International Energy Agency

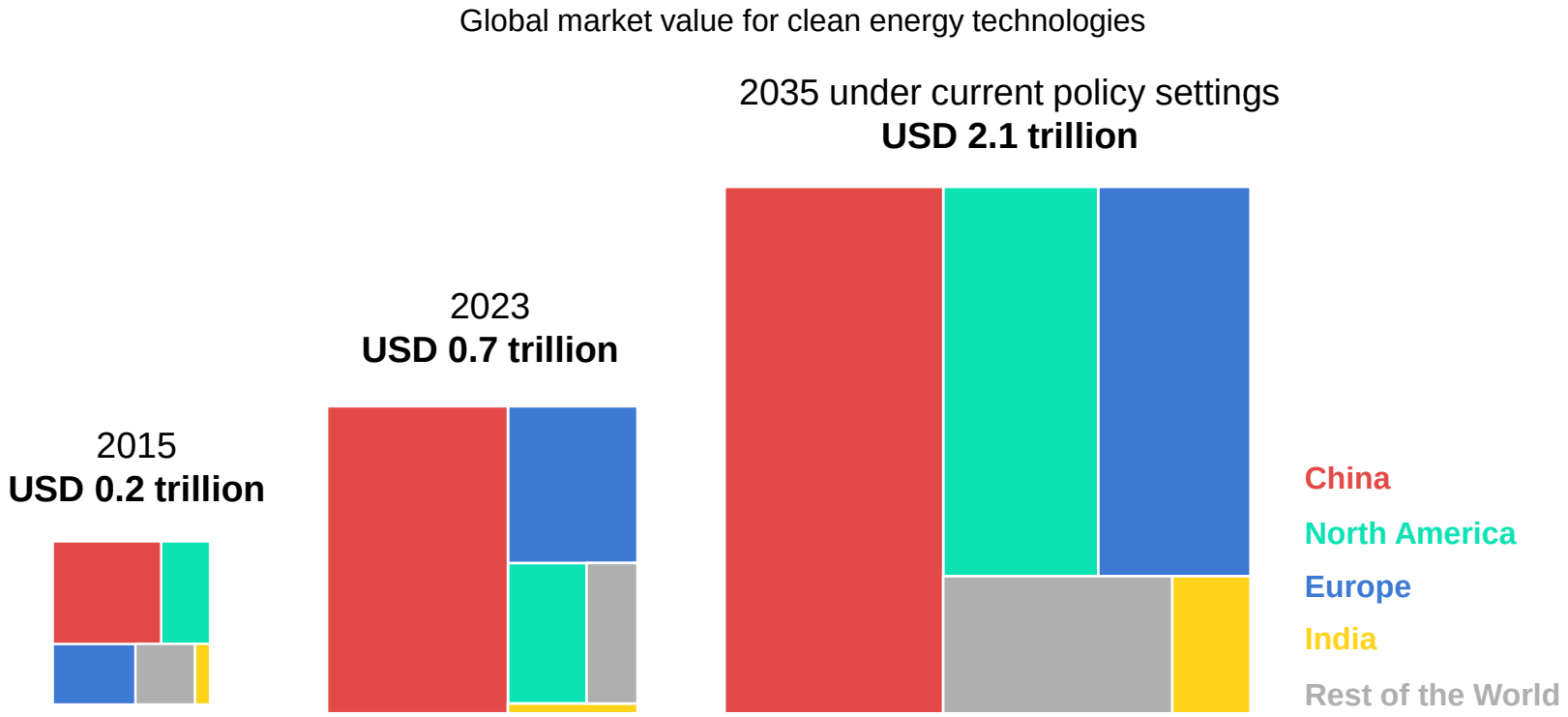
Case study: clean technology manufacturing & trade

Insights from the IEA Energy Technology Perspectives 2024

Tim Gould, Chief Energy Economist

9 November 2024

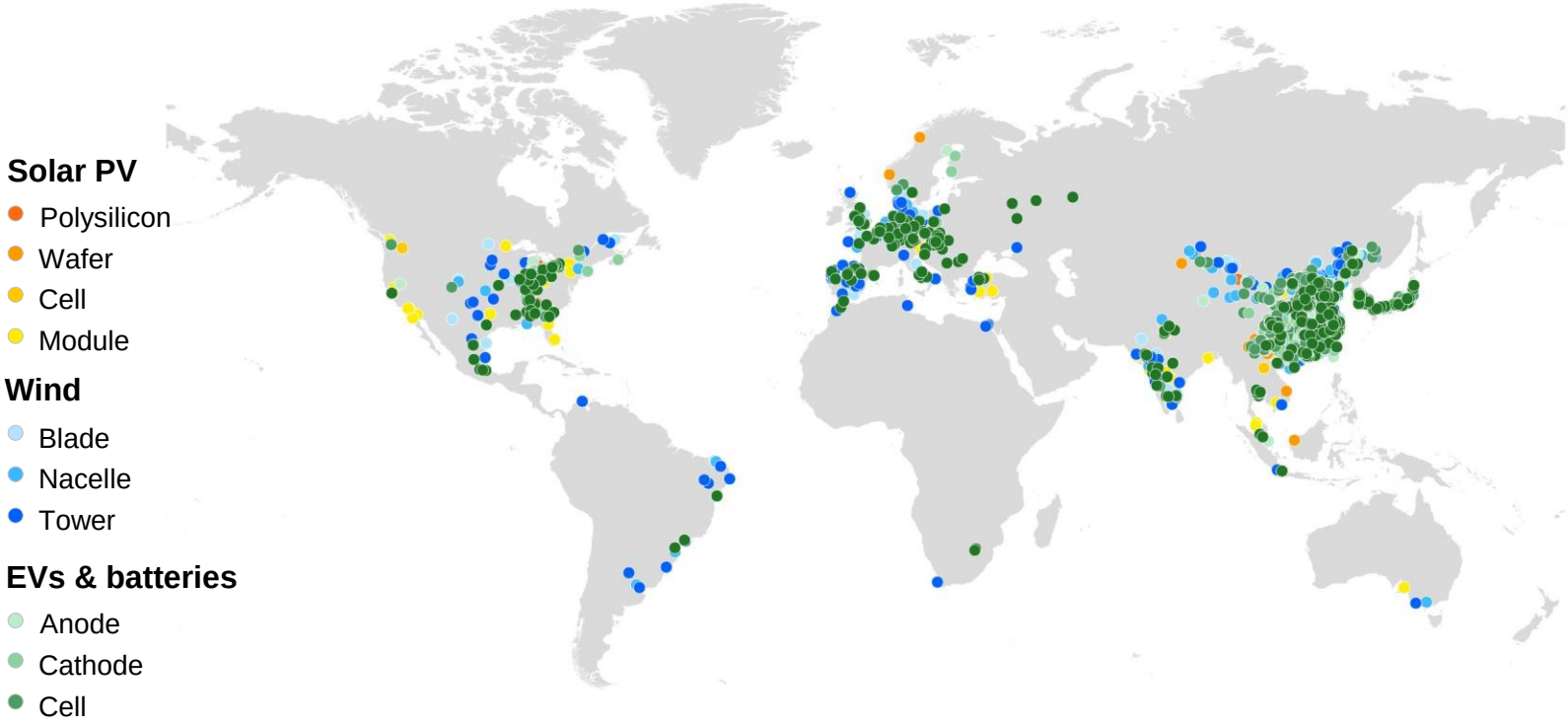
Clean & modern technologies are a sizeable economic opportunity



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.

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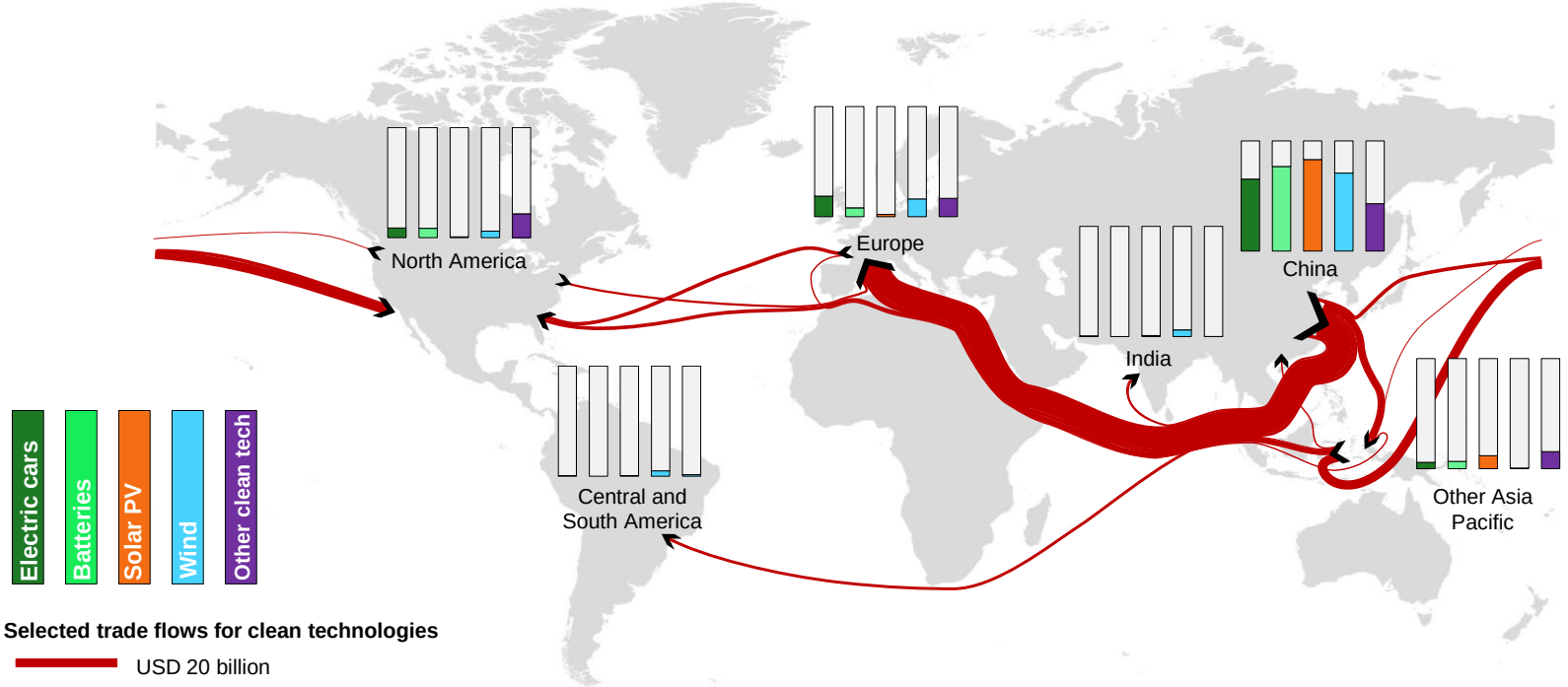
Investment in clean technology manufacturing is booming



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Investment in clean technology manufacturing is booming

Share of global clean technology manufacturing output by technology, 2023

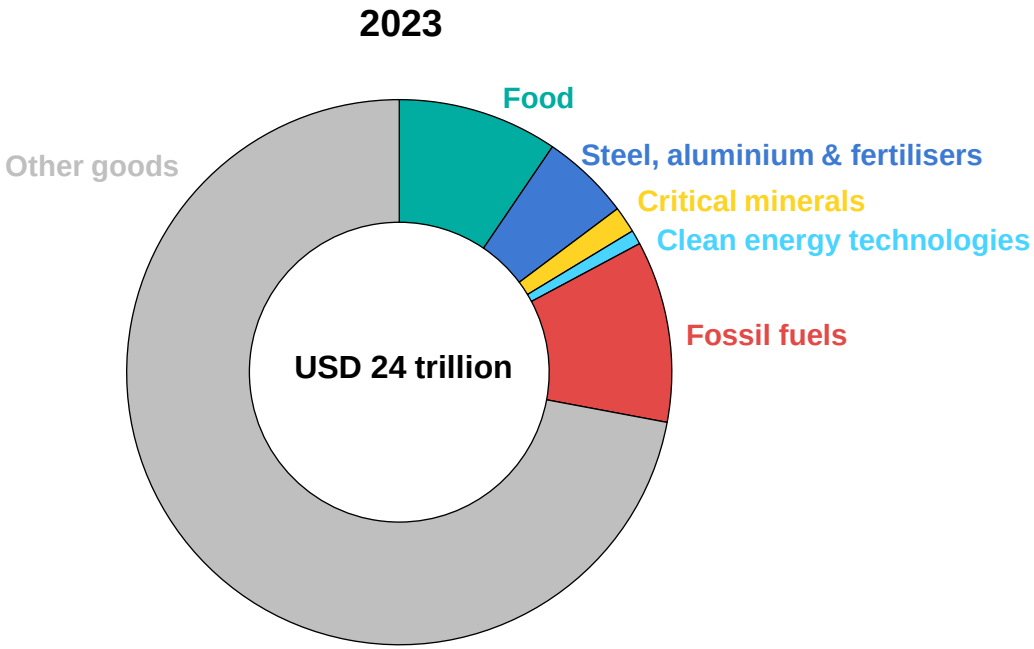


The manufacturing of clean technologies is highly concentrated geographically, with China accounting for around 70% of the global manufacturing output value for the six key clean technologies.

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Shifting patterns of energy-related trade

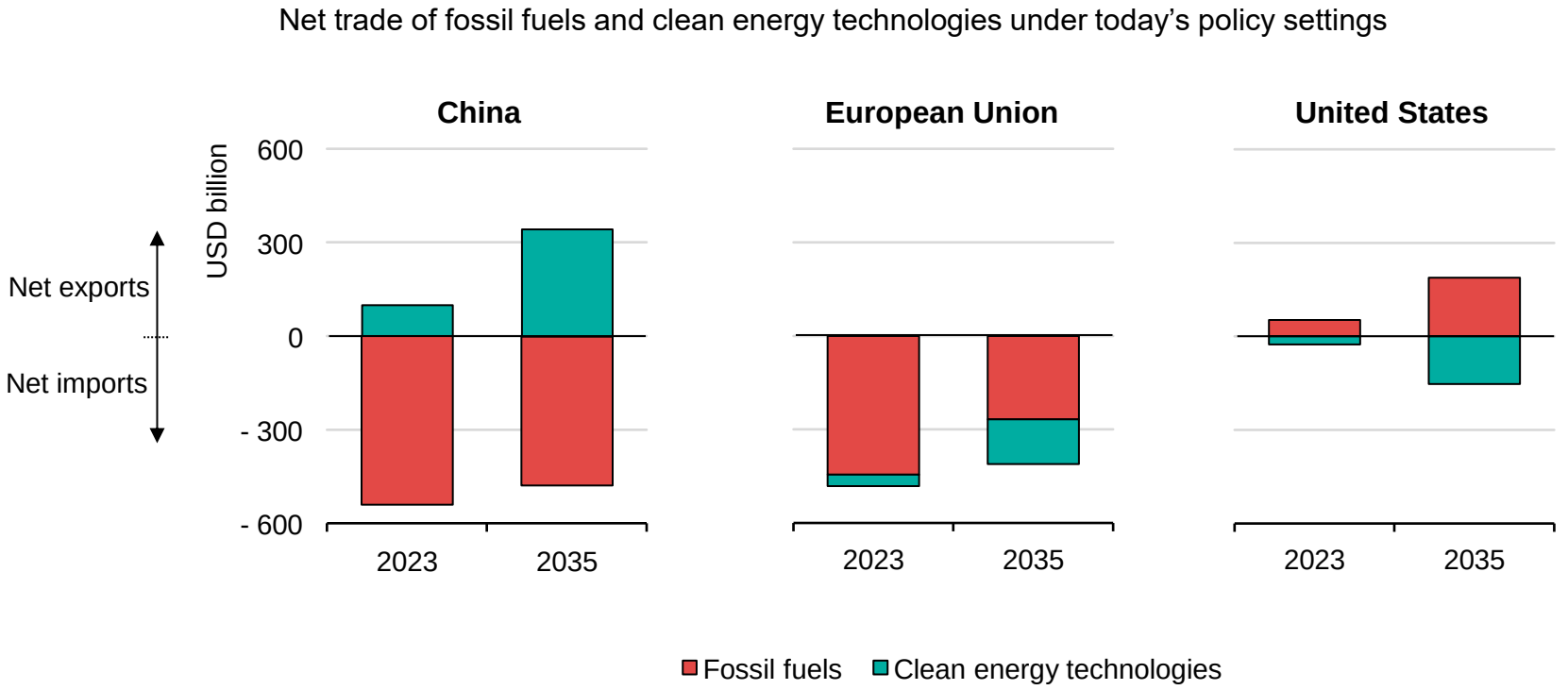
International goods trade by value



The value of clean energy technology trade is set to triple to 2035.
The pace of decline in the value of fossil fuel trade depends on the speed of the clean energy transition.

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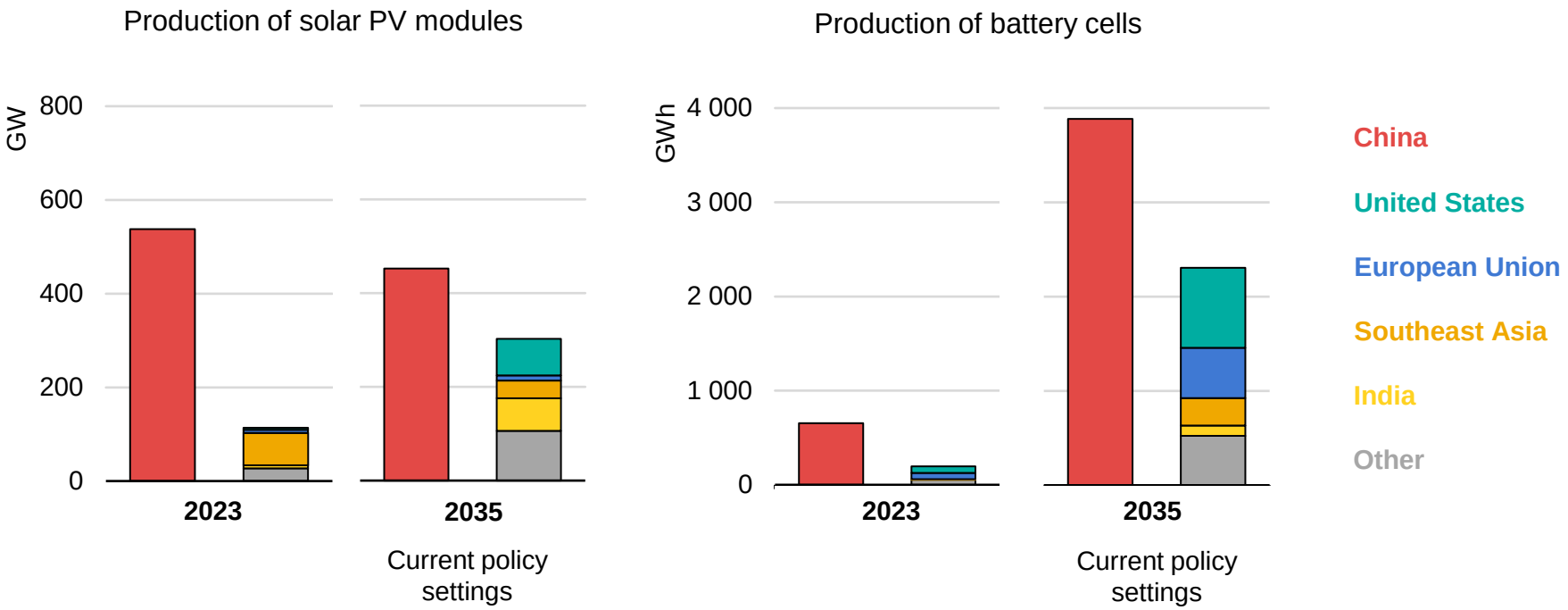
China remains the world's clean technology powerhouse



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.

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Underlying costs & industrial strategies shape the outlook for trade

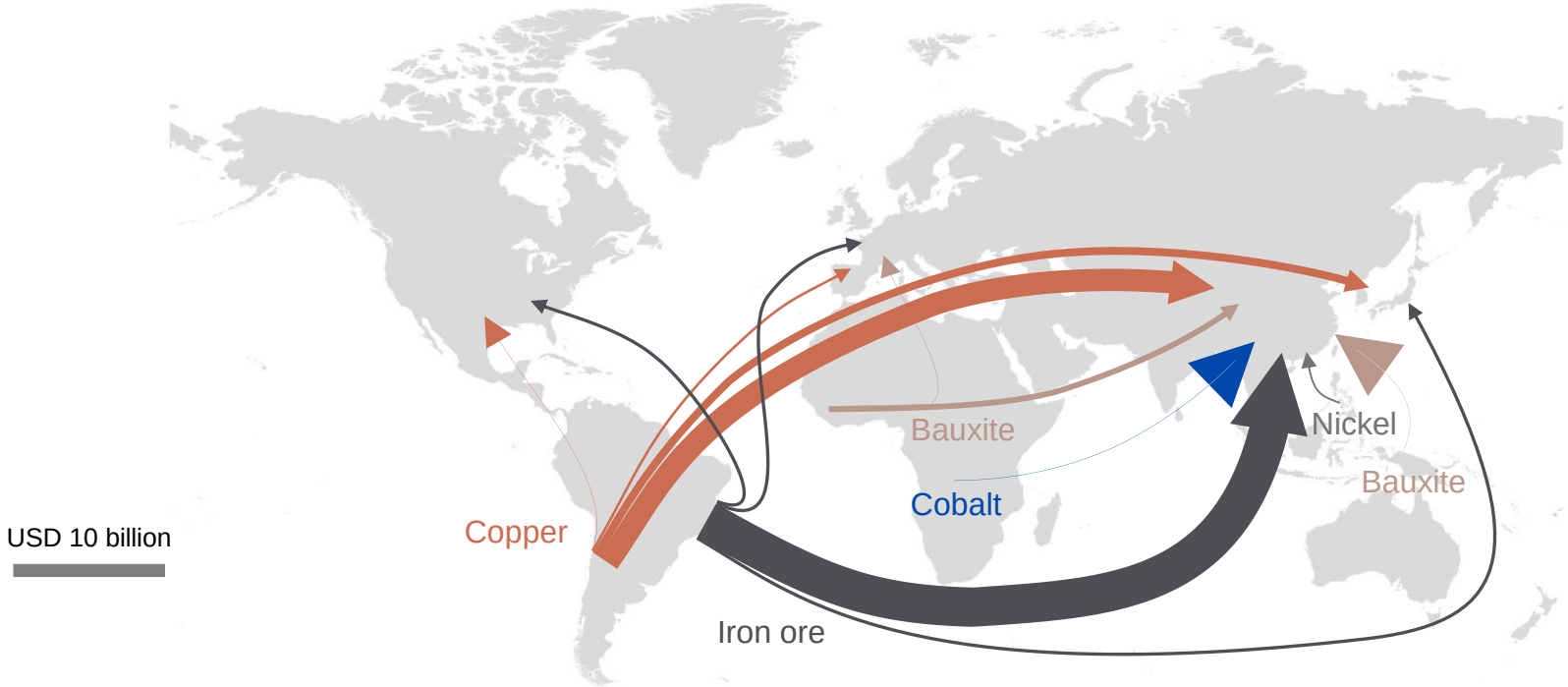


Industrial strategies are a key variable in determining the future of clean technology manufacturing.

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Open questions for emerging and developing economies

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



For the moment, the role of most emerging and developing economies in clean technology supply chains is limited to the supply of raw materials; inclusive & equitable transitions require opportunities to move up value chains

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