



Electrification prospects

Euan Graham

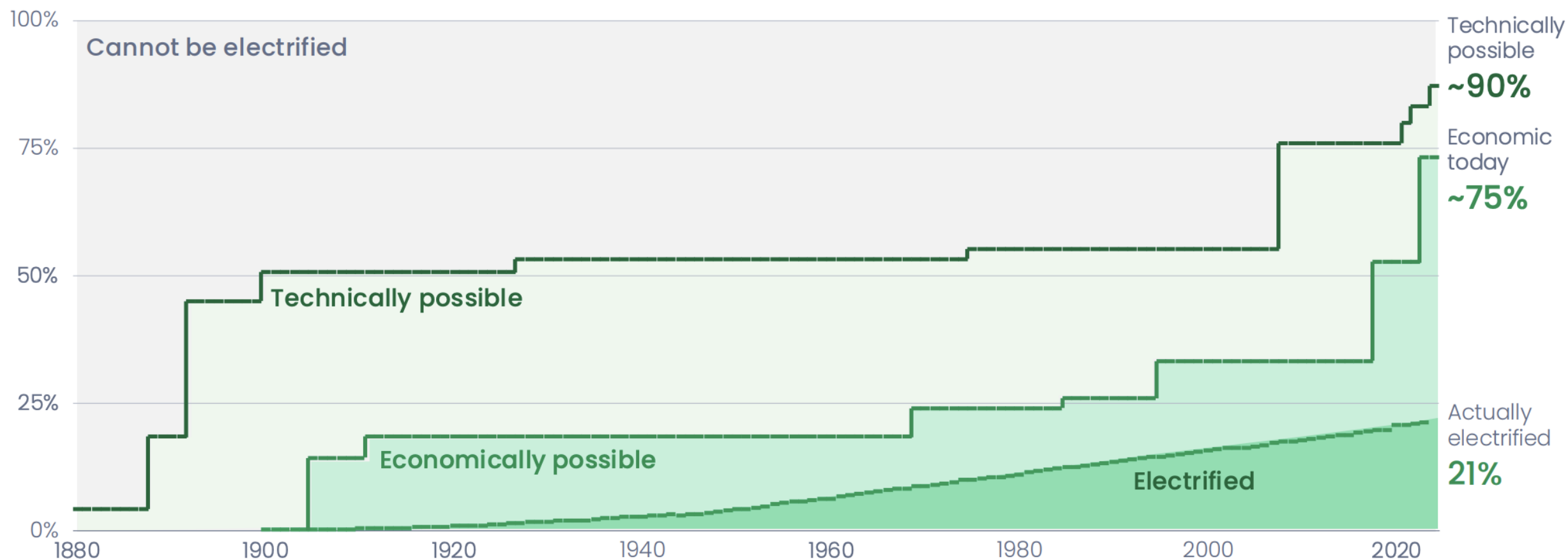


EMBER

The long march of electrification

Three quarters of final energy demand can be electrified economically

Share of final energy

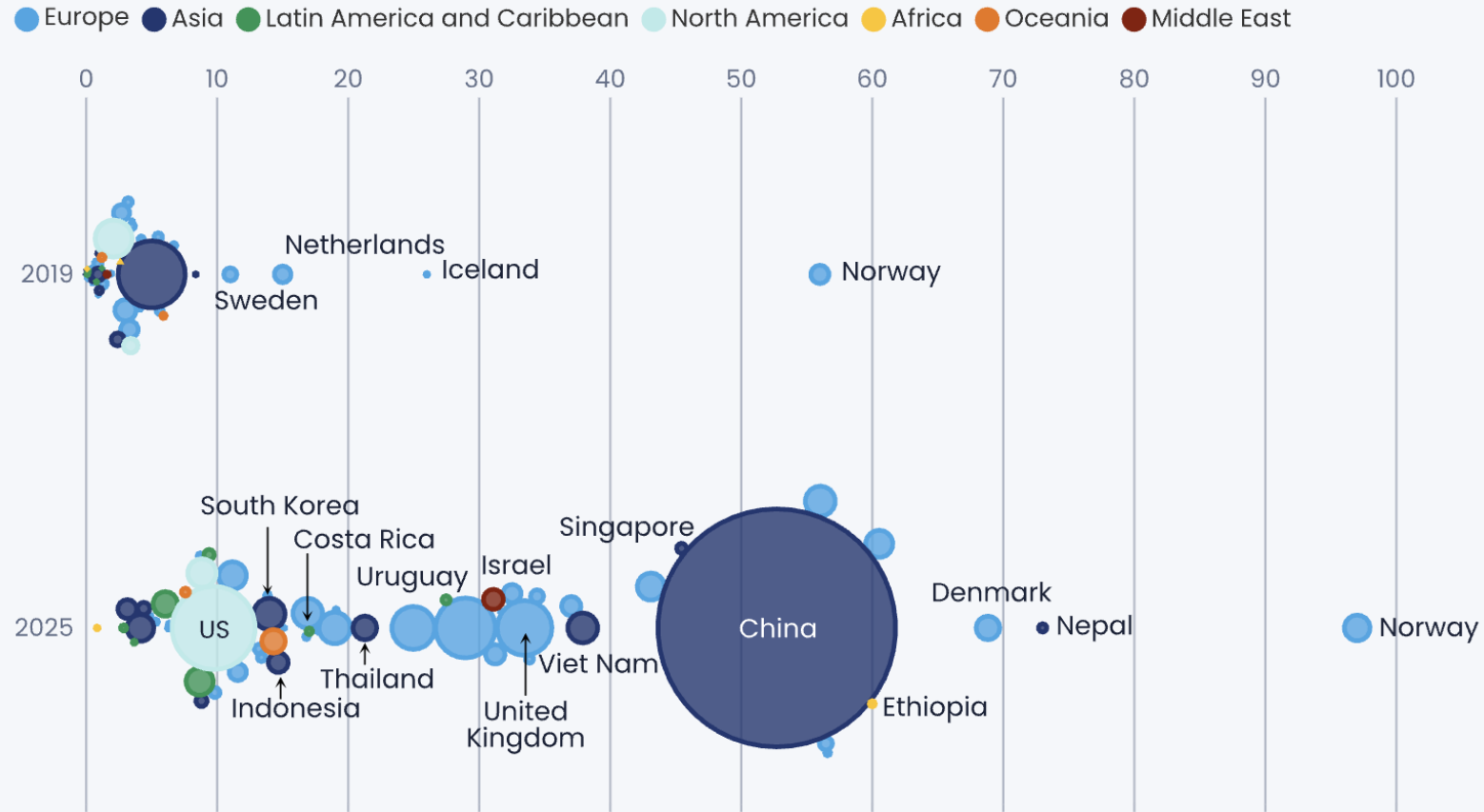


Sources: IASA; IEA; Devine; HYBRIT; Coolbrook; BASF; SABIC; Linde; NEEP; ICCT; Ember analysis • Note: "Technically possible" dates the first working electric route for each job, at pilot scale or better; "economic" is the first year the electric solution beat the fossil incumbent on lifetime cost.

The race to 100% EV sales is well underway

EV share of new passenger car sales (%)

Bubble sizes are relative to total EV sales



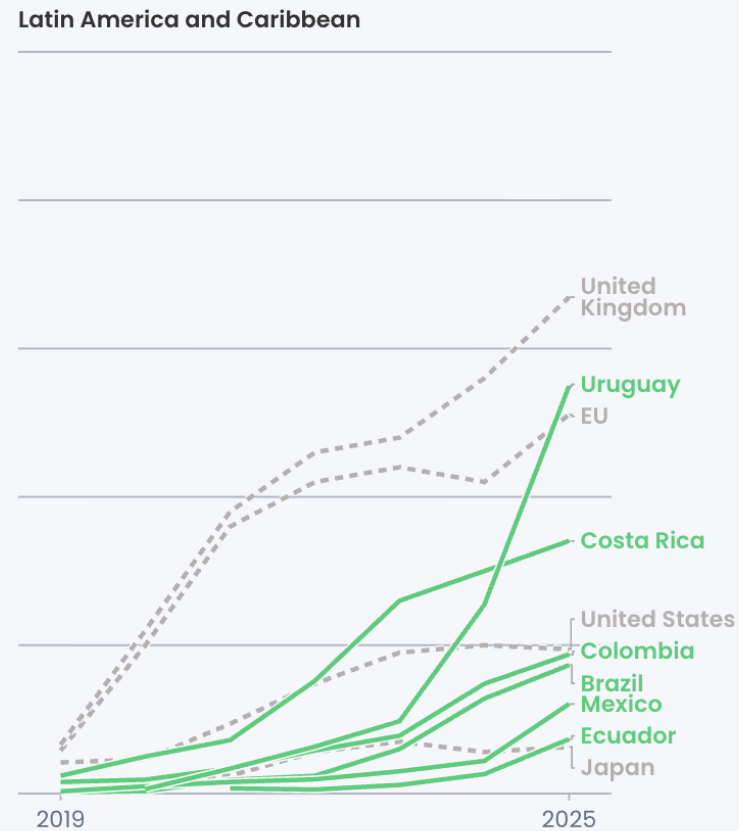
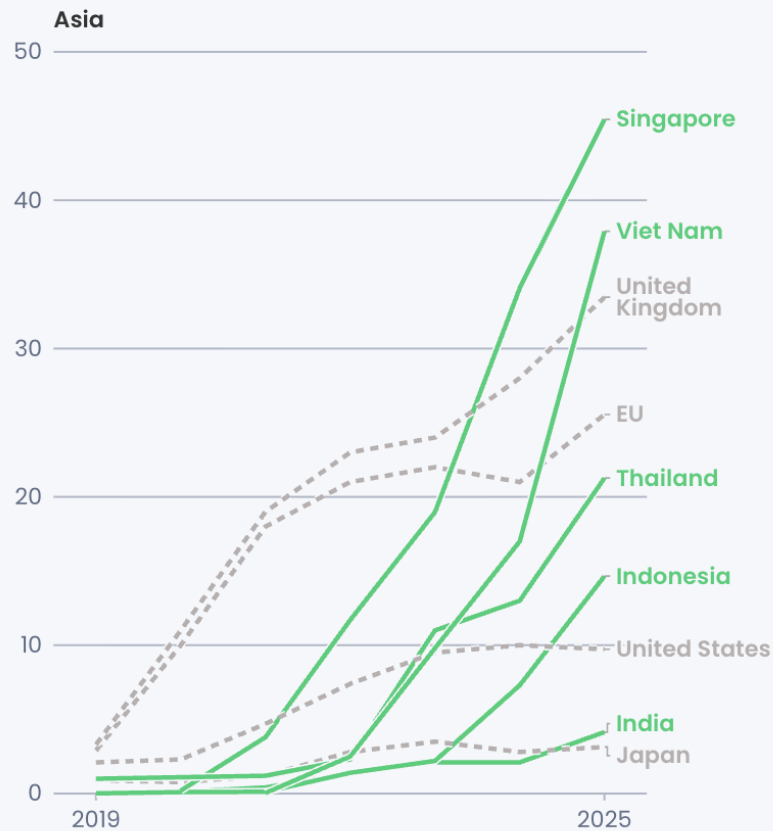
Source: IEA (2019 data), Ember analysis of publicly available national data for Jan–Oct 2025.

EVs include plug-in hybrid electric vehicles and battery electric vehicles. Sales figures in 2025 are an estimate assuming the same year-on-year change seen so far in 2025 continues until the end of the year. For Ethiopia and Nepal, 2024 data is used as more recent annual data is not publicly available.

Legacy auto markets are being overtaken as new EV markets begin to take off

EV share of new passenger car sales (%)

Grey lines show EV sales shares in select advanced economies for comparison



Source: IEA (to 2024), available national data for Jan-Oct 2025

EVs includes plug-in hybrid electric vehicles and battery electric vehicles.



What next?

- Fossil supply disruptions of this scale change the course of our energy system
- Electric transport already competitive – trucking is now the new frontier
- Supply-side regulations, financing, and charging network development can accelerate change