

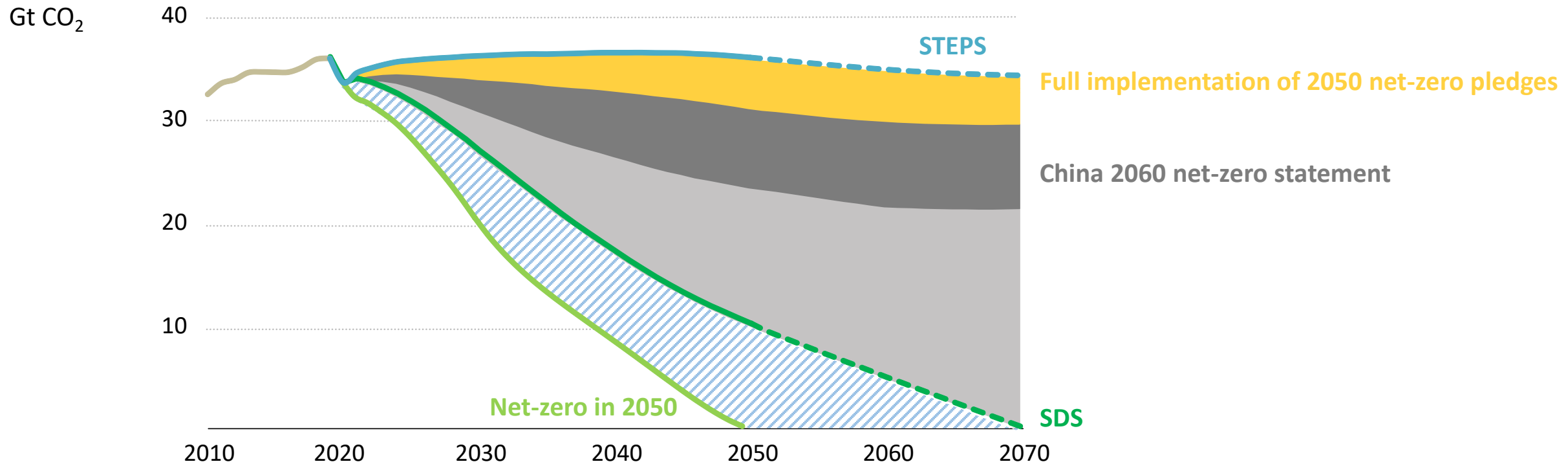


Energy Outlook

Keisuke Sadamori, Director, Energy Markets and Security

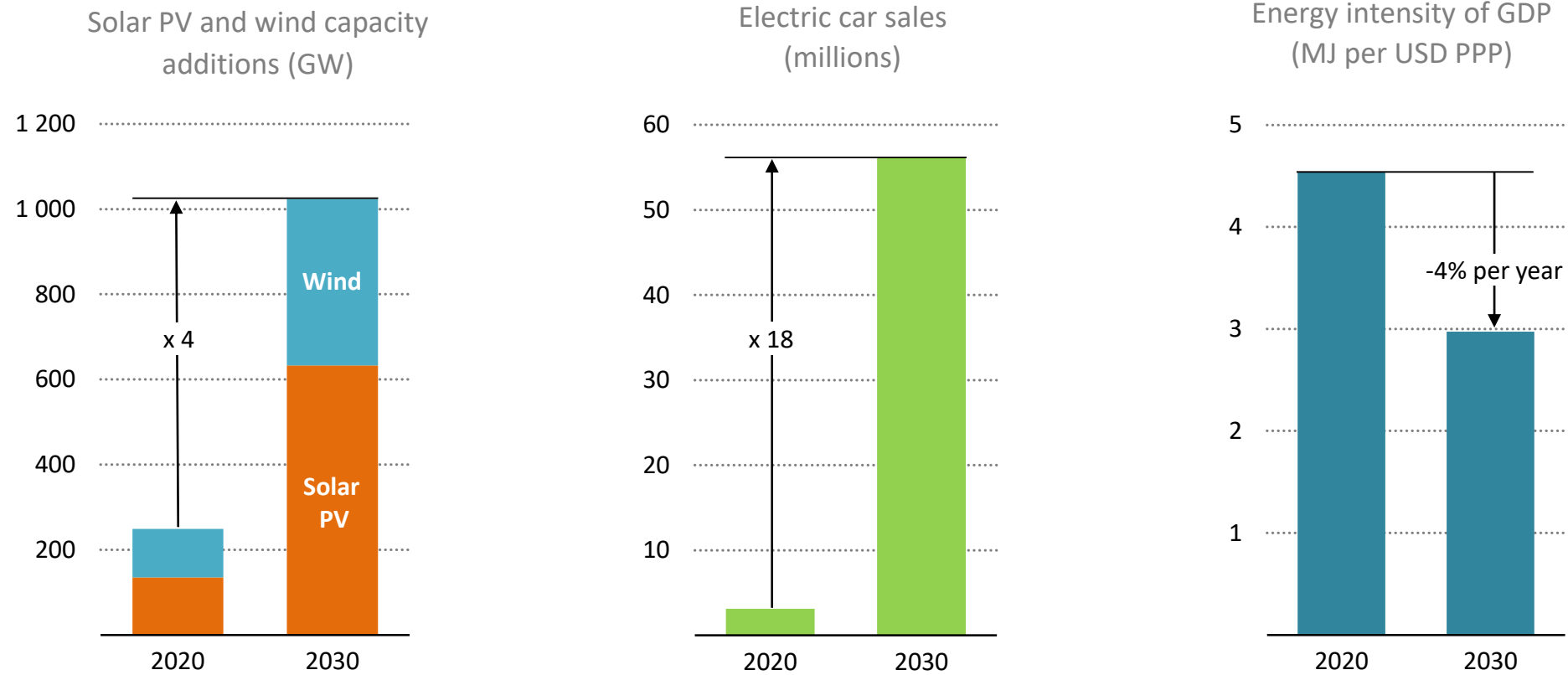
Baker Botts Annual Energy Summit, 29 September 2021

Energy and emission path depends on policy strength



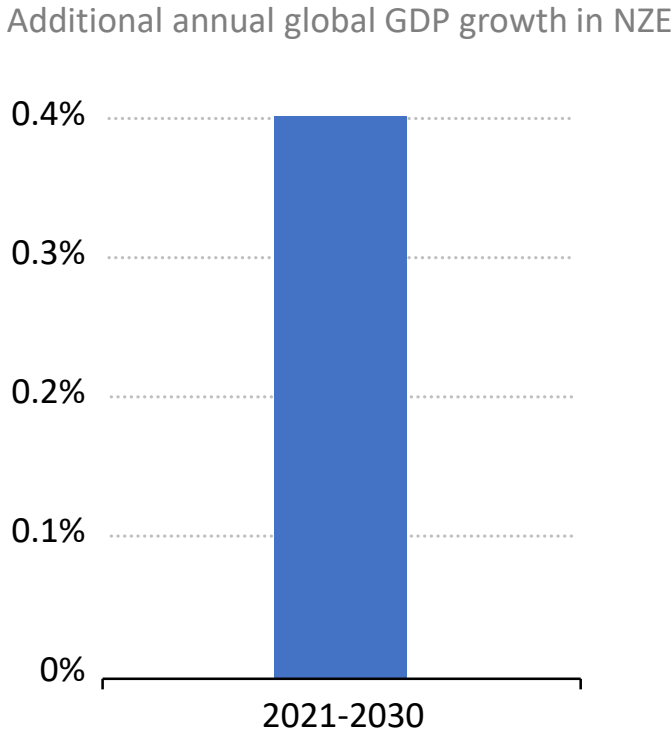
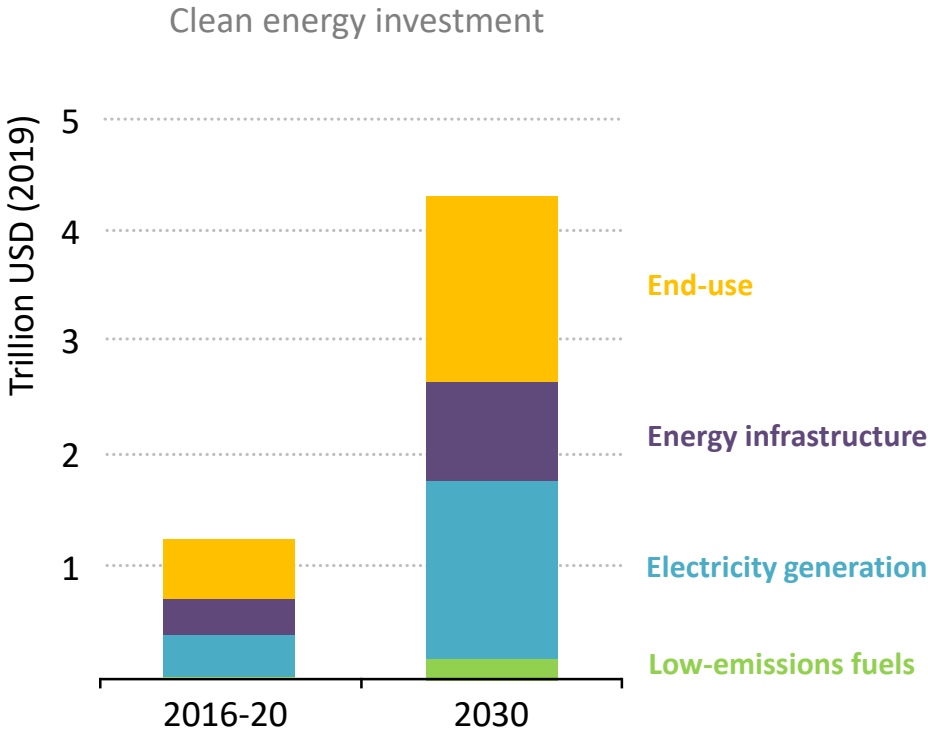
The speed of energy transition is not certain, but many countries covering 70% of global emissions are committed to net zero emissions by 2050 or 2060. Any supply disruption attributable to transition may stall the progress.

Make the 2020s the decade of massive clean energy expansion



Technologies for achieving the necessary deep cuts in global emissions by 2030 exist, but staying on the narrow path to net-zero requires their immediate and massive deployment.

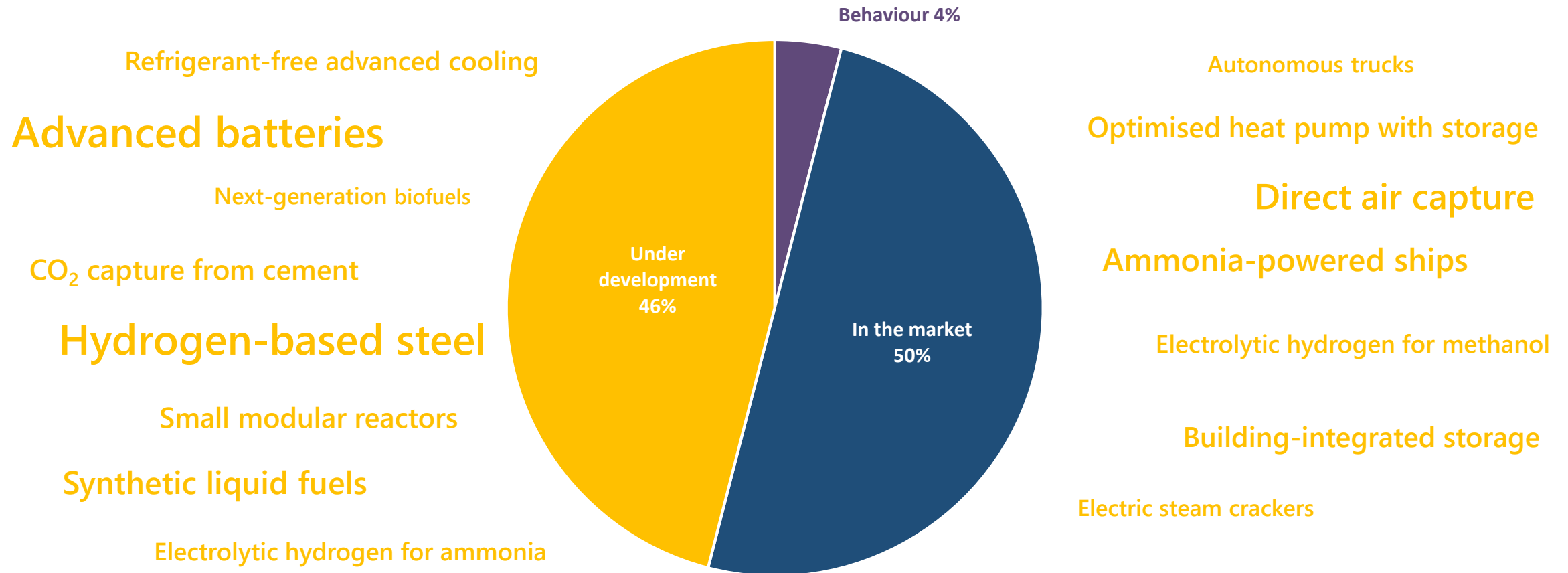
Drive a historic surge in clean energy investment



Annual clean energy investment more than triples by 2030 in the NZE scenario, driving an average 0.4% per year increase in global GDP to 2030 & speeding the recovery from the COVID-19 shock

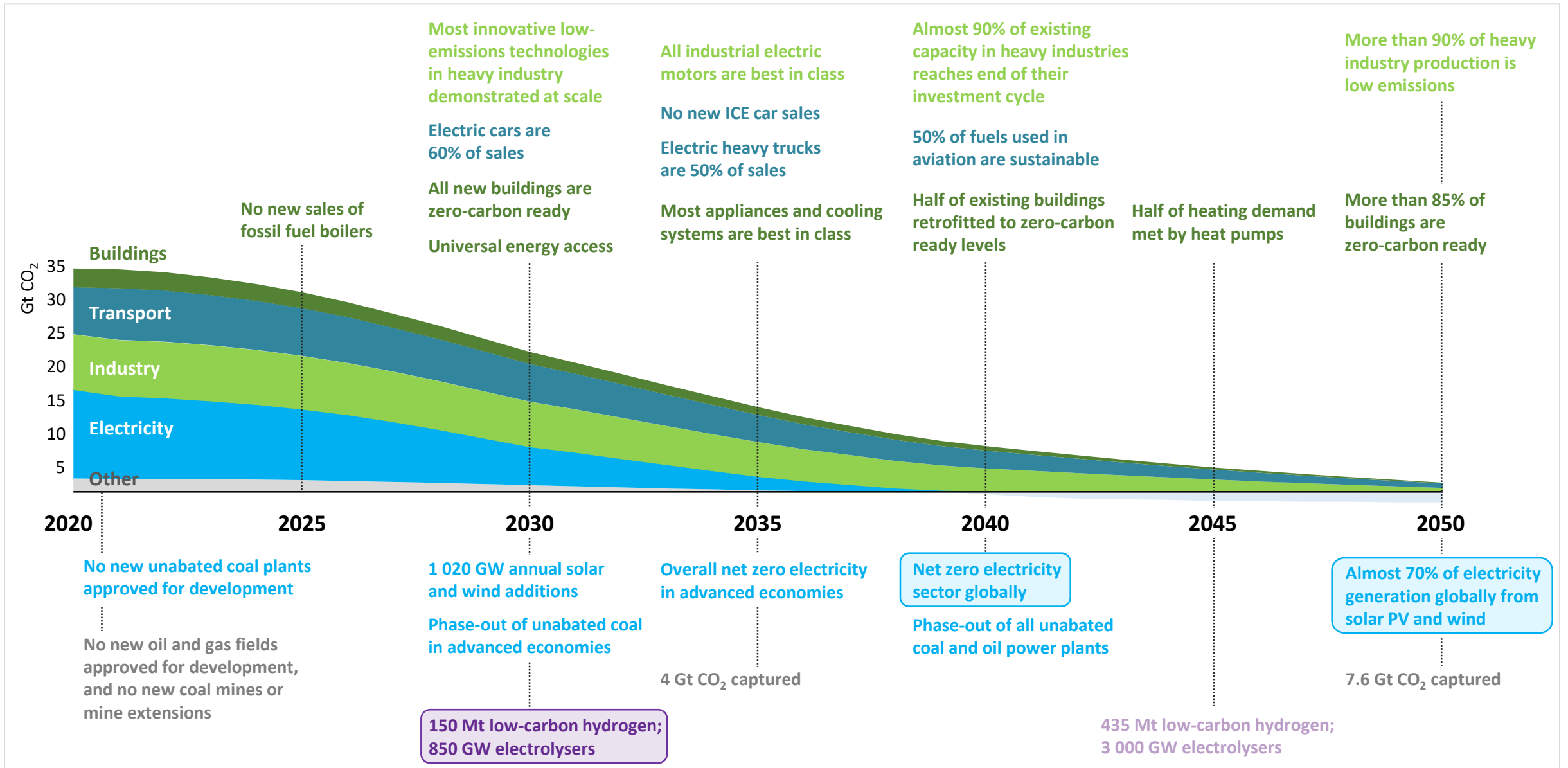
Prepare for the next phase of the transition by boosting innovation

CO₂ savings by technology maturity in 2050, NZE scenario

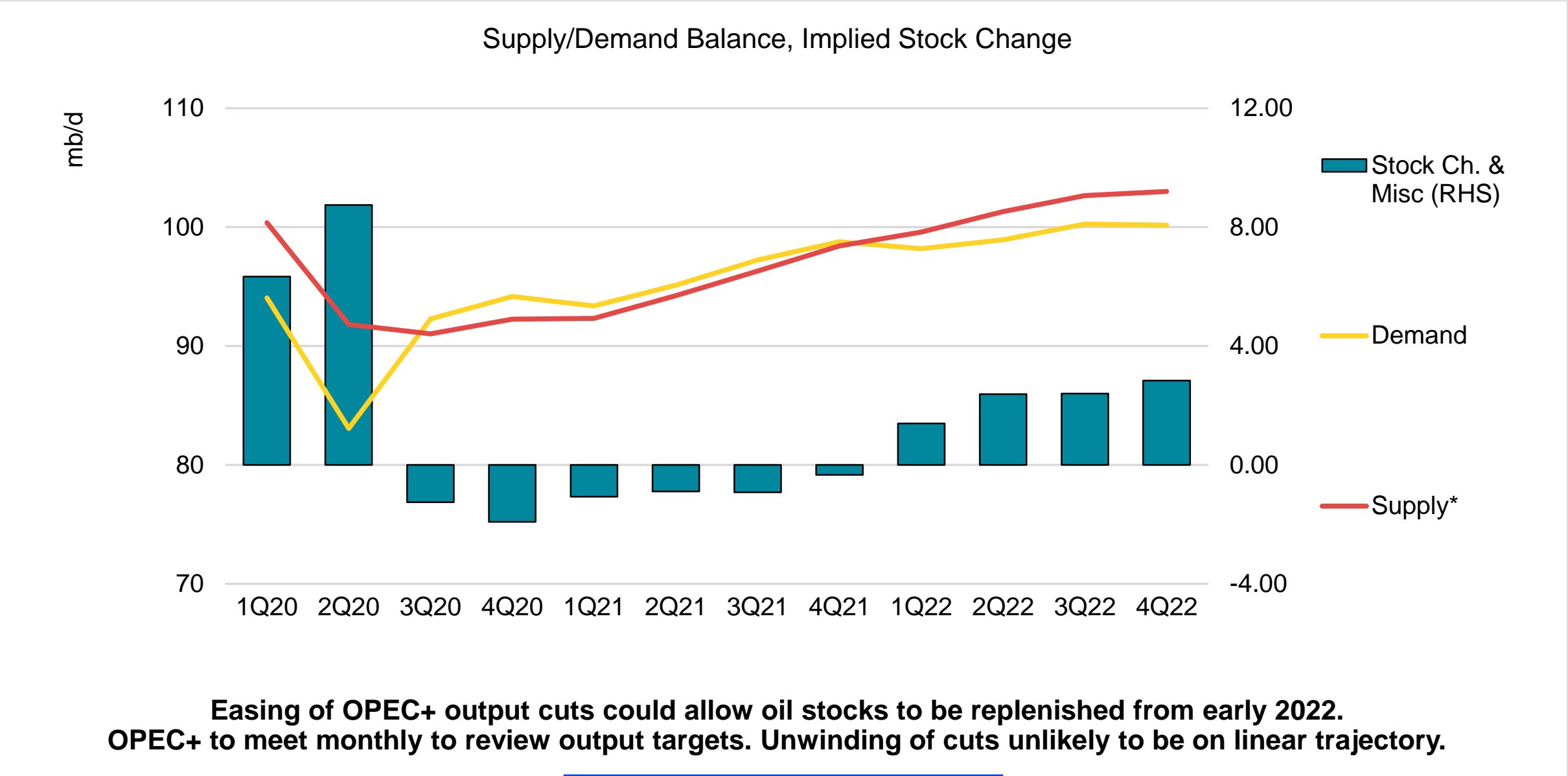


Unlocking the next generation of low-carbon technologies requires more clean energy R&D and \$90 billion in demonstrations by 2030; without greater international co-operation, global CO₂ will not fall to net-zero by 2050.

Set near-term milestones to get on track for long-term targets



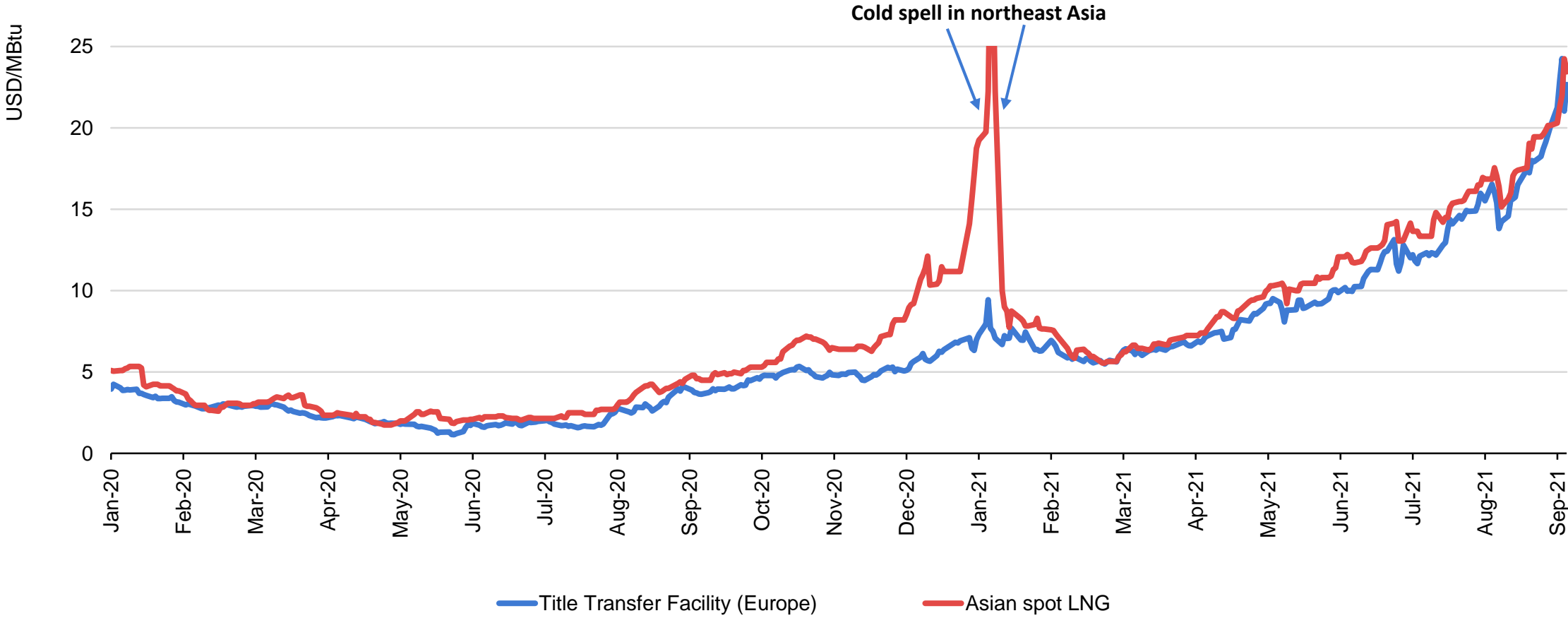
Market could shift closer to balance from October



Natural gas prices recovered strongly in 2021 from their 2020 lows



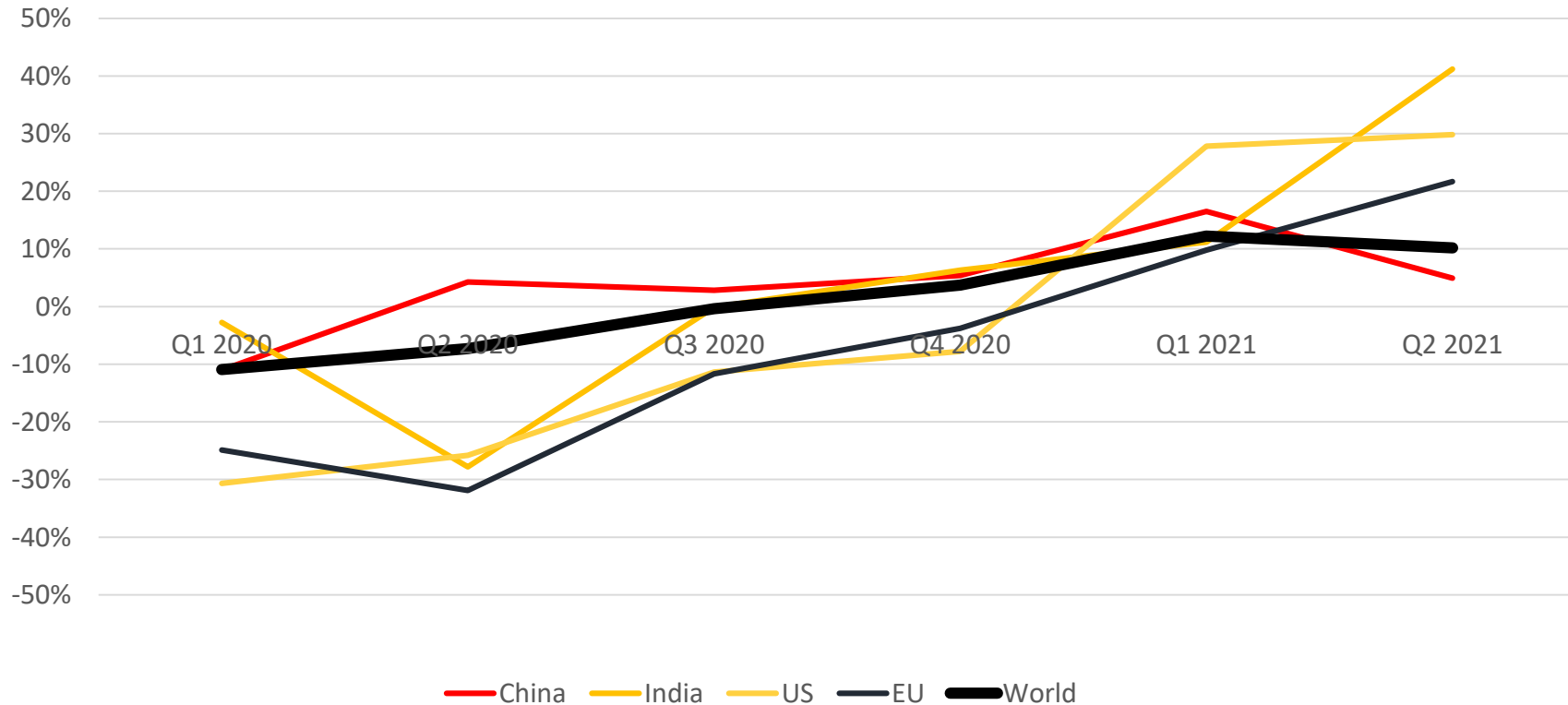
Asian spot LNG and European hub prices (2020-2021)



Economic recovery together with weather-driven demand growth and tighter than expected supply led to a sharp increase in spot gas prices both in Asia and Europe.

Global coal demand recovery continues in H1 2021

Year-on-year quarterly change of coal consumption by region in 2020 and H1 2021



The recovery of coal demand starting in the second half of 2020 continues in the first half of 2021, with growth in every single major consuming country/region of the world.

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