

# Insights: Driving world class net zero transformations

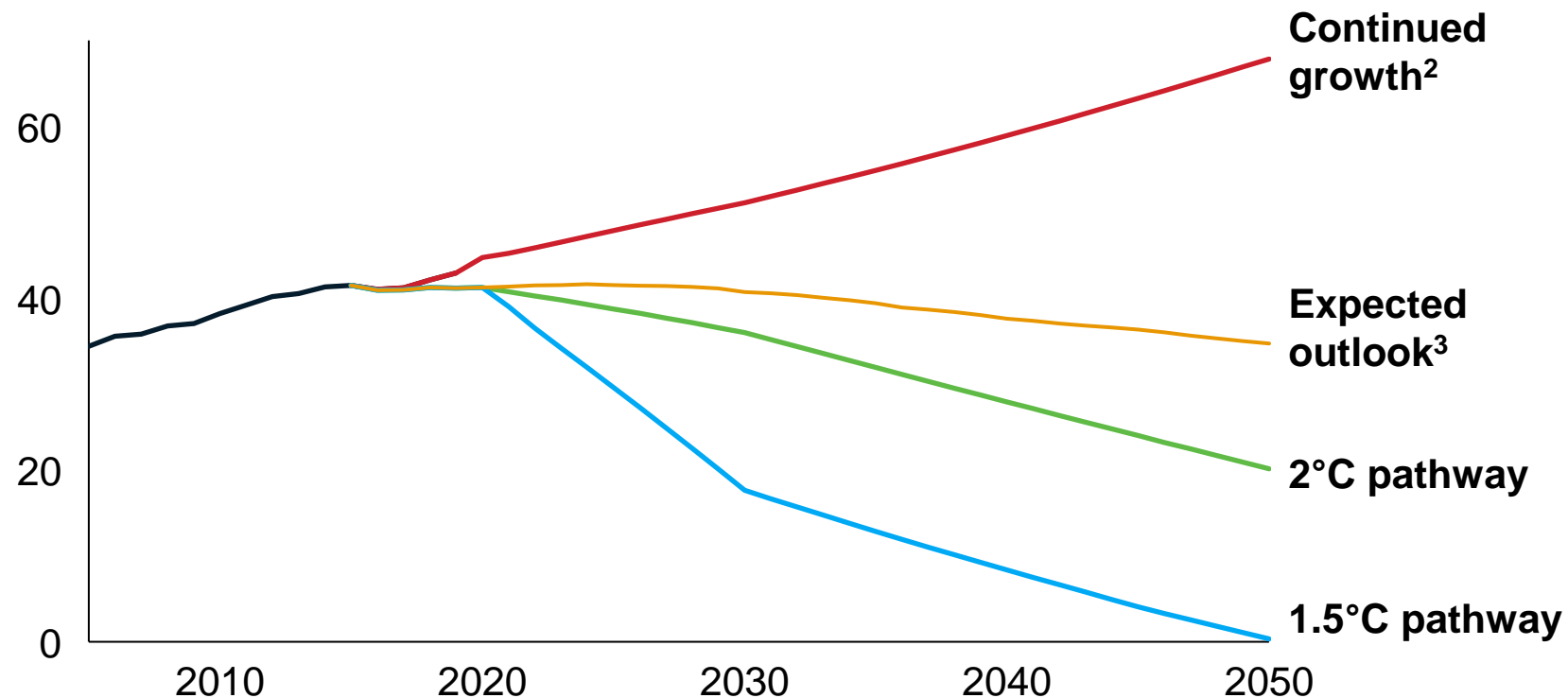
Discussion document

Jun 2024

# Current emission trajectories a stark departure from a 1.5C pathway

## Pathways of global carbon dioxide emissions<sup>1</sup>

Gt CO<sub>2</sub> per year



Historical trends continue, and yearly CO<sub>2</sub> emissions surpass **70 Gt by 2050**, leading to warming of up to **4.8°C** and severe physical climate impacts

McKinsey's aggressive projection of current global energy trends still leads to warming of 3.5°C

The significant effort required to reach a 1.5°C pathway would be **challenging, yet feasible**

1. 2005-2018 emissions from Global Carbon Budget 2019. Emissions from biotic feedbacks not included (e.g.: permafrost thawing, wildfires).

2. Average of the IEA WEO 2019 Current Policies Scenario and IPCC RCP8.5 pathway.

3. Reference case used is McKinsey's Global Energy Perspective - Reference Case 2019

NB: Projected warming estimated by 2100

# Global decarbonisation - huge challenge and large opportunity



**Largest capital reallocation world has and will see since post Second World War** - \$13.5 T needed particularly in production, energy and transport sectors by 2050



**To be enabled primarily by innovations from private sector** – Development and scale-up of new technologies



**Urgent need to get the business models right to reduce need for scale-up of grey technologies** e.g., optimize and scale RES business model to replace requirement for adding coal-based capacities

**Driving net zero transitions & allocating capital towards greener portfolio is an imperative and a huge opportunity – 300 Decacorns** could be created through this transition by 2030

# Transitioning to Net Zero could enable corporates to capture emerging value from strong tailwinds...



**Capitalize on regulatory tailwinds**



**\$500B+**

from the IRA in new spending and tax breaks that aim to boost clean energy



**Adapt to regulatory headwinds**



**30-50%**

corporate profits at risk from regulatory action (e.g., carbon pricing in EU, SEC new reporting requirements)



**Manage carbon intensity**



**~20%**

lower WACC on average for companies who have green businesses

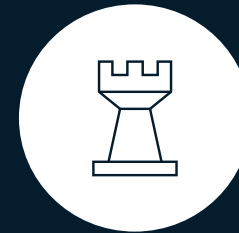


**Access new, large climate value pools**



**\$1.1-1.2B**

addressable water market size by 2030, including venture, PE, and infrastructure capital



**Diversify with new business**



**\$10T+**

in annual climate revenue across industries for next 30+ years



**Preserve talent**



**80%**

of millennials want to work for a company strong on climate/ ESG

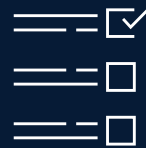
# ...with early movers having an opportunity to gain significant competitive advantage



## Capture green premiums

Increasing willingness-to-pay premiums for sustainable products; green premiums will likely decrease over time

Sustainability-marketed products enjoy a price premium as high as 39.5% vs. conventionally-marketed ones<sup>1</sup>



## Respond proactively to regulations

Carbon tracking is becoming “right to play” in many markets; first movers may be better able to shape industry standards and optimize their strategy & carbon costs

PEF will require disclosure of product environmental footprints<sup>2</sup>  
CBAM could cost crude exporters to the EU \$1-2/bbl (at \$40/tCO<sub>2</sub>e price)<sup>2</sup>



## Recruit and retain talent

Demand for ESG experts has far outpaced supply; overall talent base is increasingly attracted to sustainable companies

80% of millennials want to work for a company strong on ESG / CSR<sup>3</sup>



## Acquire preferential financial terms

Investor sustainability requirements are increasing, and emission reduction has been linked to P/E appreciation

74% of institutional investors are more likely to divest for poor ESG records<sup>4</sup>  
10% decrease in emissions associated with avg. 0.4% increase in P/E<sup>5</sup>



## Increase market share

Consumers and customers increasingly demand products with traceable E&S impact statements; first movers may build brand recognition

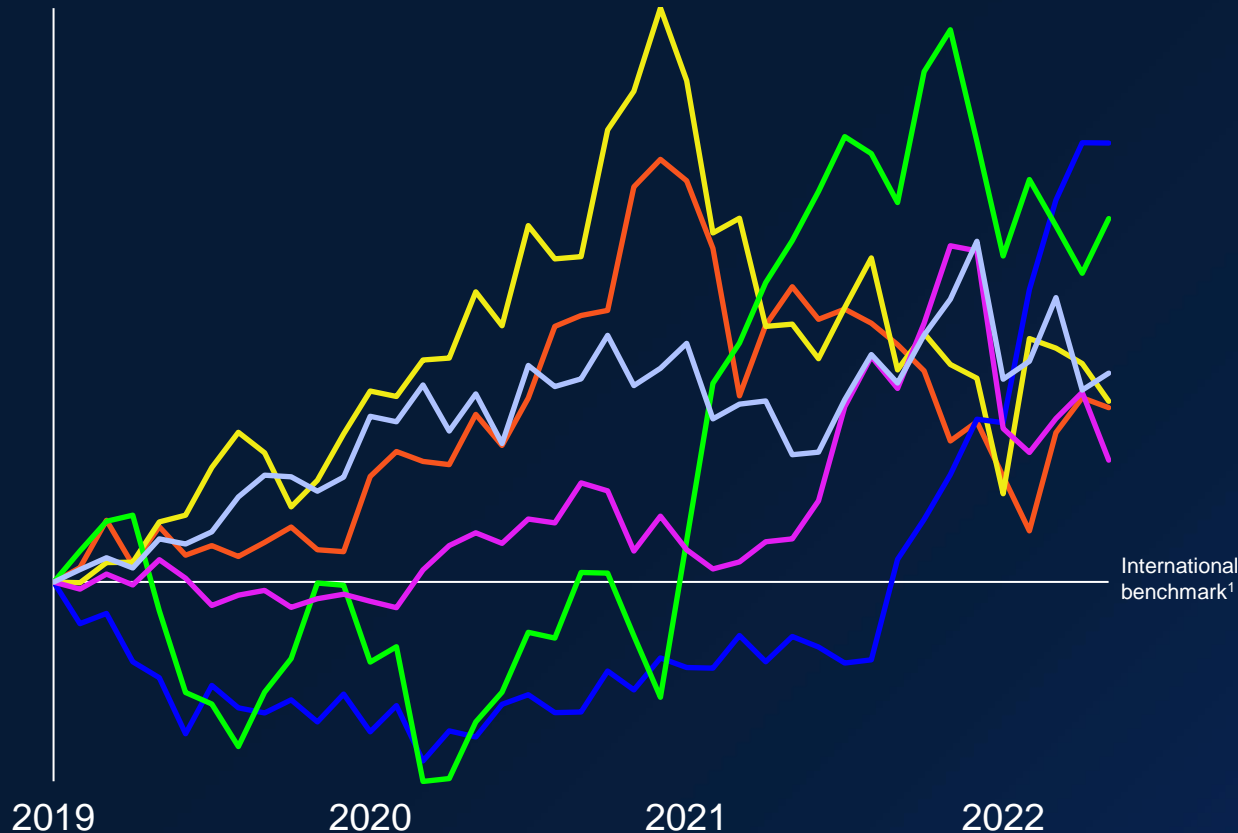
Unilever’s Sustainable Living brands are growing 50% faster vs. rest of portfolio<sup>3</sup>

# Net zero transitions have been creating significant value for shareholders in the new climate economy

Absolute difference in stock price change versus international index from 01/01/2019 to 05/01/22

## Greener portfolio market performance vs. international index (Jan 2019 – May 2022)<sup>1</sup>

Absolute difference in indexed performance versus international index, absolute percentage points



**drax**

**+115%**

Traditional coal player refocusing on biomass and carbon capture



**Green Plains**  
Ingredients that matter

**+95%**

Ethanol player turning towards carbon capture and alt proteins



**+55%**

Fossils player growing their renewable portfolio

**Ørsted**

**+47%**

Fossil player shifting their focus to offshore wind

**NESTE**

**+46%**

Fossil player investing heavily in biofuel

**CRODA**

**31%**

Chemicals players transitioning to sustainable ingredients

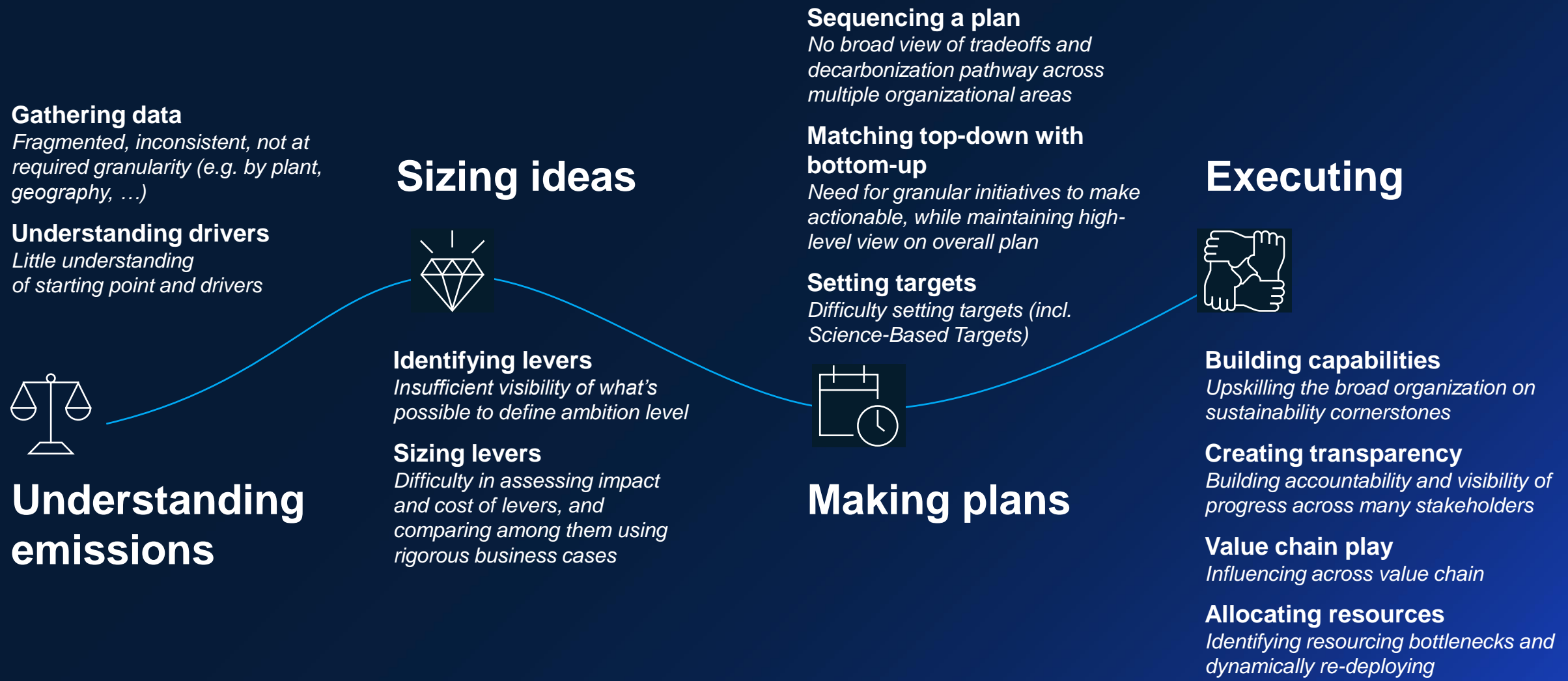
1. Fidelity ZERO International Index; blend of international large cap equities

# In unlocking this transition, key bottlenecks need to be overcome, but also provide significant opportunities

<b>Scaling and industrializing value chain</b>	<b>Materials</b>	Invest into expanding sustainable supply chain, increase recycling rates and process efficiencies
	<b>Manufacturing and Labor</b>	Invest in initiatives to increase economies of scale and decrease costs for key energy transition technologies
	<b>Land</b>	Integrated land use planning e.g., such as rooftop solar and partnerships with food producers for agrivoltaics
	<b>Infrastructure</b>	Invest in repurposing existing infrastructure and developing new infrastructure
	<b>Investments</b>	Track investments and look for opportunities to facilitate investments
<b>Tech cost ramp down</b>	<b>Cost competitiveness</b>	Accelerate speed up the learning curve and increase the cost-competitiveness of low-carbon technologies
<b>Offtake</b>	<b>Offtake at right price</b>	Vertically integrated play to resolve challenges associated with long-term offtake



# At the same time, like any other corporate transformation, an execution recipe is required





# Examples of capital (re)allocation towards greener portfolios

Illustrative

Non-exhaustive



**Invested \$1B** in Rivian, a startup EV company

- **Largest shareholder** with 17% stake
- **3K+ Rivian made vans** operating in the US for Amazon
- Plans to have **100K Rivian's EV delivery vehicles** across the world by 2030



A.P. Moller Holding Company (majority owner of Maersk) has formed **C2X to pursue large scale green methanol projects**

Maersk also holds 20% of C2X

- C2X signed framework agreement worth upto **\$3B for production of green fuels** in Suez Canal economic zone

# Global beverage company is well on the way to reduce scope 3 emissions using this structured recipe

