

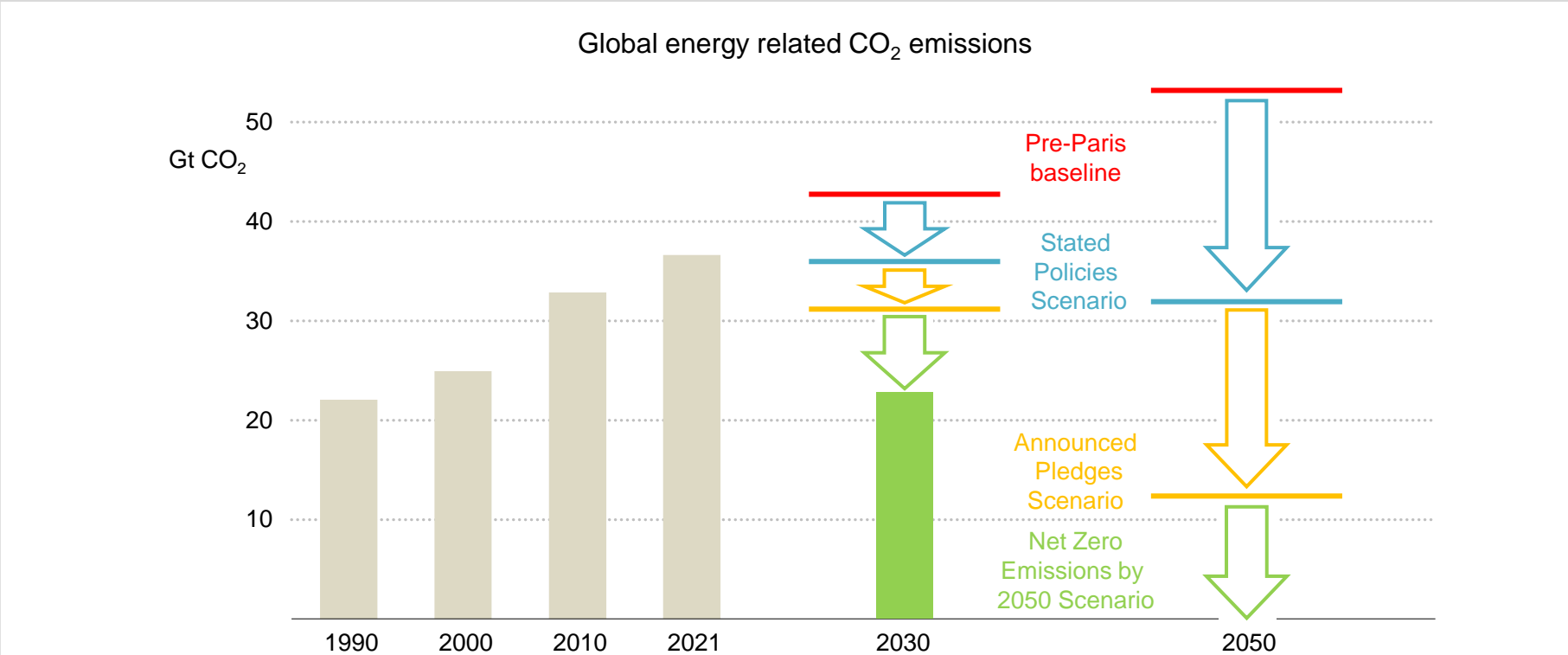


# A global energy sector in transition

Dr. Timur Gül, Head Energy Technology Policy Division, IEA

Österreichische Nationalbank, 25 May 2023

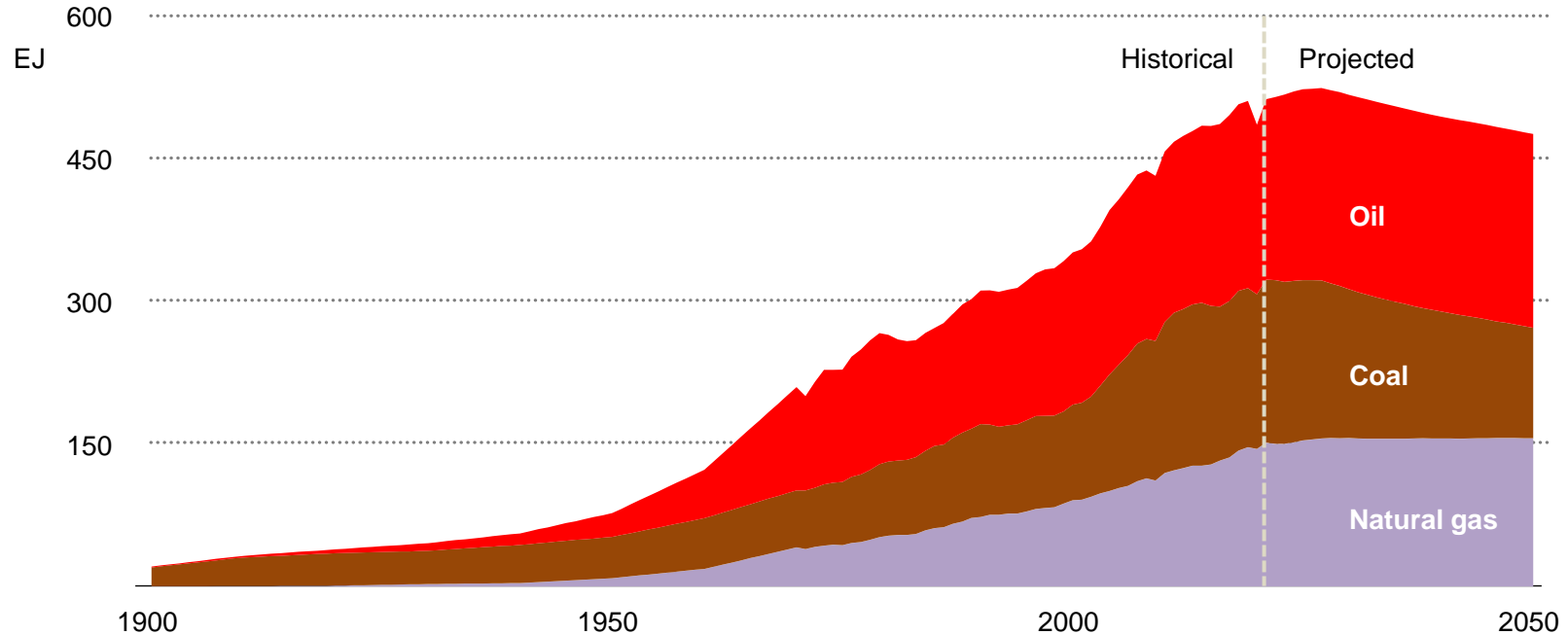
# Keeping the door to 1.5 °C open



**Policy and technology progress since 2015 has shaved 1 °C off projected warming, a step in the right direction; but much more needs to be done in order to avoid severe climate disruptions**

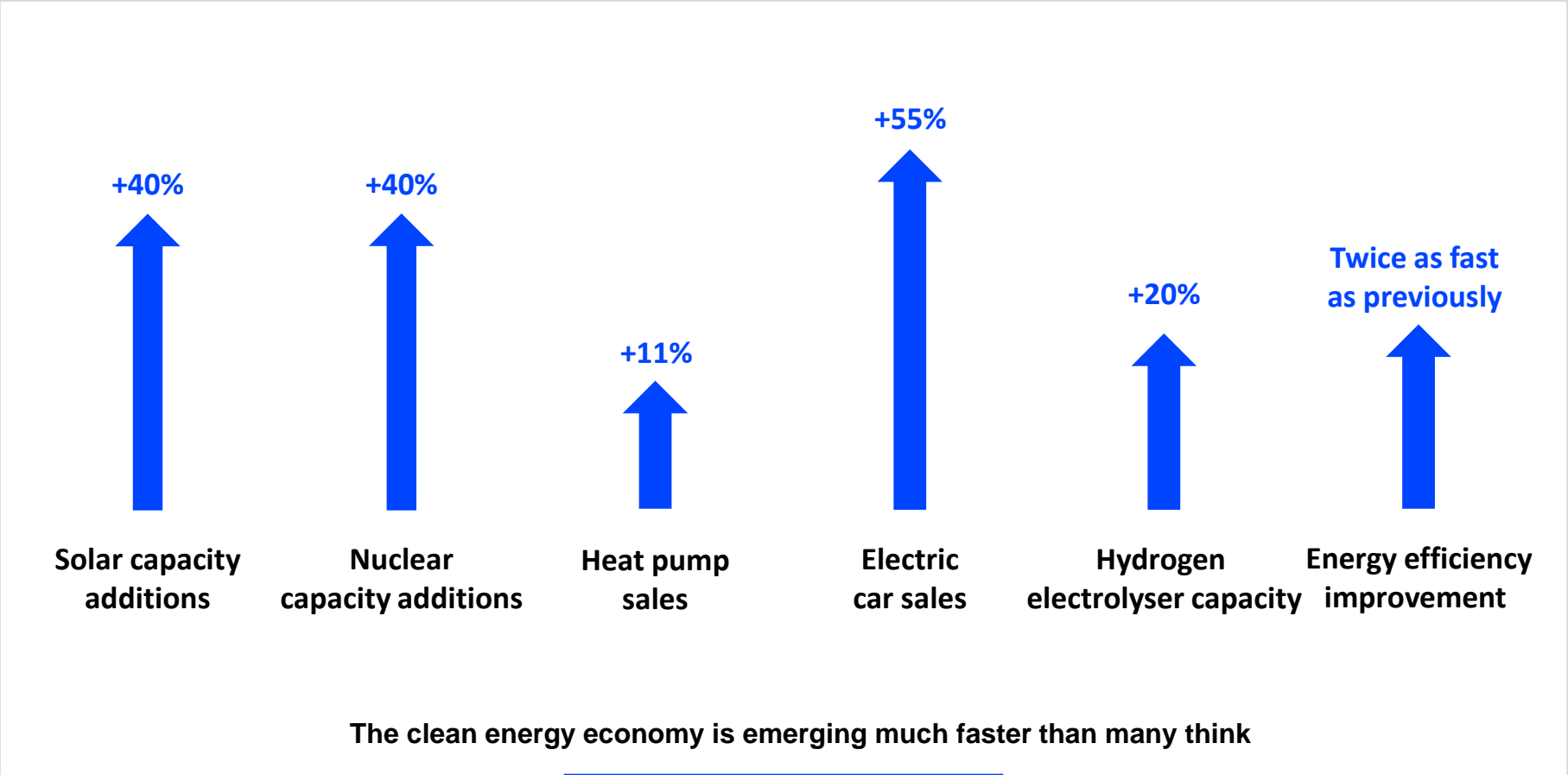
# Peak fossil fuel demand is coming this decade

Fossil fuel demand in the Stated Policies Scenario, 1900-2050



**Today's policy settings are now sufficiently strong that they produce a distinct peak in fossil fuel use before 2030**

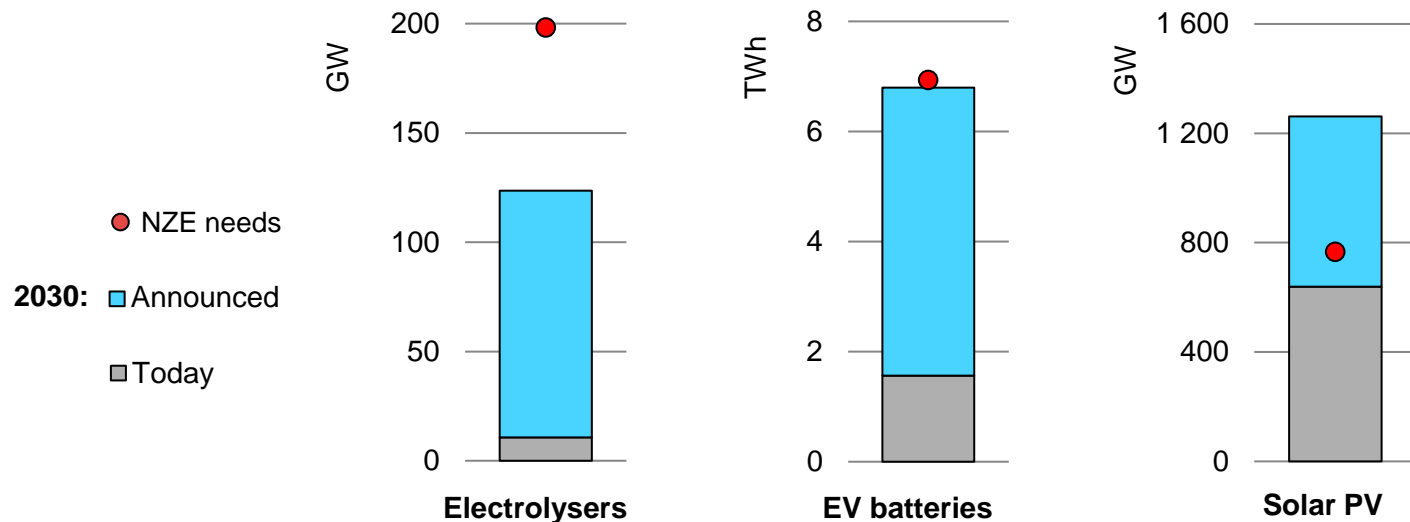
# Global energy transitions have been supercharged over the last year



The clean energy economy is emerging much faster than many think

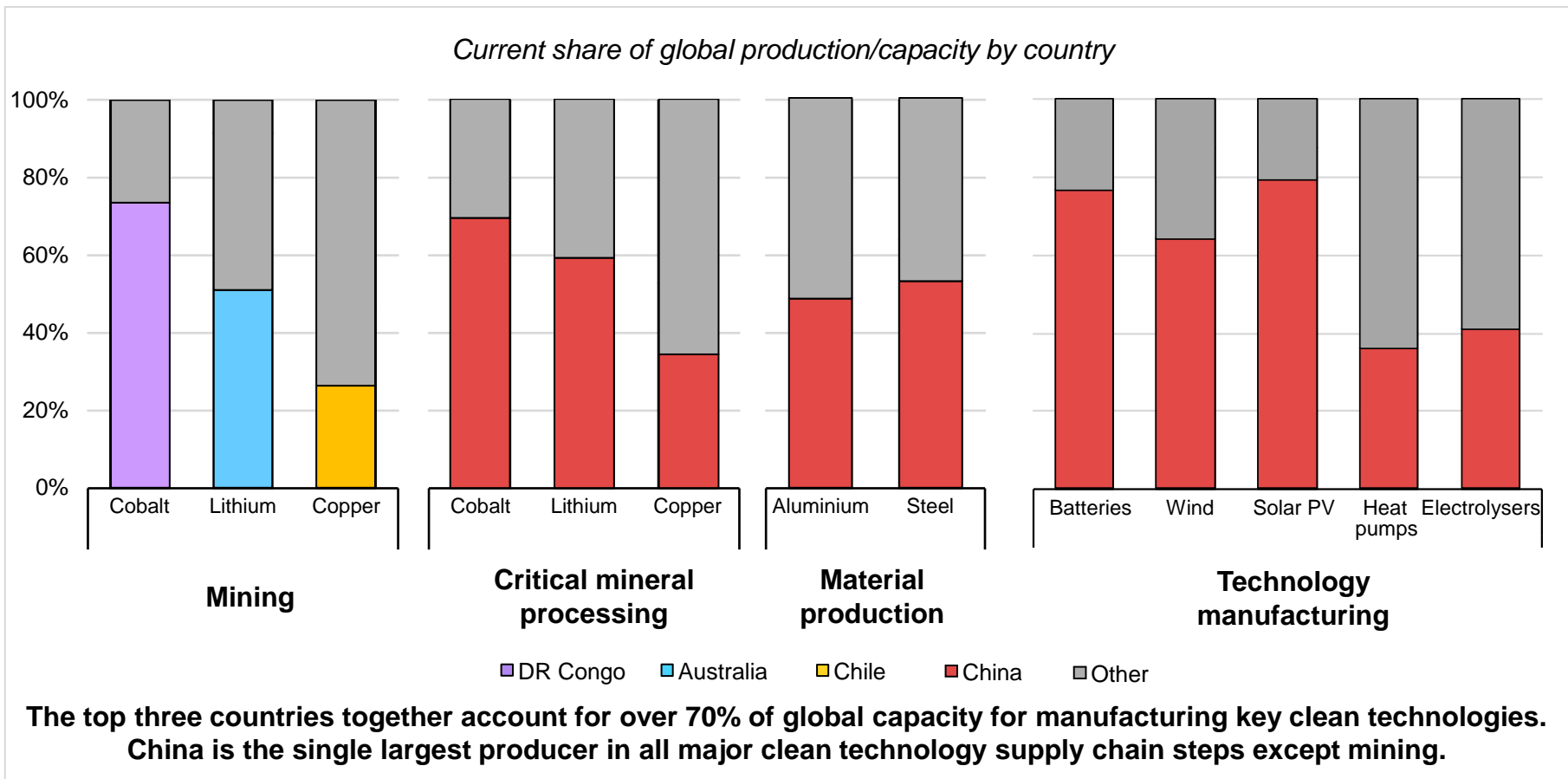
# Investment in clean technology supply chains is on the rise

Annual manufacturing capacity for selected clean technologies

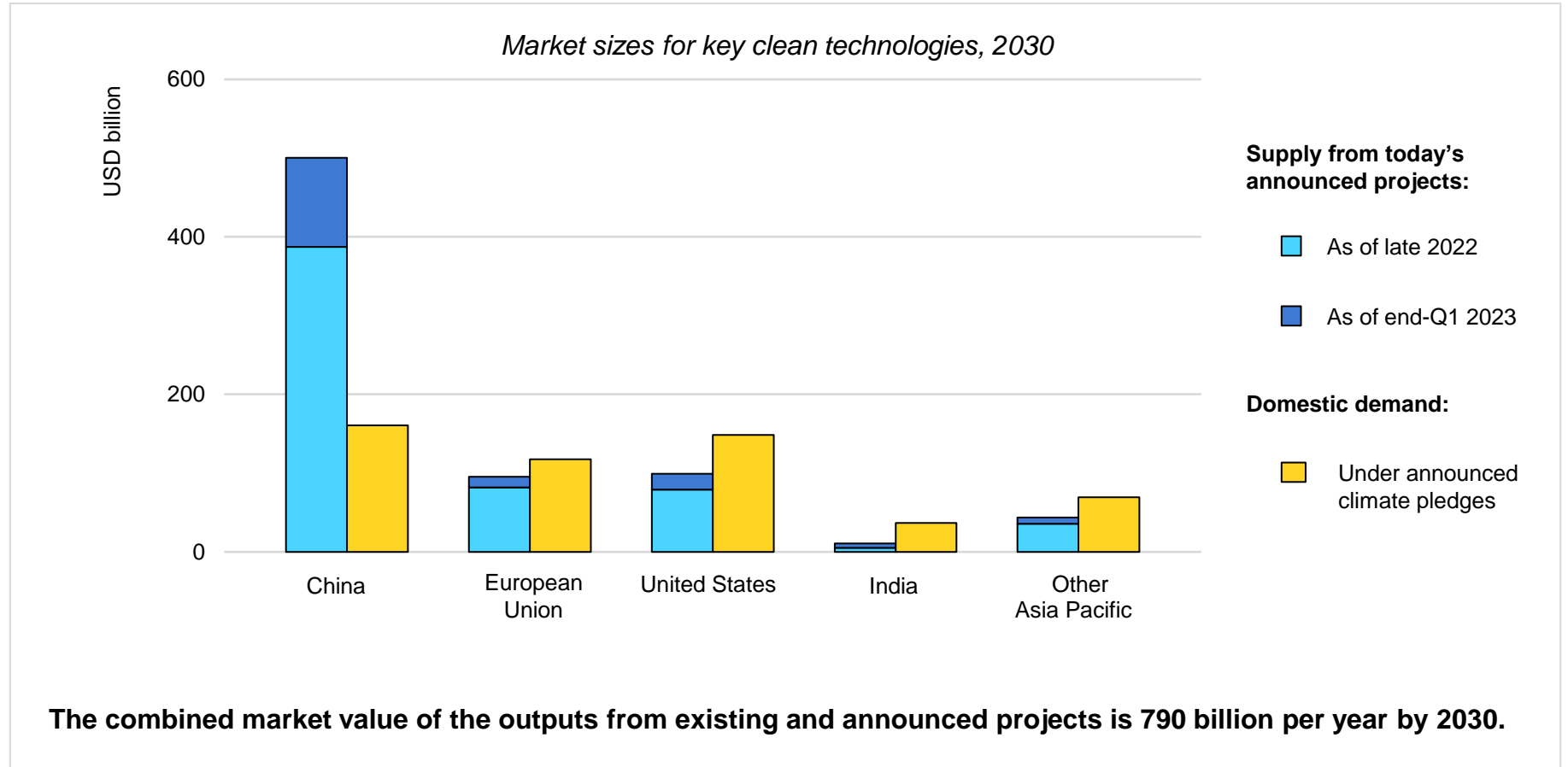


**Clean technology manufacturing is increasing rapidly, owing in part to short project lead times. If they materialise, announced manufacturing projects would fulfil two-thirds of the investment needs to 2030 in the NZE.**

# Clean technology supply chain concentration risks extend beyond mining

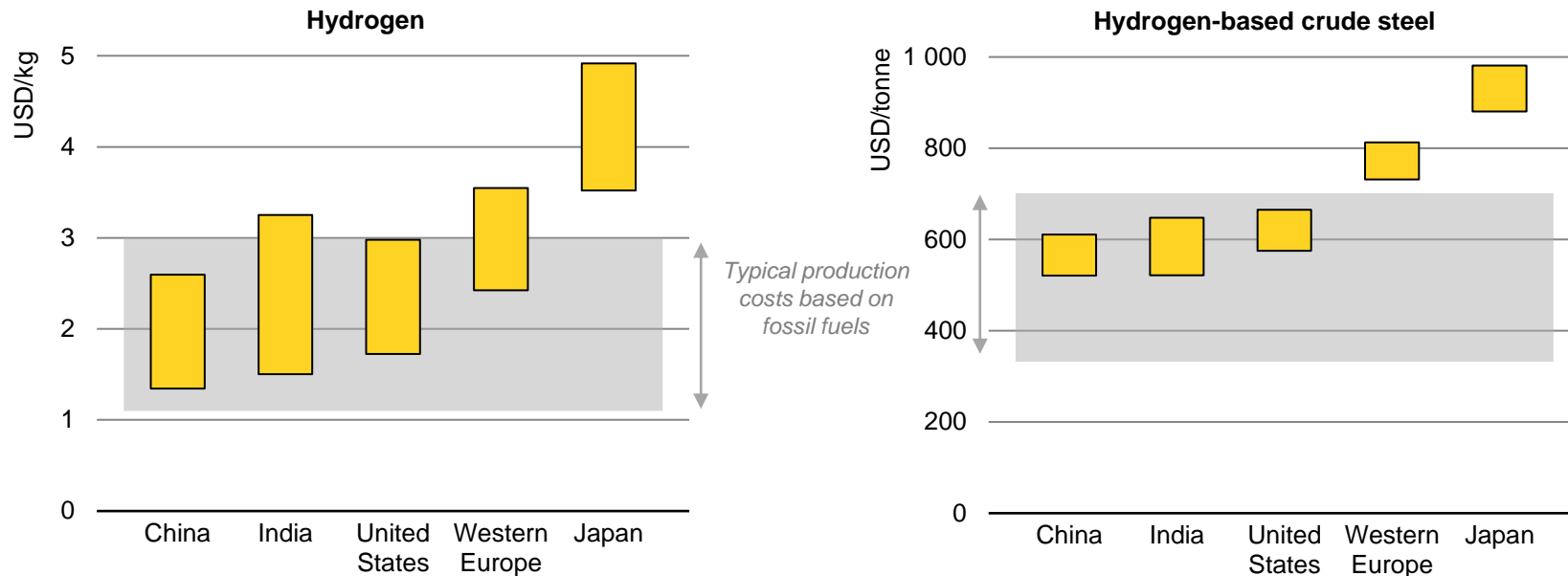


# Markets for clean technologies constitute a major opportunity



# Competitiveness is a key consideration for industrial strategies

*Production costs using electrolysis and variable renewables under announced climate pledges, 2030*



**Climate goals and innovation policy are driving new project announcements for energy intensive commodities, but persistent cost competitiveness gaps indicate the need for strategic partnerships and international collaboration.**



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