



Winning the race to net zero

Why companies should accelerate their climate transition



CENTER FOR
Climate & Sustainability



**Climate action
accelerates**



Share of global emissions covered by a national net zero commitment

3%

2018

78%

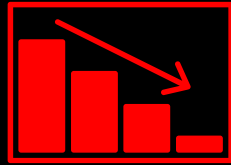
Today

Commitments can mean drastic things—ex. Germany



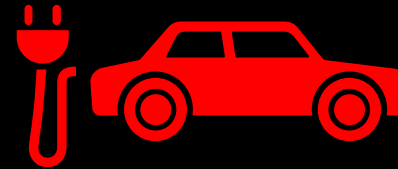
Coal exit 2030,
100% renewables
2035

Backup: Gas plants
with green hydrogen



No more
investments
in fossil assets

across Germany's
entire industry



~2030
ICE exit in
passenger cars

>70% alternative drives
also for new trucks



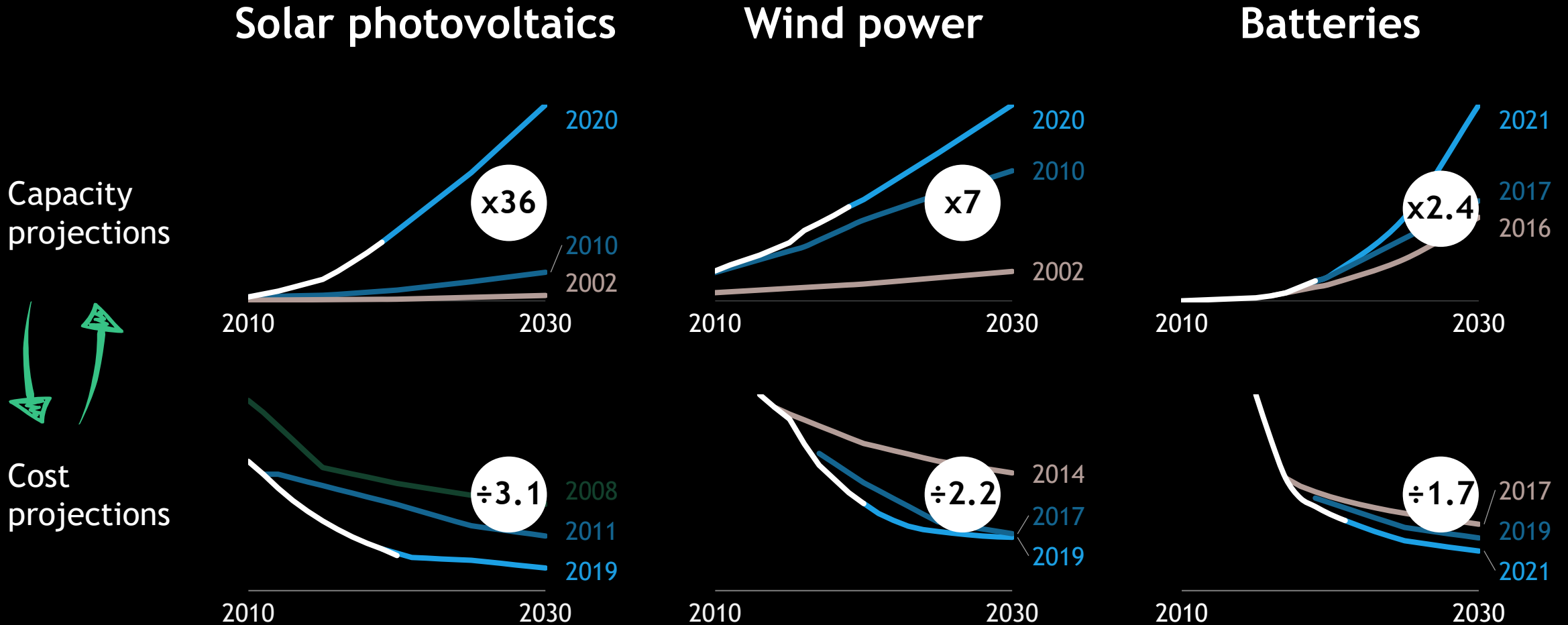
No new oil &
gas boilers
after 2024

wherever
possible

A single tree stands in the center of a landscape. The left side of the tree is bare and dark, while the right side is lush with bright green leaves. The ground is a mix of blue and green, suggesting a transition or a split environment. The sky is filled with soft, white clouds.

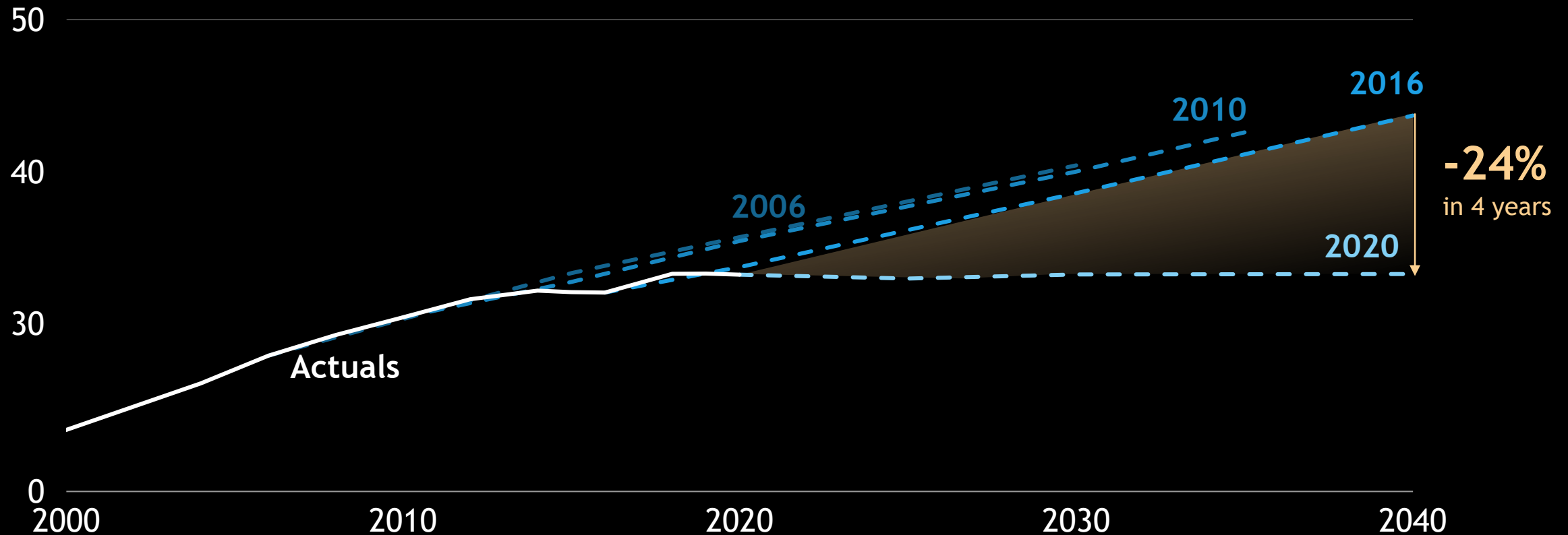
**We underestimate
the pace of change**

We underestimate technology progress



We underestimate policy progress

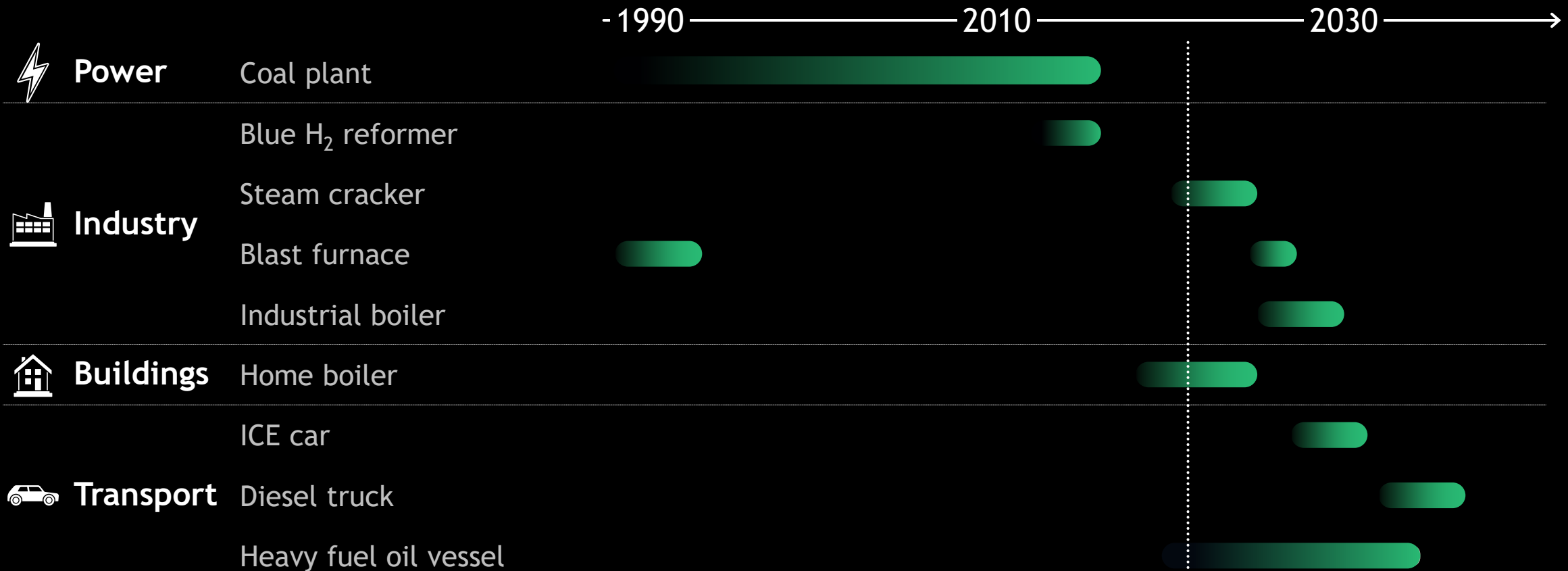
Energy-related CO₂ emissions trajectory under IEA's most conservative scenario¹ (Gt)



1. 'Reference scenario' in 2006, Current Policies scenario in 2010 and 2016, Stated policies scenario in 2020
Source: IEA World Energy Outlook for 2006, 2010, 2016, 2019, 2020

We underestimate how soon change will strike...

Date range¹ for "stranded assets" in developed countries (for emerging geos: 10-15 years later)

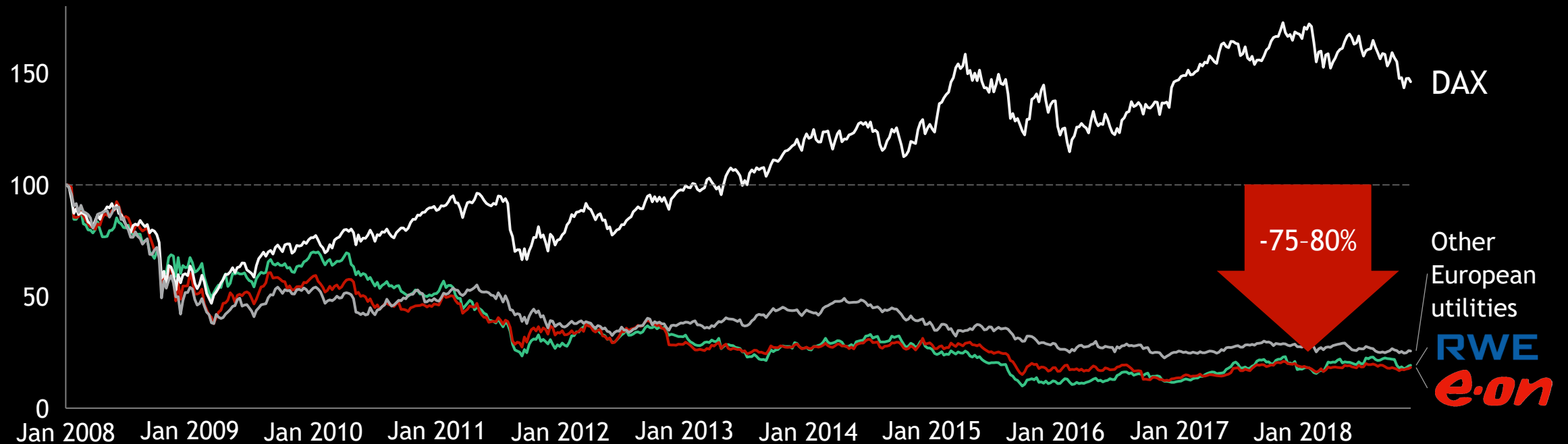


Note: Date based on IEA's net zero 2050 scenario - offset to 2045 for steam crackers, blast furnaces and industrial boilers - and IEA's OECD-specific SDS both 2050-capped; considers both asset useful life and financial life (where these differ)

Source: IEA; GlobalData; S&P market intelligence; EU JRC; industry experts; Chemcom by BCG; BCG Center for Energy Impact; BCG analysis

...especially on capital markets

Stock prices of German utilities: 75-85% loss since 2008
%, indexed to January 4, 2008

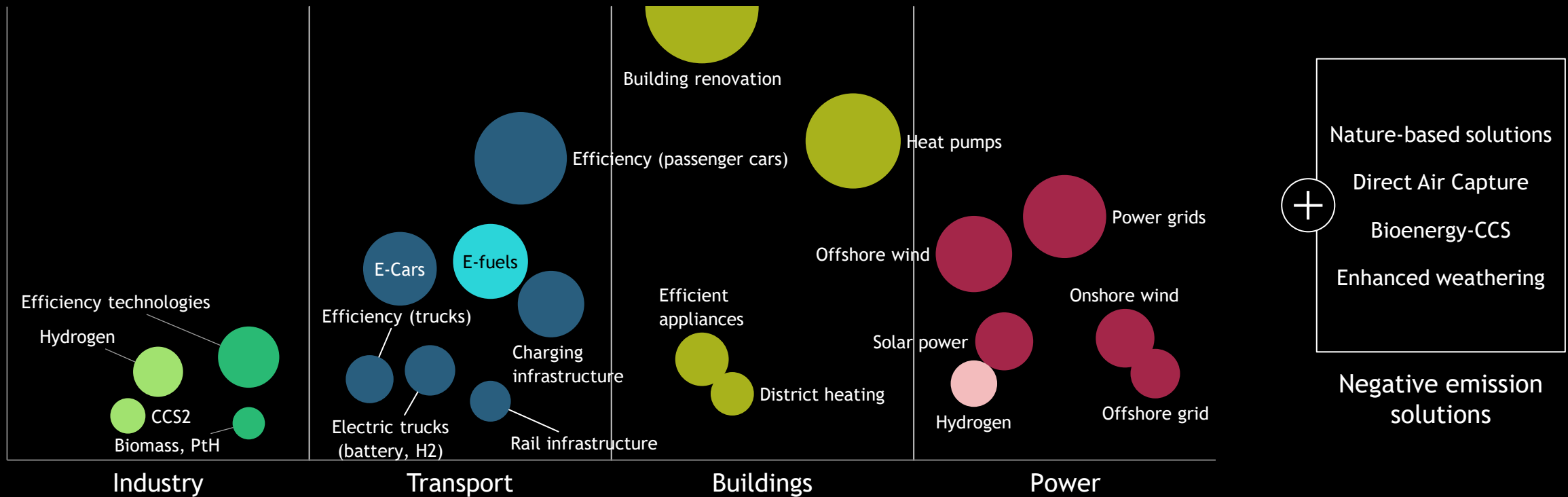


Early movers benefit...



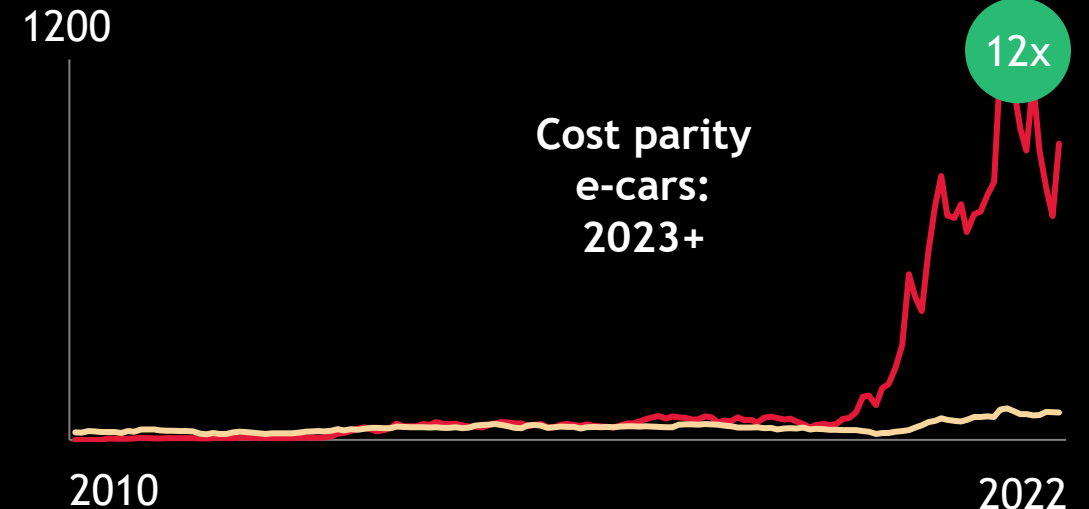
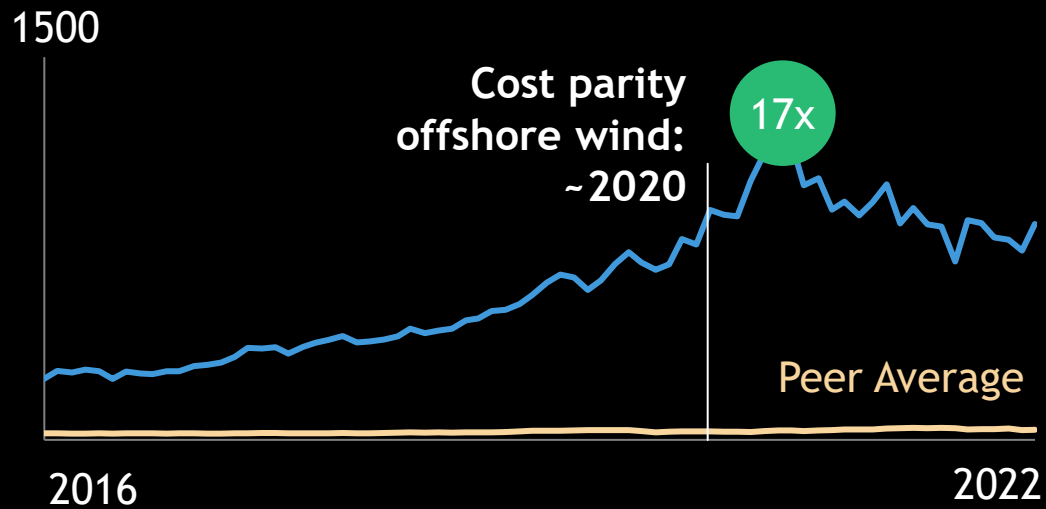
...in tech: ~6T€ additional investments in EU alone

Cumulative additional investments for a European “net zero” path until 2050
in B€



No need to wait for 'cost parity'

Stock prices (\$), early movers vs. peers



...in CP: Even net zero products won't break the bank



<€500

<2% avg. cost increase on a €30k car



<€1

<2% avg. cost increase on a €40 pair of jeans



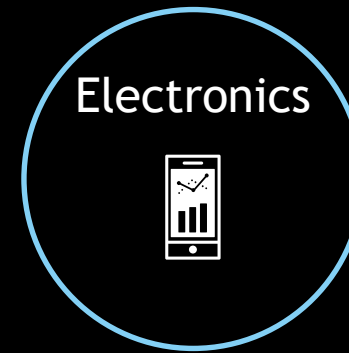
<€1

<4% avg. cost increase on a €20 shopping basket



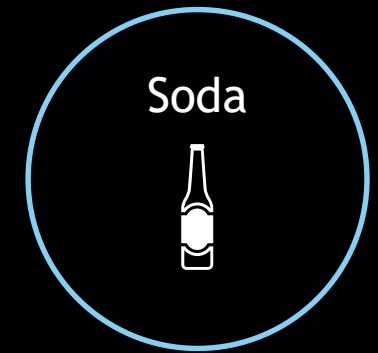
<€5k

<3% avg. cost increase on a €150k home



<€3

<1% avg. cost increase on a €400 smartphone

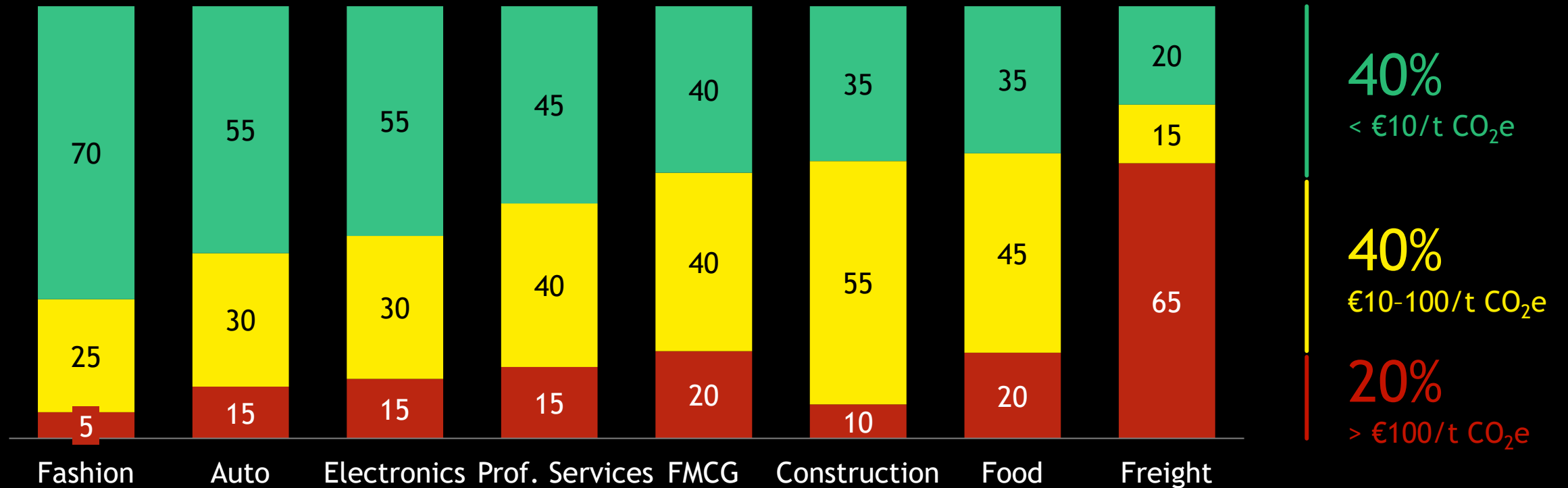


<€1ct

<1% avg. cost increase on a €0.9 soda bottle

~40% of value chain emissions abatable at low cost

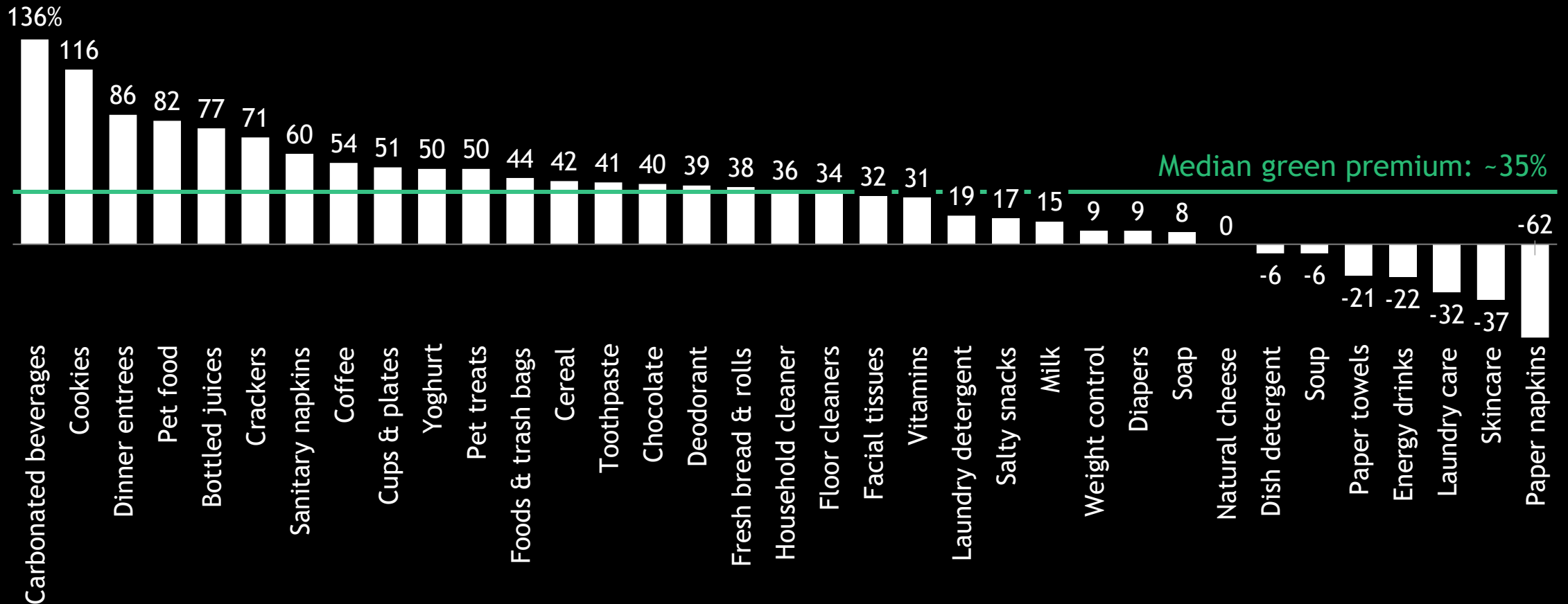
Share of abatement lever cost by value chain (%)



Note: Indicative shares for each value chain; FMCG = fast-moving consumer goods; Freight includes aviation, shipping and heavy road transport

No market? Consumers pay more for sustainability

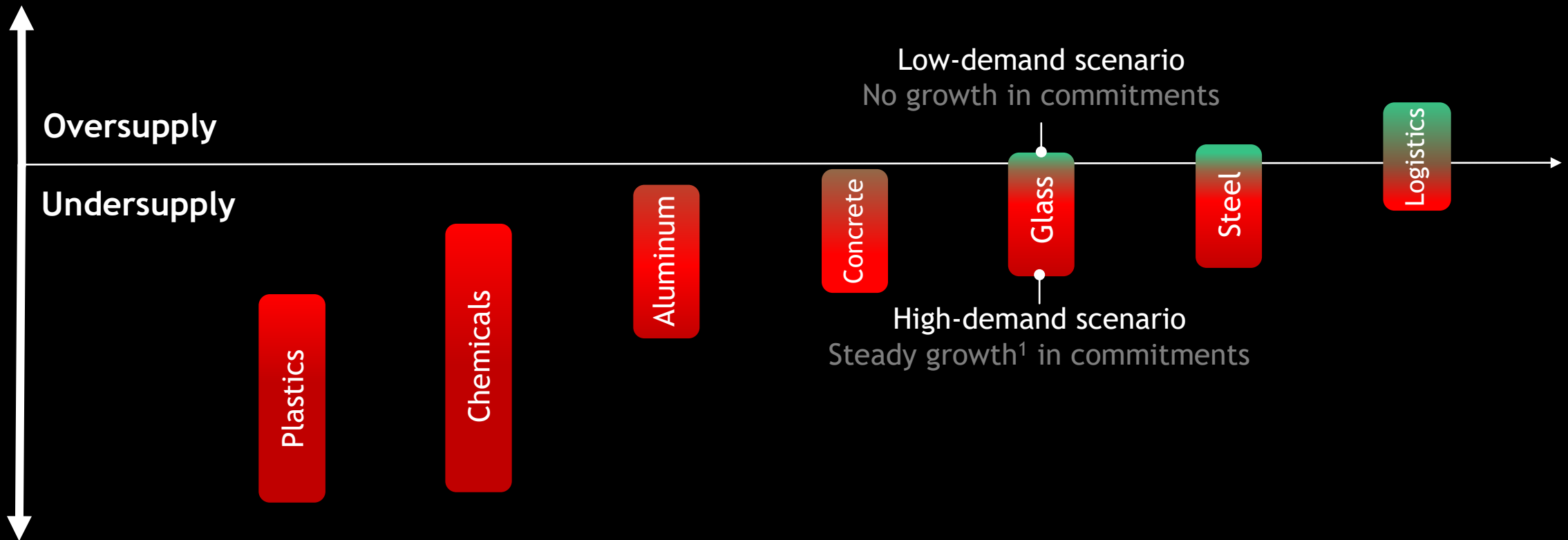
Price premium/discount for sustainability-marketed products in consumer-packaged goods, USA (2021)



Note: Based on CPG categories examined; Source: NYU Stern CSB - Sustainable Market Share Index (April 2022 Update), IRI (2022), BCG analysis

...in industry: Green materials will be undersupplied

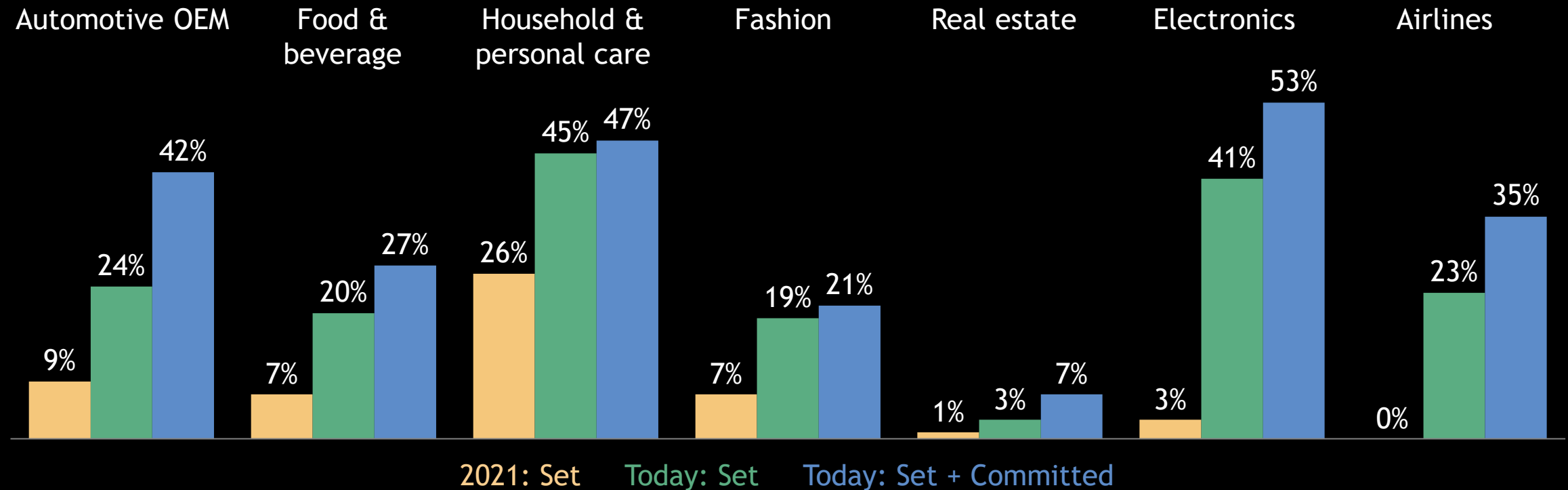
Estimate of supply scarcity risk of green materials in 2030



Note: Commitments intended as upstream commitments; 1. Based on 2030 growth in commitments by sector, assumes continued decline in gap to 100% of revenue covered by upstream commitments [80% for Auto OEM, 59% for Food&Bev, 76% for Households & PC, 46% for Fashion, 20% for Real-Estate and 100% for Electronics]; Green Demand considered at different commitment levels up till 2030, defined as current SBTi commitments and assuming linear growth as per 2021-2022 period. Green Capacity considered at 2030 figure over Global Capacity in the same period; Source: Company announcements; news reports; BCG analysis

Supply chain decarb commitments growing quickly

Market share of companies with upstream Scope 3 sustainability commitments in different sectors
(%, by revenue, 2021)



~\$24T revenues (~30% global GDP) covered with science-based targets; Data as of November 2022 - cumulative view, includes companies committed and with targets set;
Source: Science-Based-Targets initiative (SBTi); BCG analysis

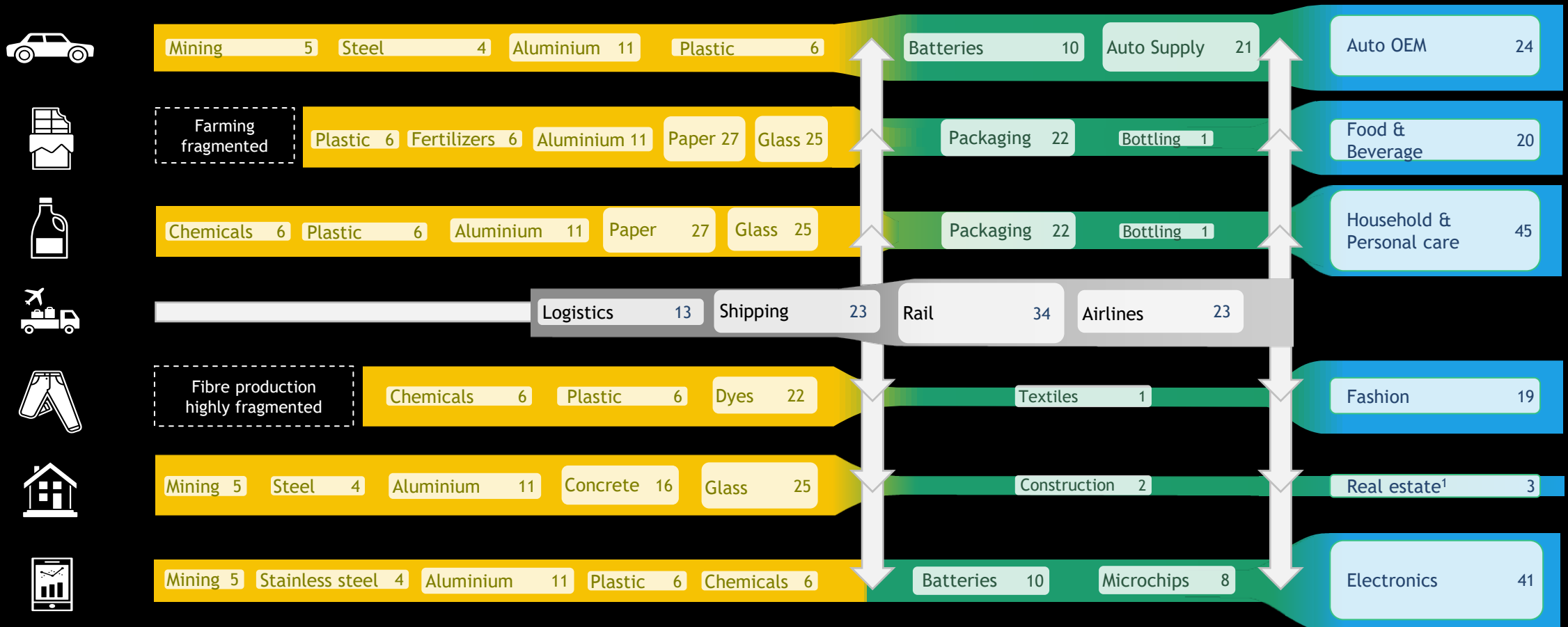
Upstream players are lagging in decarbonization

Market share (%) with CO₂e targets
SBTi + FMC targets, by revenue, 2021

Input materials
Scope 1 & 2 targets

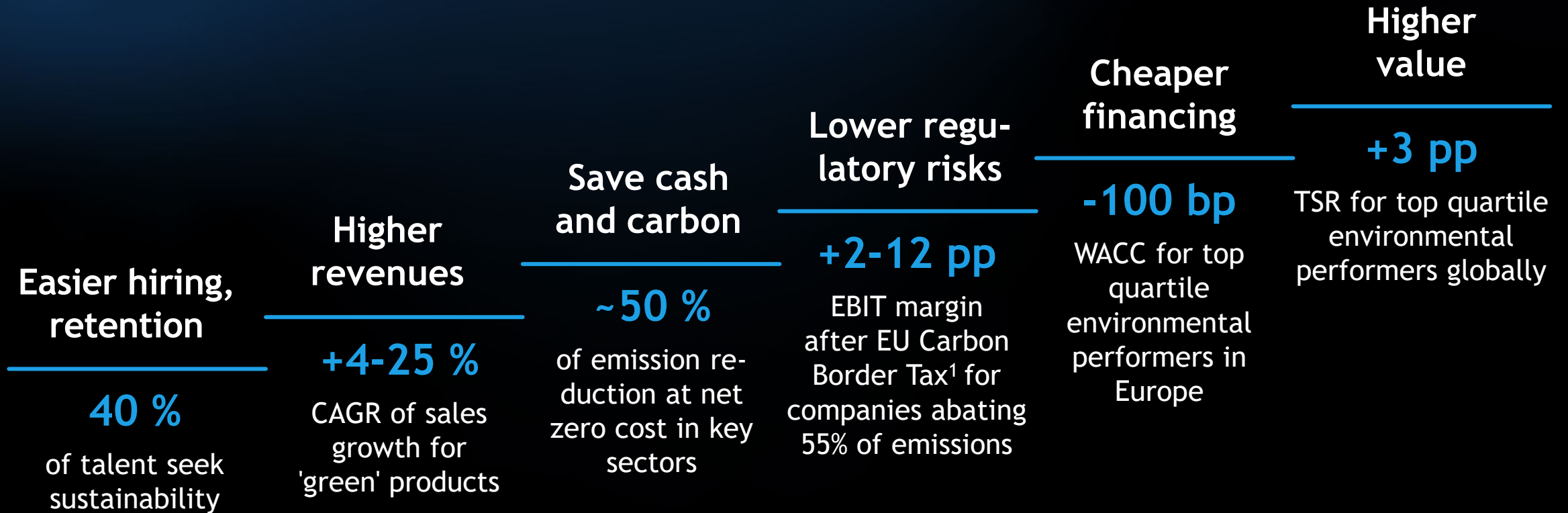
Components
Scope 1 & 2 targets

End products
Scope 3 upstream targets



1. Real Estate and Construction
Source: S&P Capital IQ; Market reports; Company Annual Reports; BCG analysis

Climate leaders gain competitive advantage



1. Based on a €75/tCO₂ carbon price assumption for 2030
Source: EU announcements; BCG analysis

Individual companies can change the game. But they need all help they can get.



Raise the bar for their industry



Reshape their context



Disrupt their (industry's) business model



Save cash while saving carbon



Pioneer a net zero product



Thank you.