

AFTERWARD

ACCELERATING THE
ENERGY TRANSITION

ERICA 2024

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•The accelerating pace of the energy transition

•*Insights from our latest work*

•January 2024



Mini grids provide remote villages with economic energy access

•Mokoloki Town Mini Grid, Nigeria



China is pioneering high penetration 100% renewable grids

• China's National Pilot Area in Zhangbei County, Zhangjiakou (Xinhua)



Fairweather Apartments demonstrate industrialized deep energy retrofit approach

Salem, Massachusetts



Palava City showcases livable, affordable, resilient compact urban form

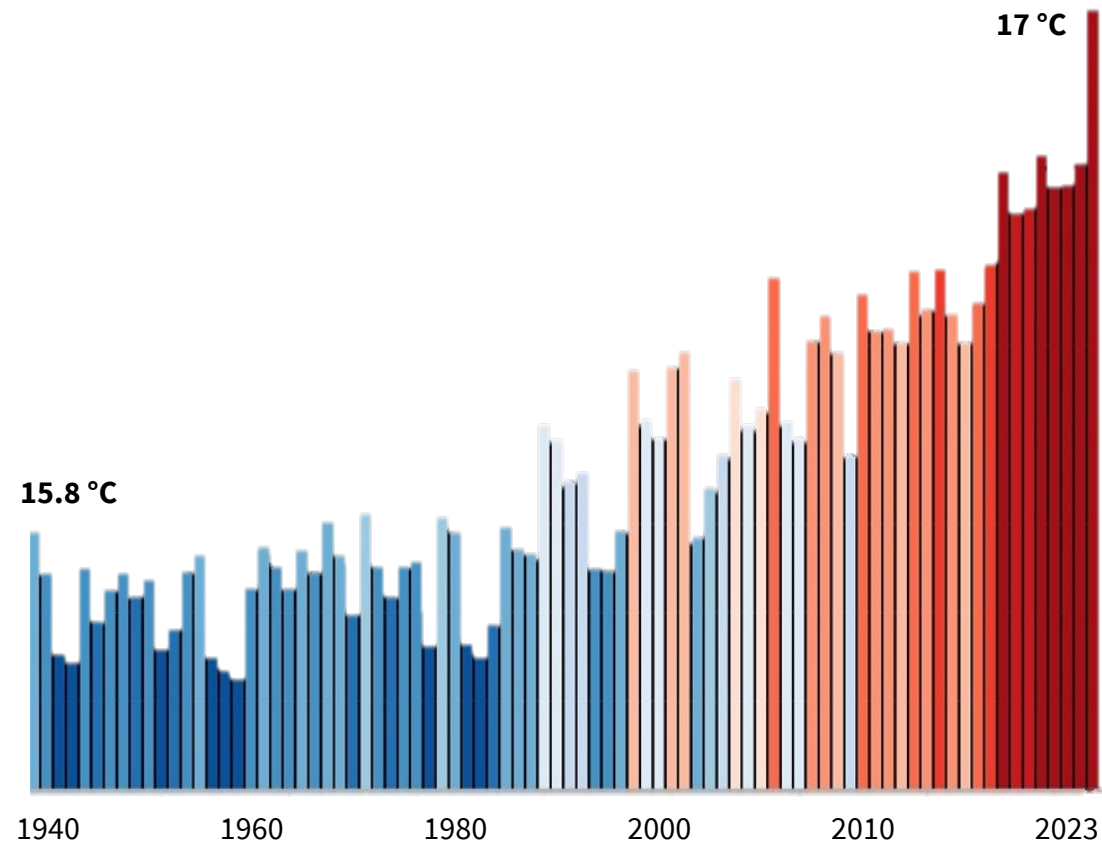
Partnership with Lodha Group in India



We are in a race -

On one hand, we are close to **breaching climate tipping points...**

Record temperatures¹

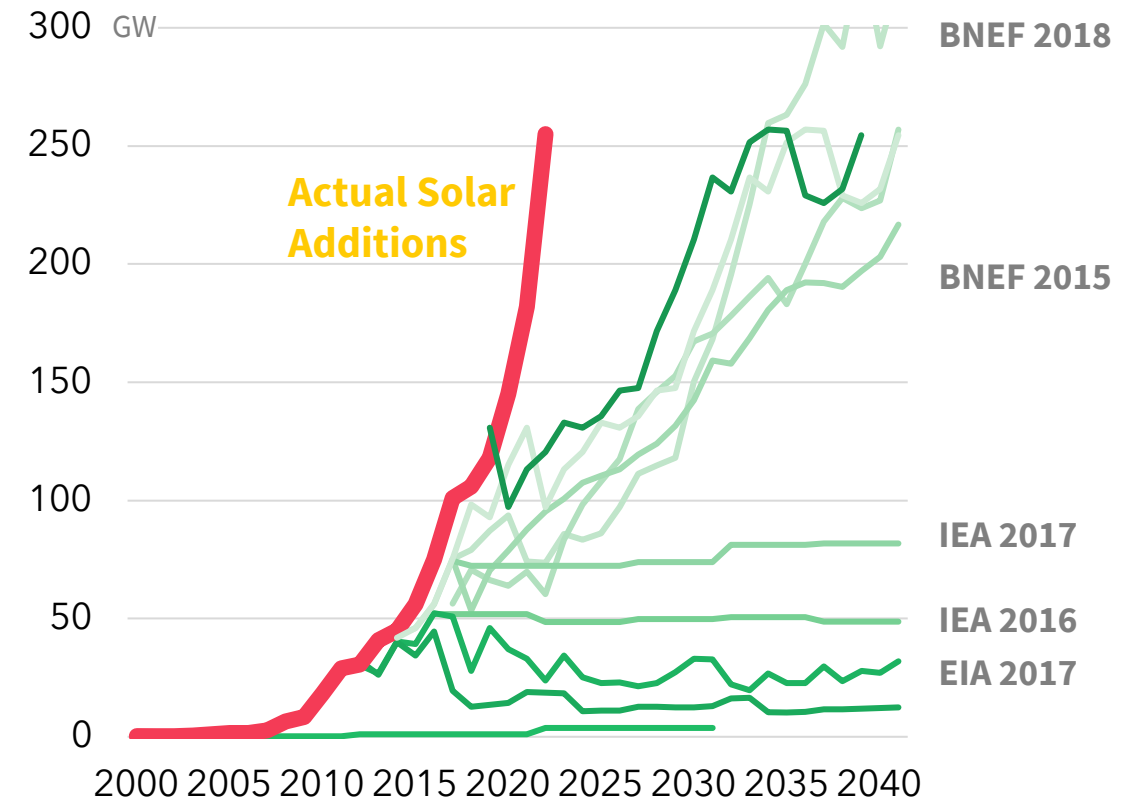


¹ Global Surface Air Temperature in July

•Source: C3S, IEA, BNEF, RMI analysis

•...on the other, **climate solutions** are scaling more rapidly than most analysts thought possible.

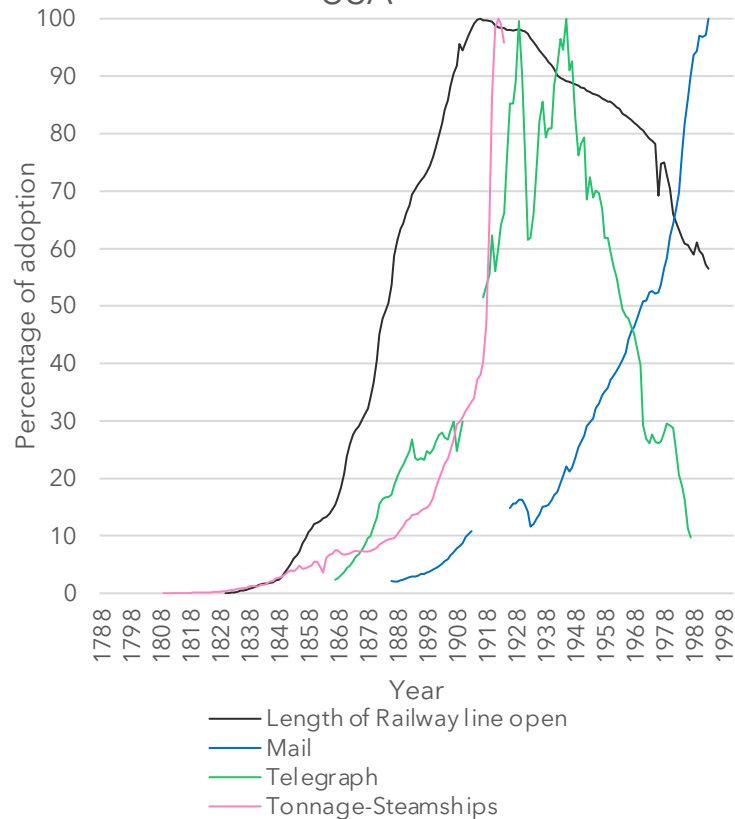
Actual solar additions vs consensus outlooks



We have seen exponential change before

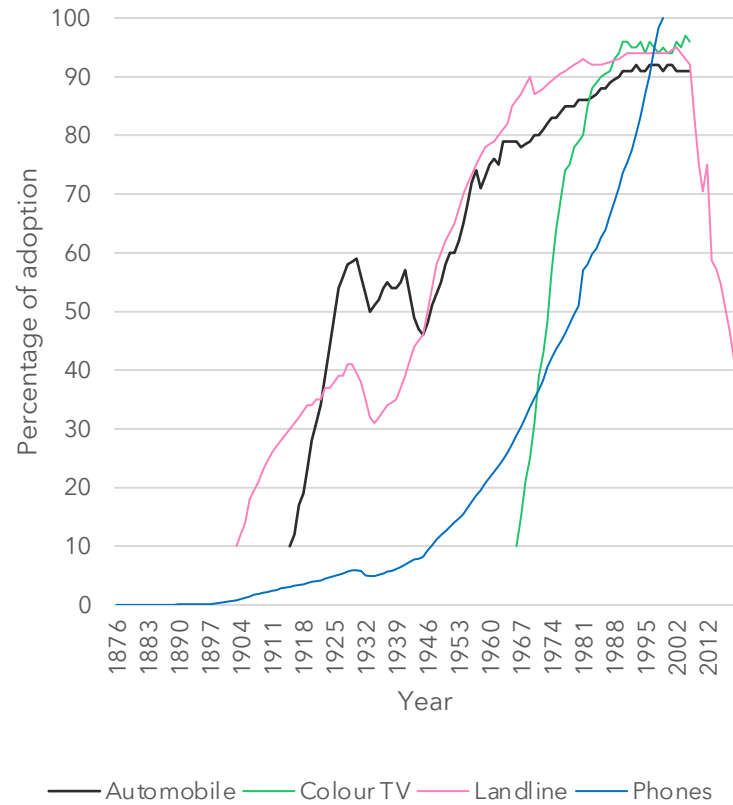
Industrial Revolution

Adoption of key technologies during the industrial revolution, USA



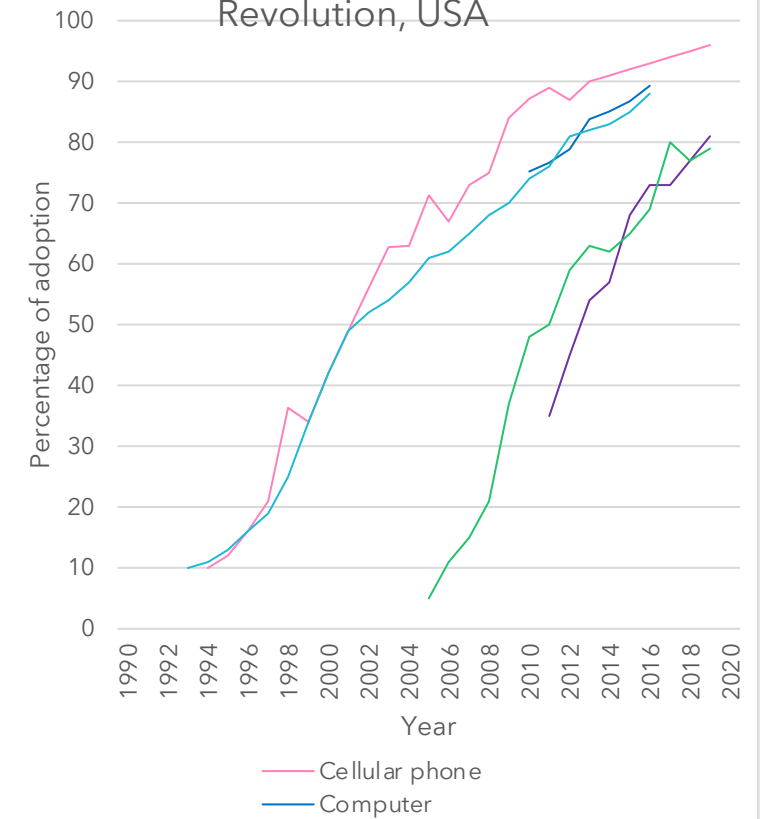
Age of Oil

Adoption of key technologies during the Age of Oil, USA



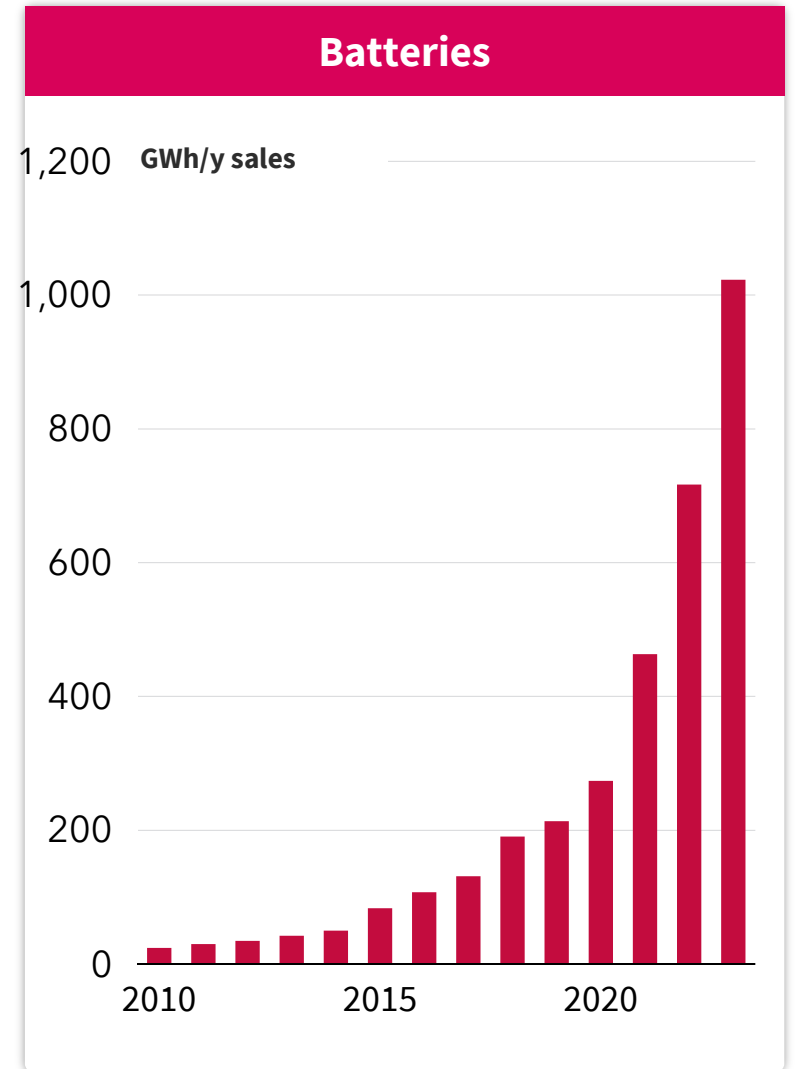
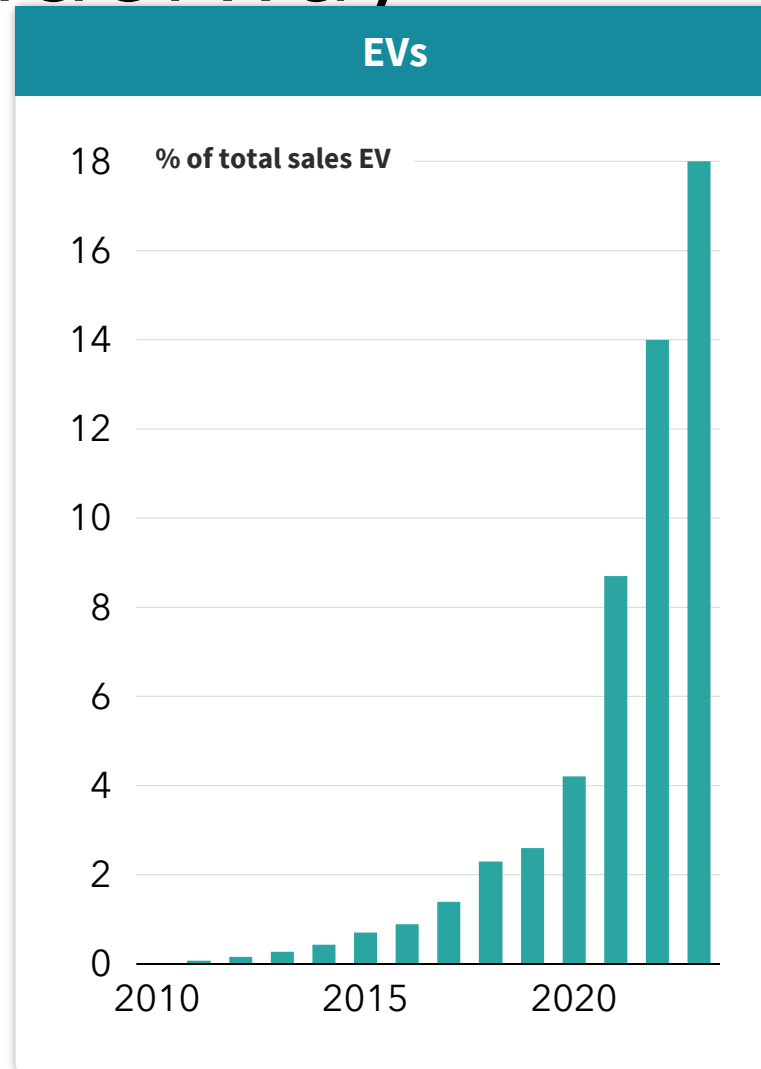
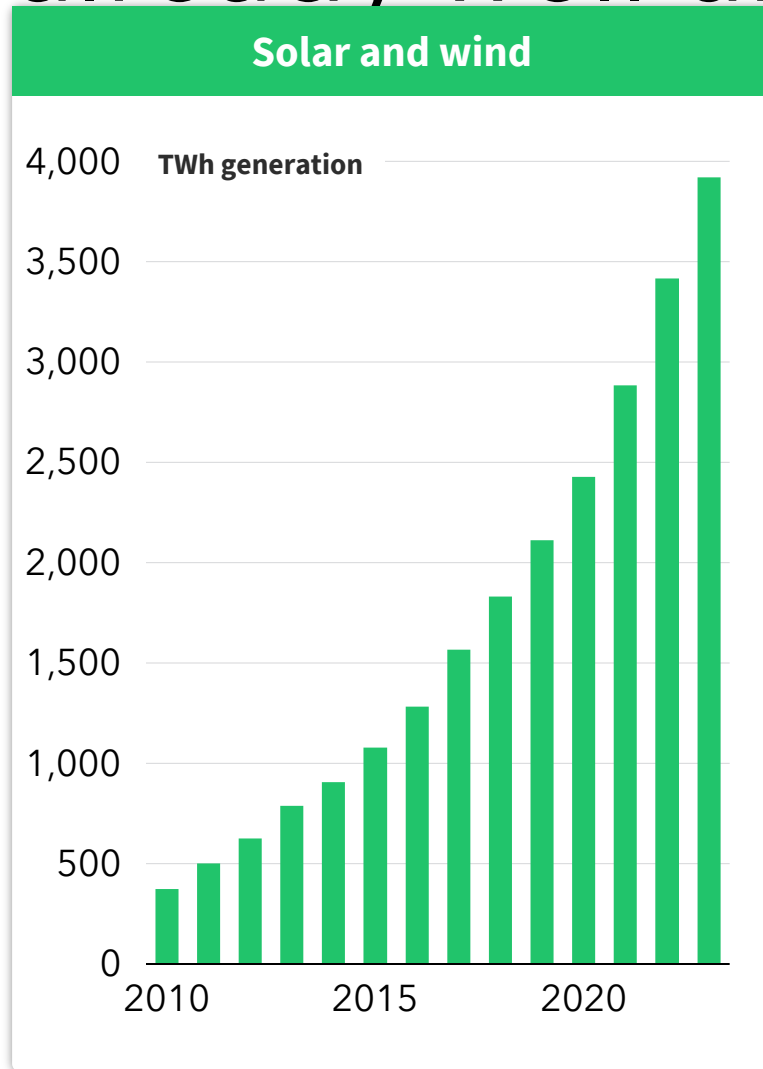
Information Revolution

Adoption of key technologies during the Information Revolution, USA



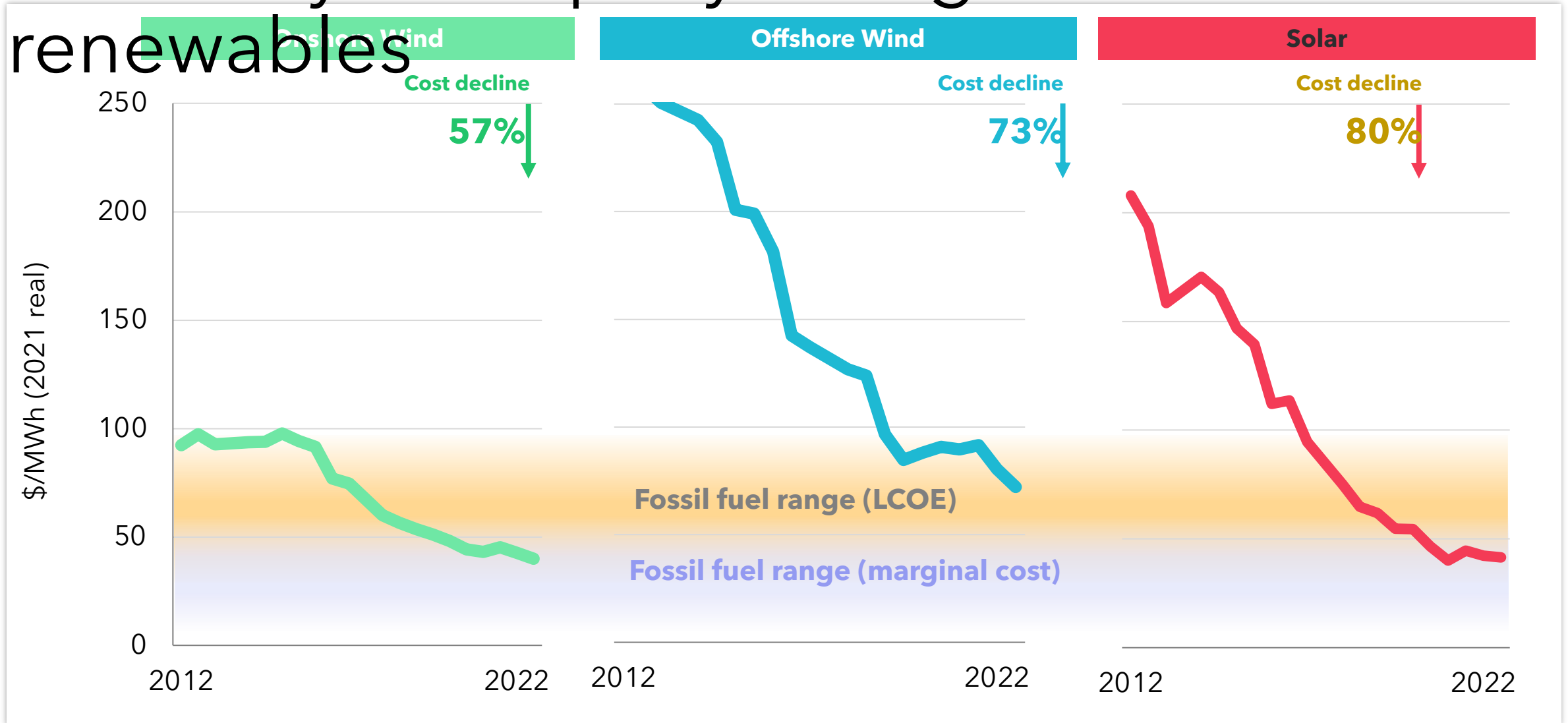
•Source: Comin & Hobijn (2004), Historical Cross-Country Technology Adoption (HCCTA) Dataset; Our World In Data, Share of United States households using specific technologies; RMI analysis

Exponential growth is possible - and already well underway

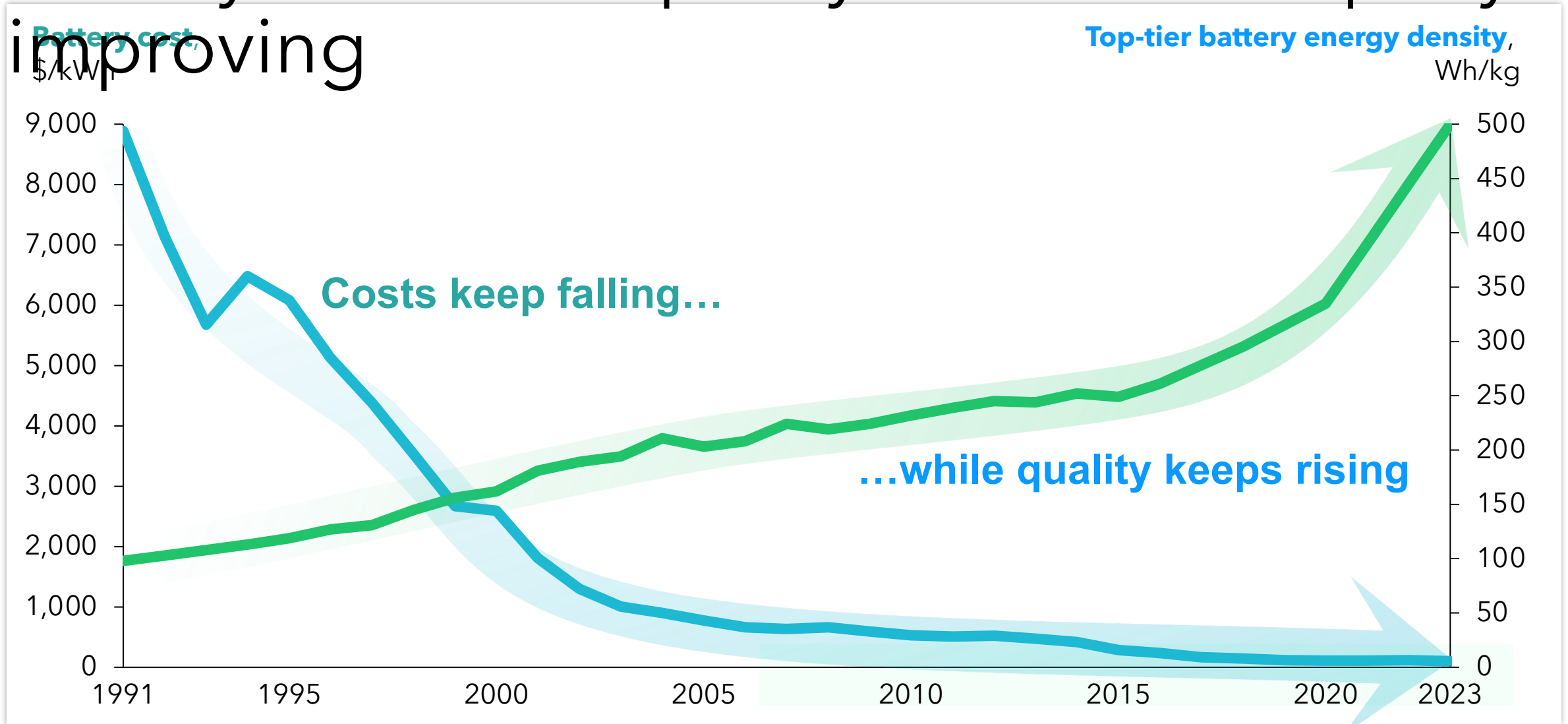


Note: provisional 2023 numbers
•Source: IEA, BNEF

Driven by the rapidly falling costs of renewables



Battery costs and quality have been rapidly improving

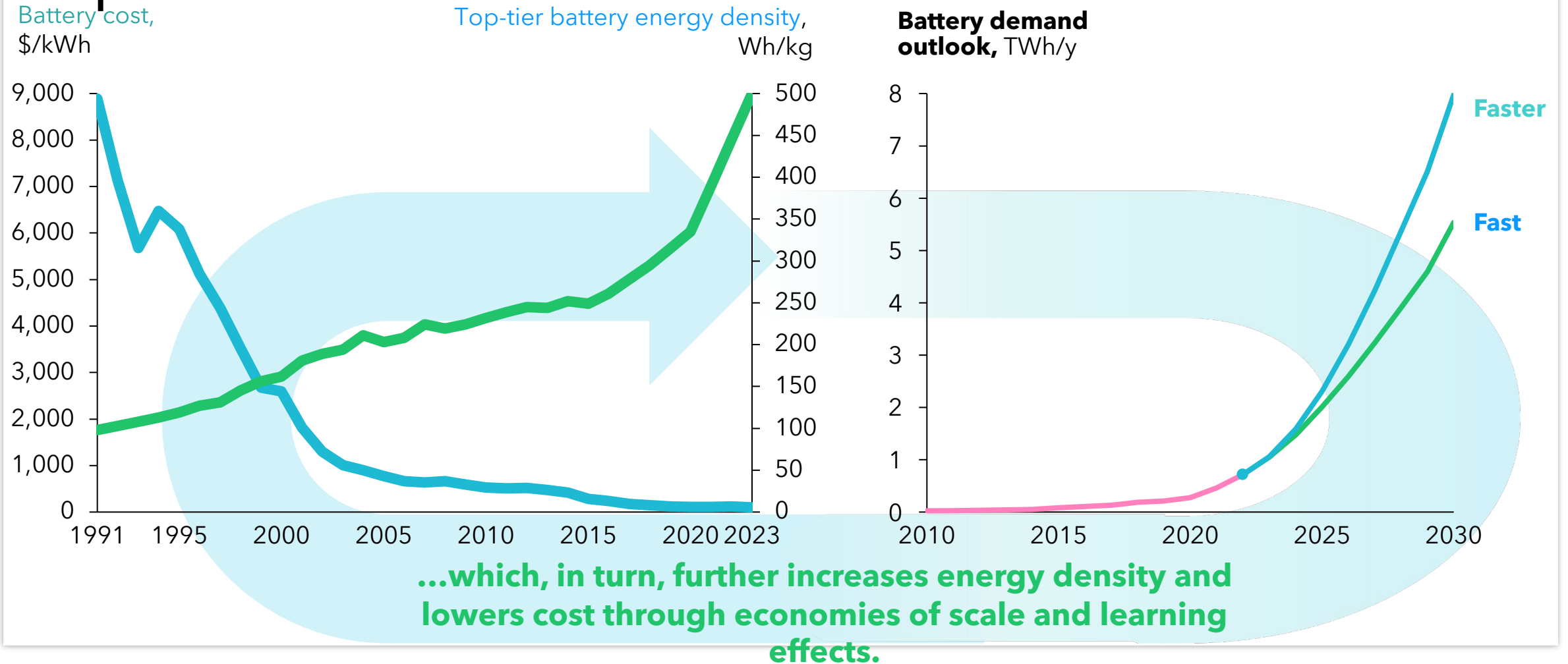


•Source: Ziegler and Trancik, BNEF, RMI analysis

Which leads to a virtuous cycle of improvement

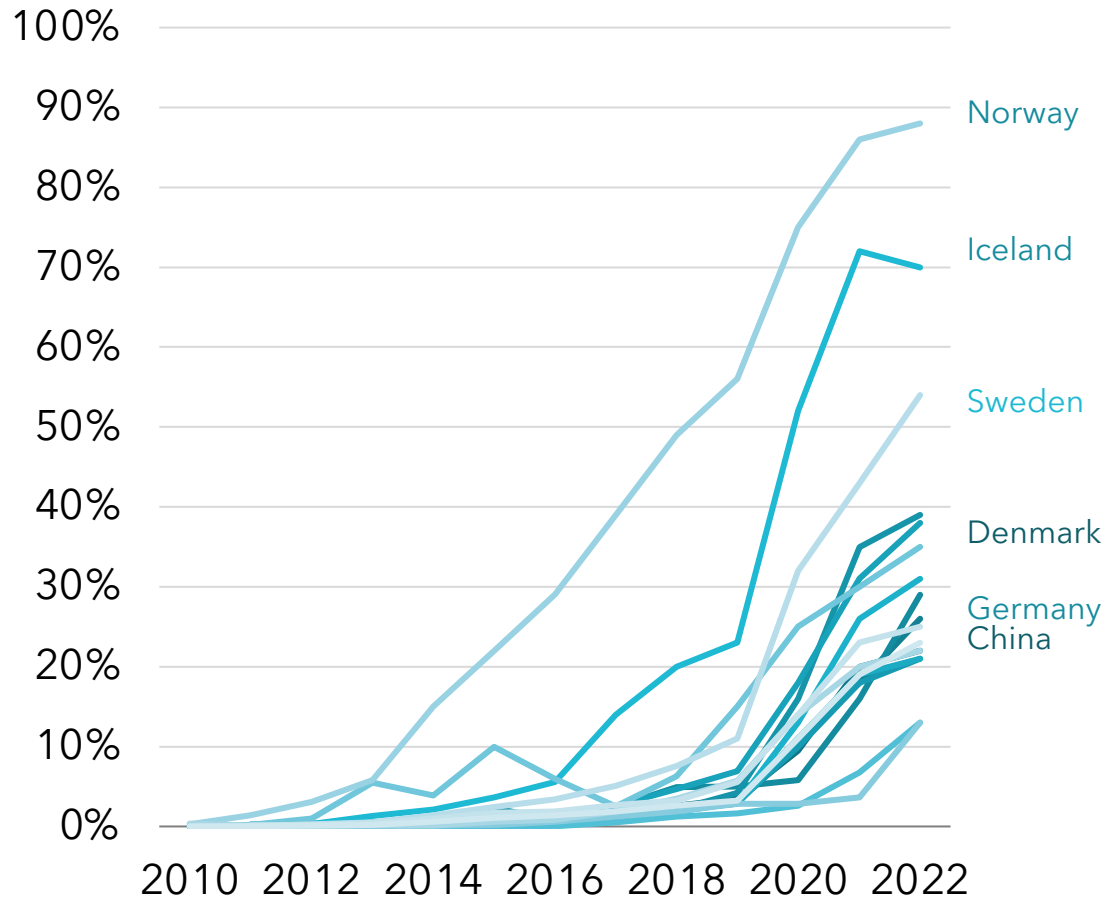
Battery cost and quality keep improving...

...driving exponential growth of battery demand...

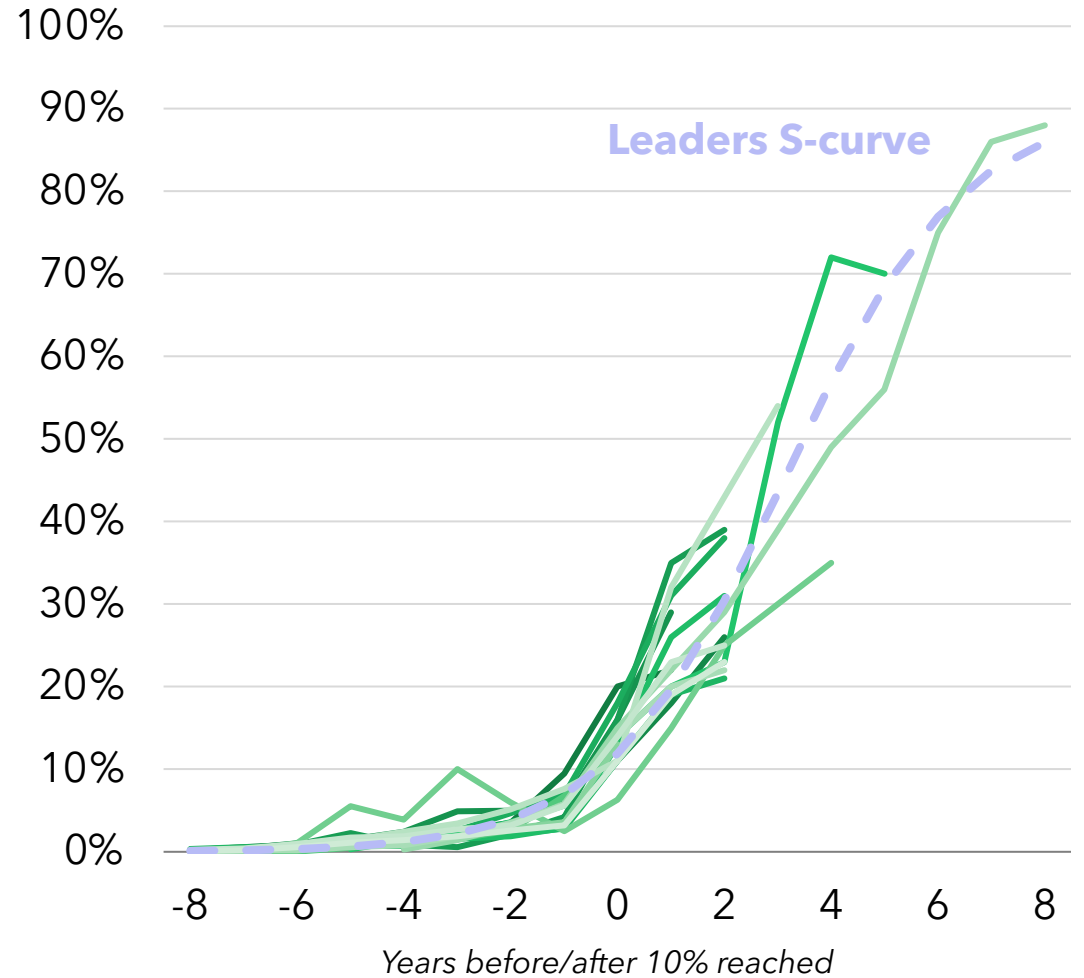


EVs are growing in a near-identical S-curve

Leading countries' EV sales share uptake

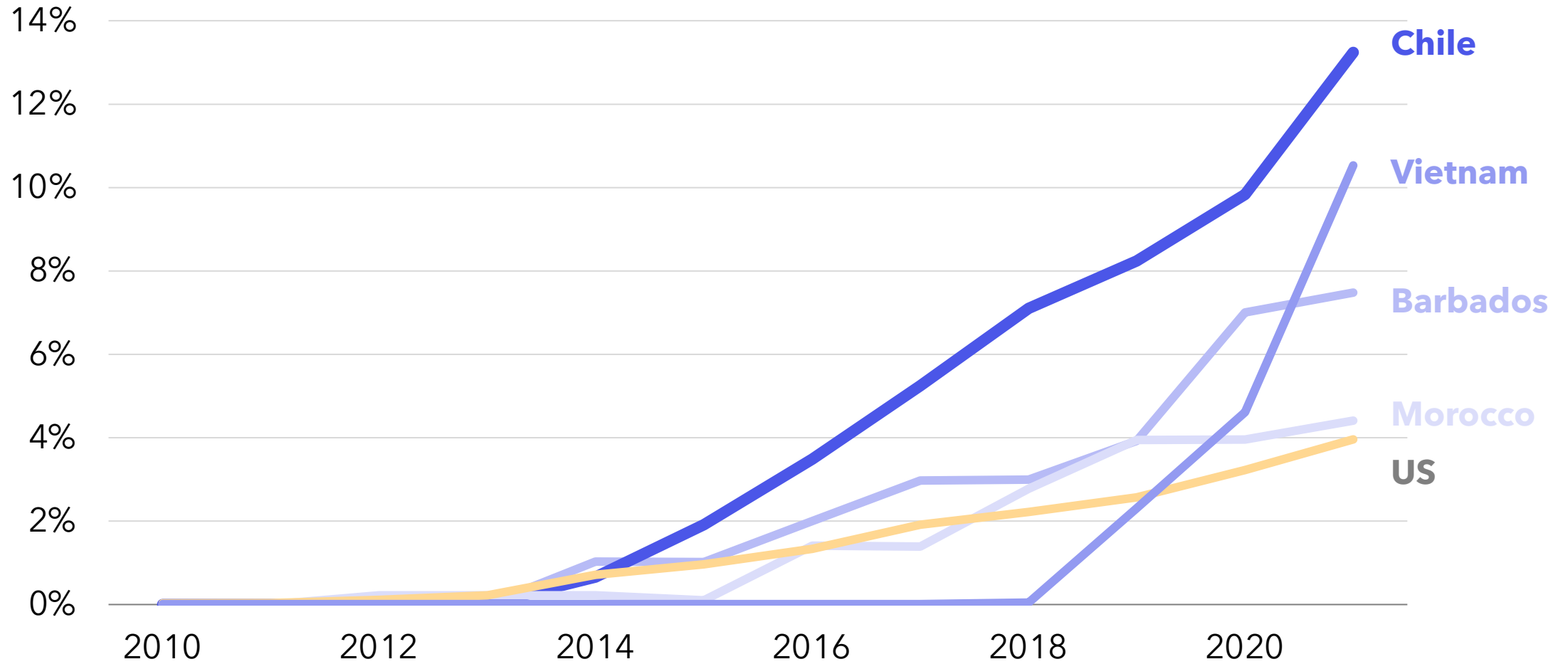


Time shifted uptake curves to align 10% mark



Global South countries can drive their own

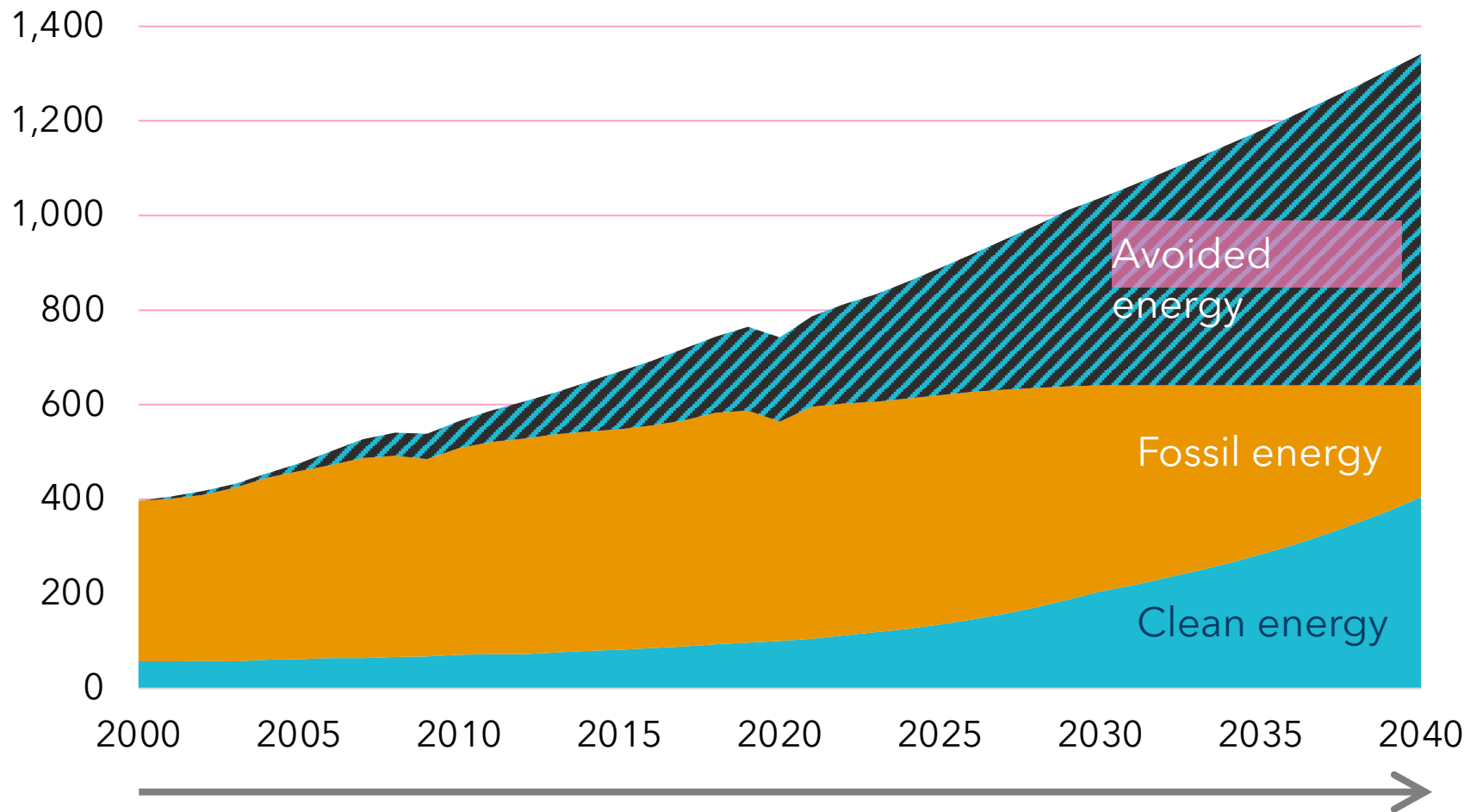
Share of solar in electricity generation



•Source: Ember

Four key trends will revolutionize the energy landscape

•Primary Energy Demand, EJ



1 Efficiency

Leveraging the invisible superpower of the energy transition

2 Peaking fossils

Winding down the fossil industry as efficiency and clean tech push in

3 Exponential growth

Accelerating the unstoppable march of clean energy technologies

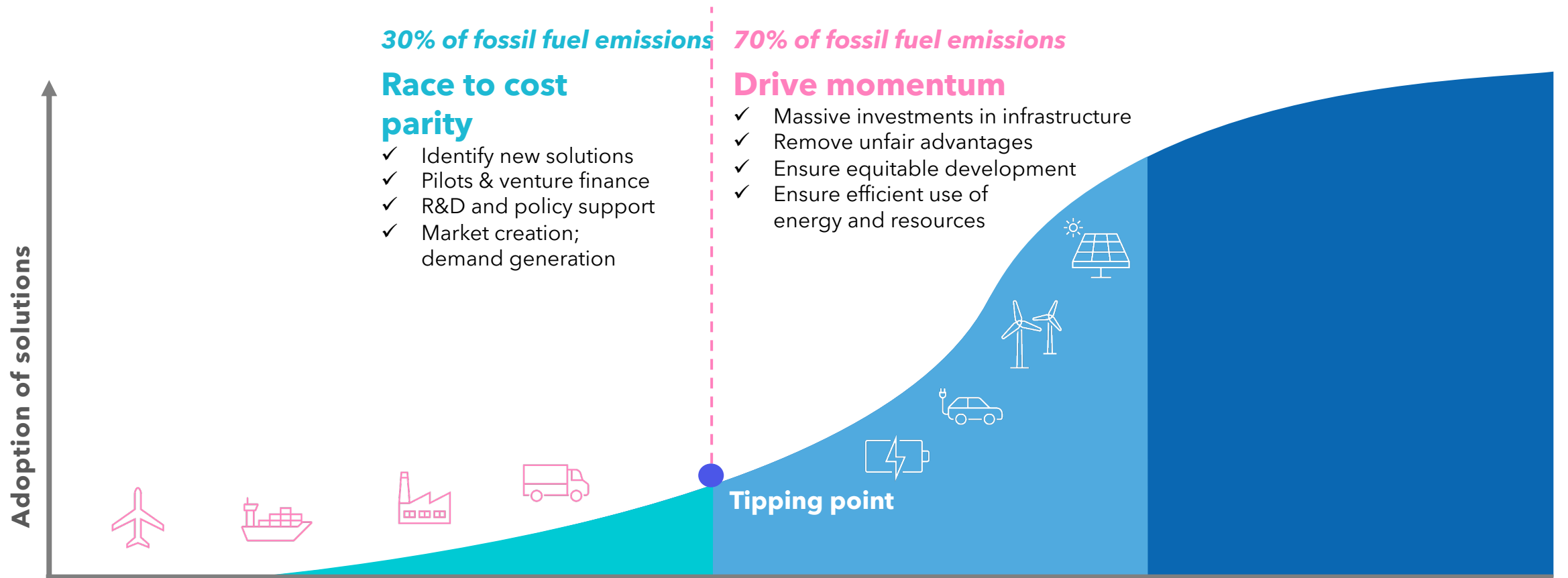
4 A just transition

Building a better tomorrow for all

The pace and reach is up to us

If we keep believing in a slow transition, it will be slow...

... but if we recognize and seize the opportunity of rapid change, we have a good fighting change against climate change



The path to 70%

The 5 top innovations we will be glad we did!

- Establishment of government accountability and execution capacity
- Converting the grid into a digital native
- Market reform for bi-directional flexibility and capacity investments
- Electrification as a public good
- Regulatory reform to more efficiently support grid edge investments



**THANK
YOU**