



The future of carbon pricing

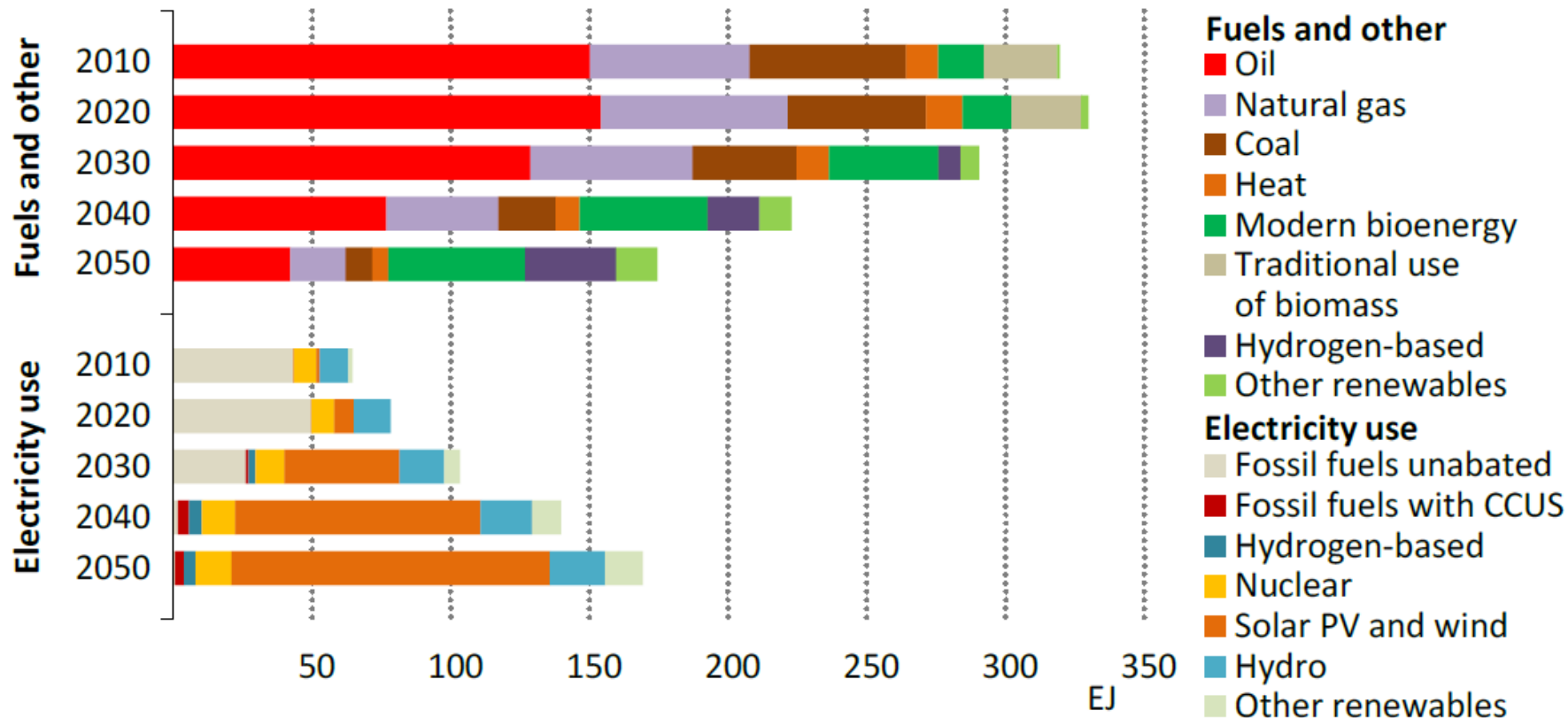
Tom Howes, Head of Energy and Environment Division, International Energy Agency

8 June 2021

carbon pricing can be difficult to implement ...



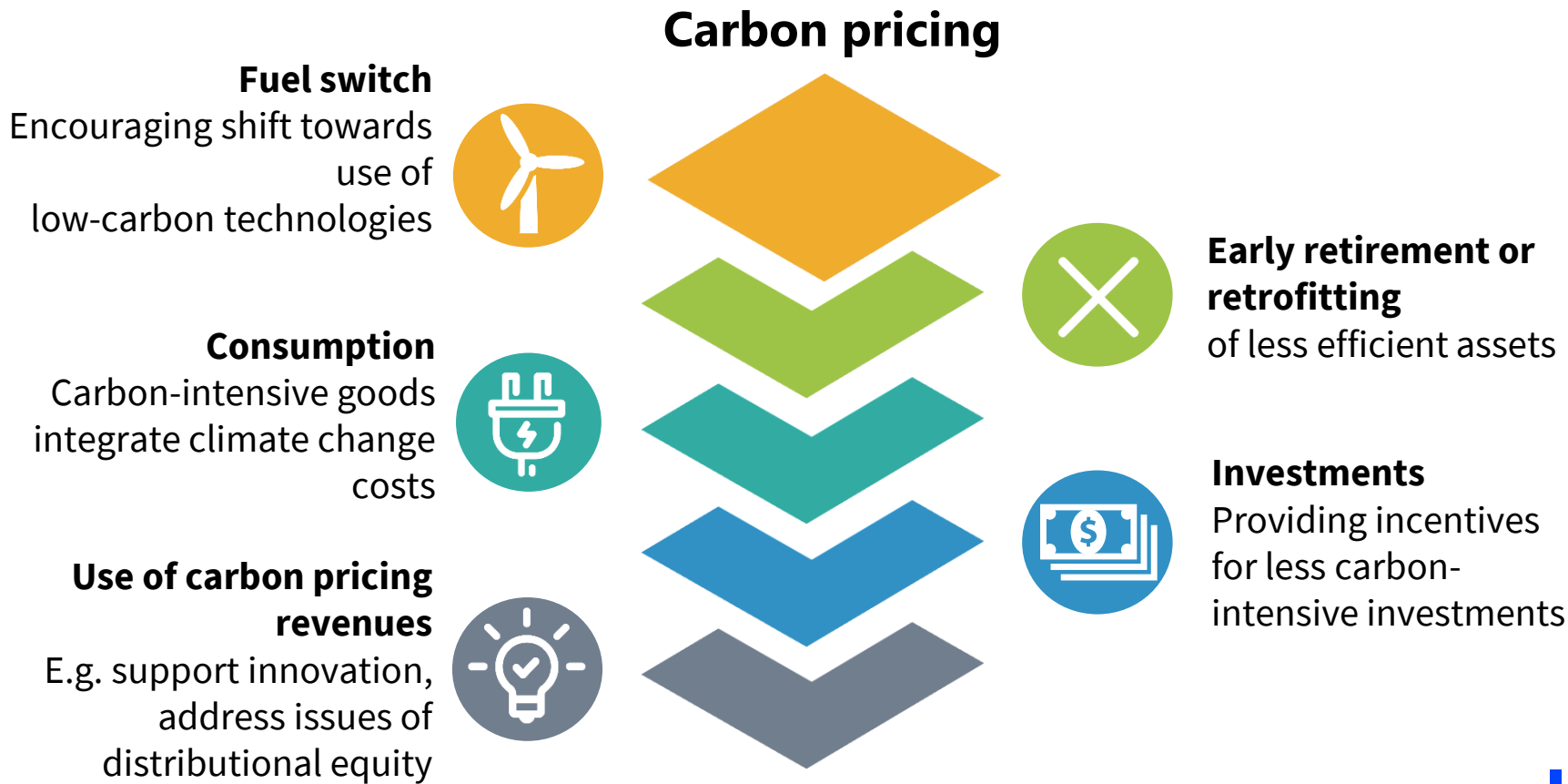
Global total final consumption by fuel in the NZE



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The share of electricity in final energy use jumps from 20% in 2020 to 50% in 2050

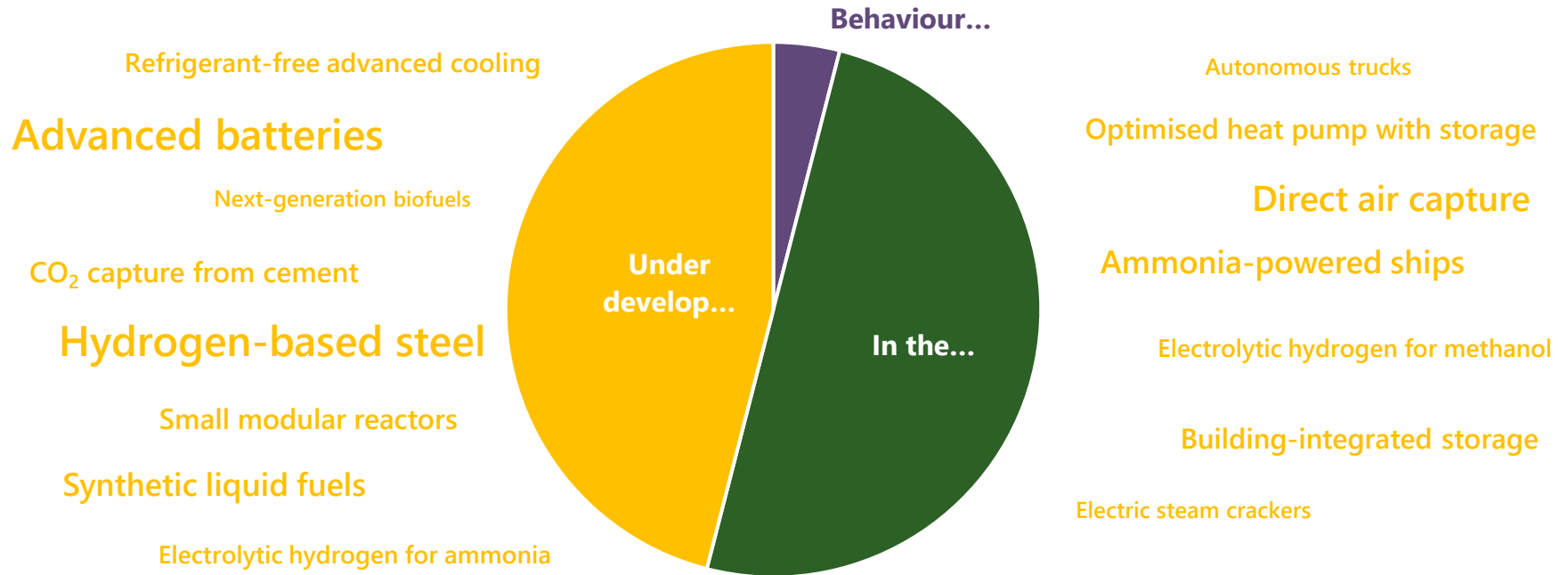
Carbon pricing can trigger multiple layers of actions



Prepare for the next phase of the transition by boosting innovation

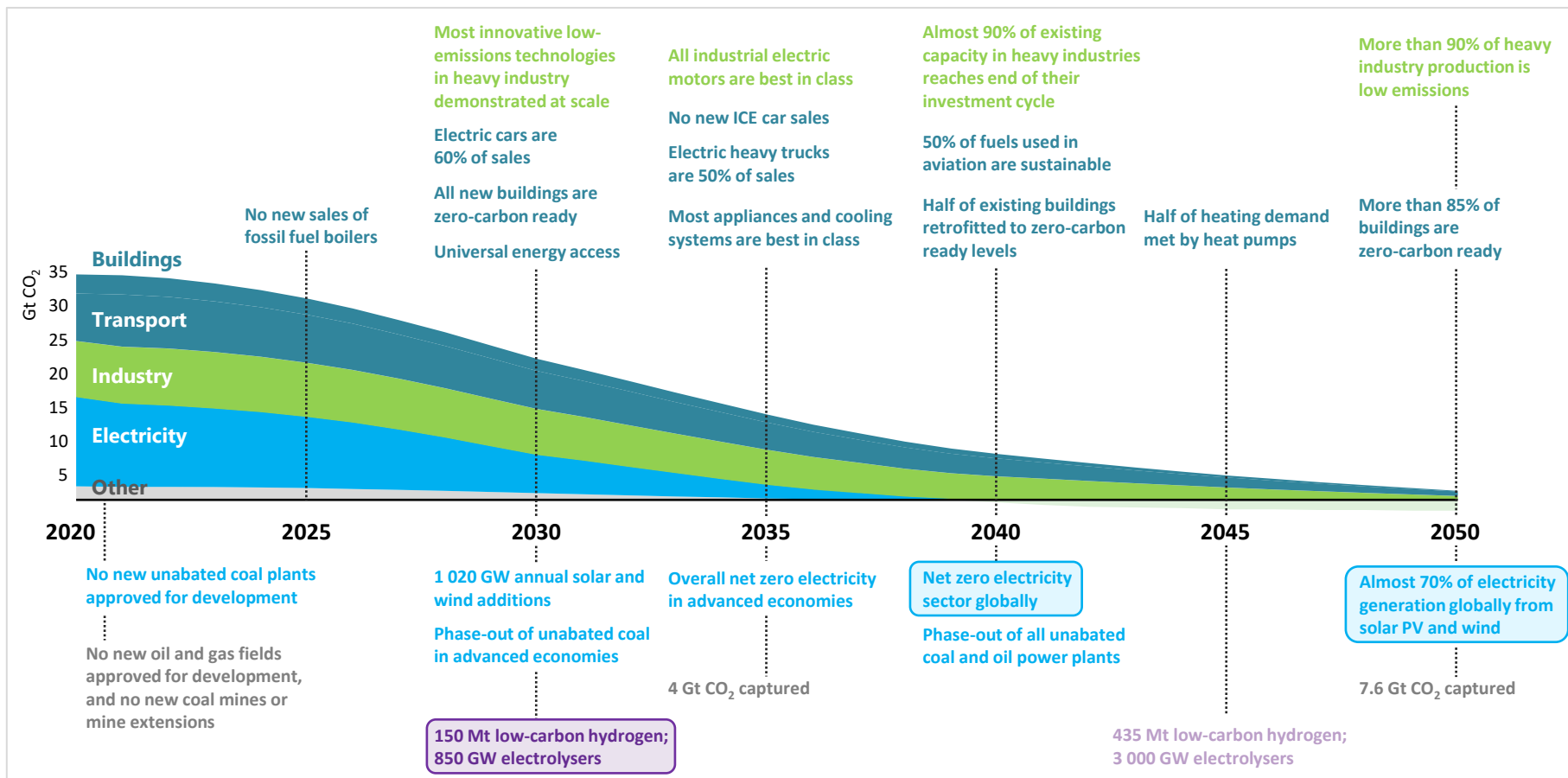


CO₂ savings by technology maturity in 2050, NZE scenario



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



Examples of work of IEA's Environment and Climate Change Team on carbon pricing



- Since 2017, work with the Department of Climate Change (Ministry of Ecology and Environment) to support development of **China's** National ETS.
- Report to assess the effects of the proposed ETS allowance allocation on coal-fired power plants ([2020](#)) and full analysis of ETS design impact on coal-fired power with Tsinghua University (*April 2021*)



- Since 2020, work with the **Thailand** Greenhouse Gas Management Organisation (TGO) to explore a) the challenges and opportunities of carbon market for the power sector (*August 2022 article, March 2021 full report*) and b) the integration of carbon market with other clean energy policies (*2021*)

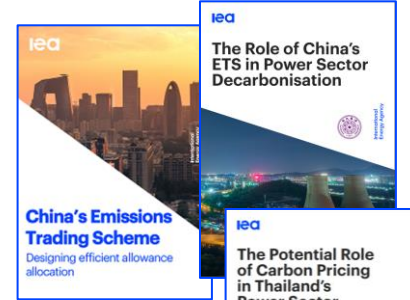
- **ASEAN** Strategic Partner, working on carbon pricing, power trading, planning, investment



- Since 2020, work with the National Treasury and Department of Mineral Resources and Energy on integration of **South African** carbon tax policy package with clean energy transition incentives.
- Assessment of emissions intensity benchmark for power plants to drive enhanced performance (*June 2020*) and reforms to liquid fuel taxation (*2020*).



- Report "Implementing Effective ETS" - Analysis of **international experiences with ETS** implementation, with focus on the power and industry sectors ([2020](#)):
 - Lessons learnt for implementing effective and efficient ETS
 - Guiding questions for policy makers



IEA work on international carbon markets and Article 6

- OECD-IEA **Climate Change Expert Group (CCXG)** within STO/ECC:
 - Technical papers
 - Negotiators and experts convening at the CCXG Global Forum twice per year
 - Supporting COP Subsidiary Body 2021 discussions





<https://webstore.iea.org/implementing-effective-emissions-trading-systems-lessons-from-international-experiences>