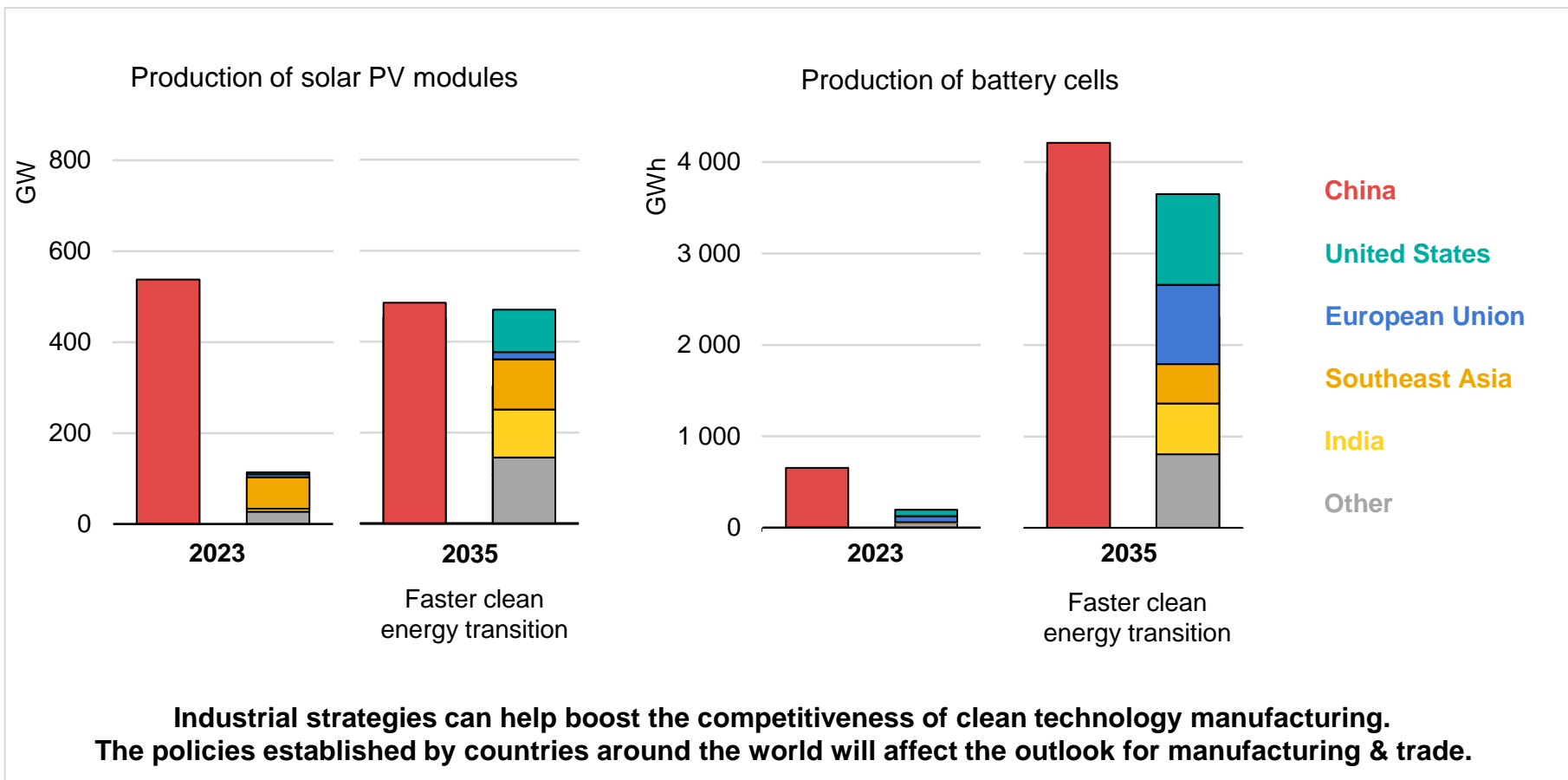


**The value of China's clean tech exports in 2035 is roughly equivalent to the projected 2024 oil export revenue of Saudi Arabia & the United Arab Emirates combined. The EU's import bill shifts to clean tech, which is a boon to resilience.**

# Industrial policy & competitiveness shape the outlook for trade



# Industrial policy & competitiveness shape the outlook for trade

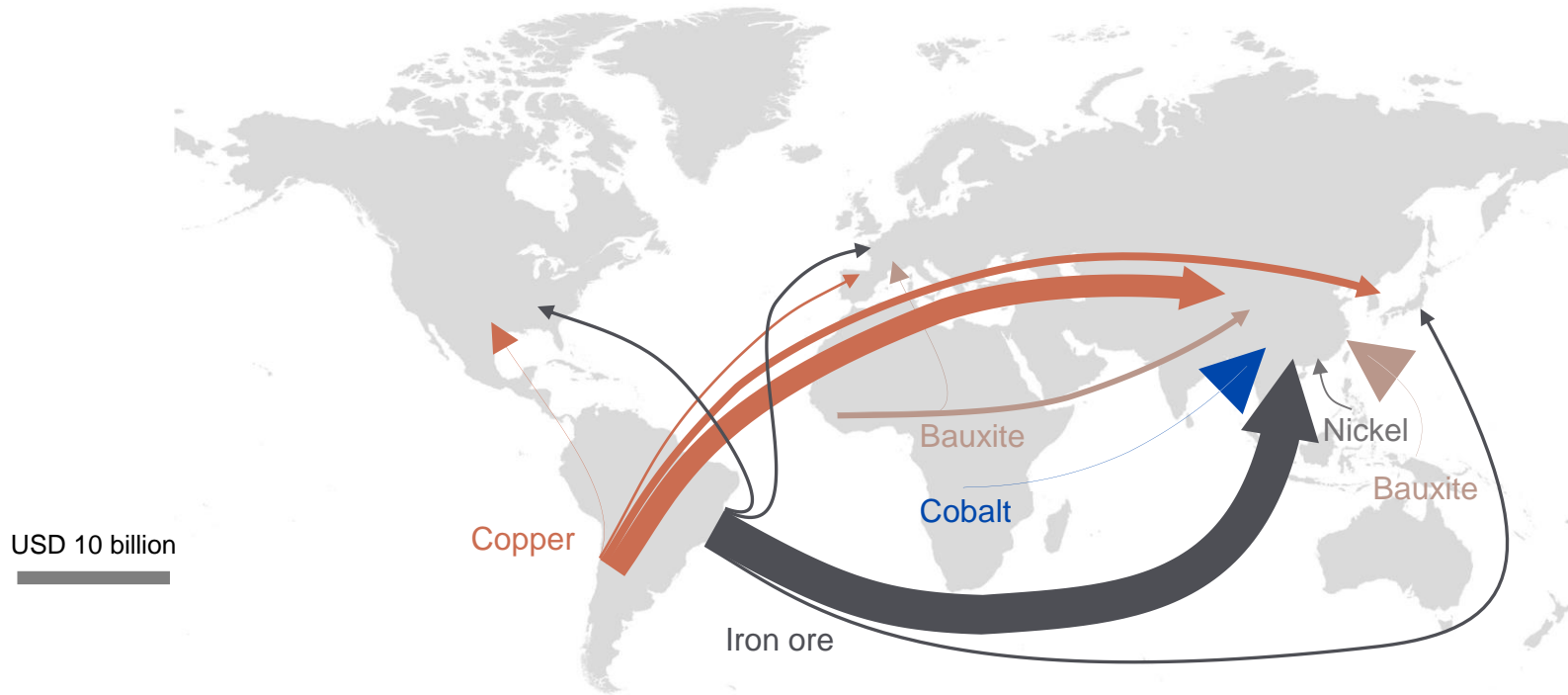


**Industrial strategies can help boost the competitiveness of clean technology manufacturing. The policies established by countries around the world will affect the outlook for manufacturing & trade.**



# The door of the new energy economy is still open to emerging markets

Trade flows of raw materials from emerging markets and developing economies, 2023



**A fair and just transition requires enabling more regions to reap the economic benefits from growing supply chains for clean and modern energy technologies.**

# The door of the new energy economy is still open to emerging markets

Key manufacturing opportunities in the High Potential Case

- ✓ Skills of the workforce
- ✓ Good energy infrastructure
- ✓ Large lithium & iron ore reserves
- ✓ High fertiliser demand



Wind blade manufacturing  
increases x4 by 2035



Third largest battery  
manufacturer by 2050




Second largest exporter of  
near-zero emissions  
ammonia by 2050

**A fair and just transition requires enabling more regions to reap the economic benefits from growing supply chains for clean and modern energy technologies.**

# The door of the new energy economy is still open to emerging markets

Key manufacturing opportunities in the High Potential Case

- ✓ Good renewable resources
- ✓ Large cobalt reserves
- ✓ Existing large fertiliser production
- ✓ Available energy infrastructure (North & South Africa)



EV manufacturing accounts for 3% of North Africa's GDP by 2050



Iron exports x4 more value than iron ore exports





Africa meets all ammonia demand with domestic resources by 2050

A fair and just transition requires enabling more regions to reap the economic benefits from growing supply chains for clean and modern energy technologies.

# The door of the new energy economy is still open to emerging markets

## Key manufacturing opportunities in the High Potential Case

- ✓ **Good business environment**
- ✓ **Strong high-tech manufacturing sector**
- ✓ **Existing solar PV and ICE manufacturing**
- ✓ **Large nickel reserves**



**Over 10% of global polysilicon production by 2050**



**EV exports approach 3 million by 2035**

**A fair and just transition requires enabling more regions to reap the economic benefits from growing supply chains for clean and modern energy technologies.**

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