



Decarbonizing
Commerce



CLIMATE
PLEDGE
FRIENDLY



Decarbonizing Commerce

How climate regulation, industry action, and innovation are reshaping retail and consumer products



Walmart

What is Decarbonizing Commerce?



Decarbonizing Commerce is a new membership-driven research and community firm

We help retail, ecommerce, consumer product, and technology professionals grow their companies and careers at the intersection of climate and commerce innovation



Focused on commerce

Unlike generalist analysts, Decarbonizing Commerce is deeply focused on the retail, ecommerce, and consumer product industries, where we have decades of experience



Commercially & operationally-oriented

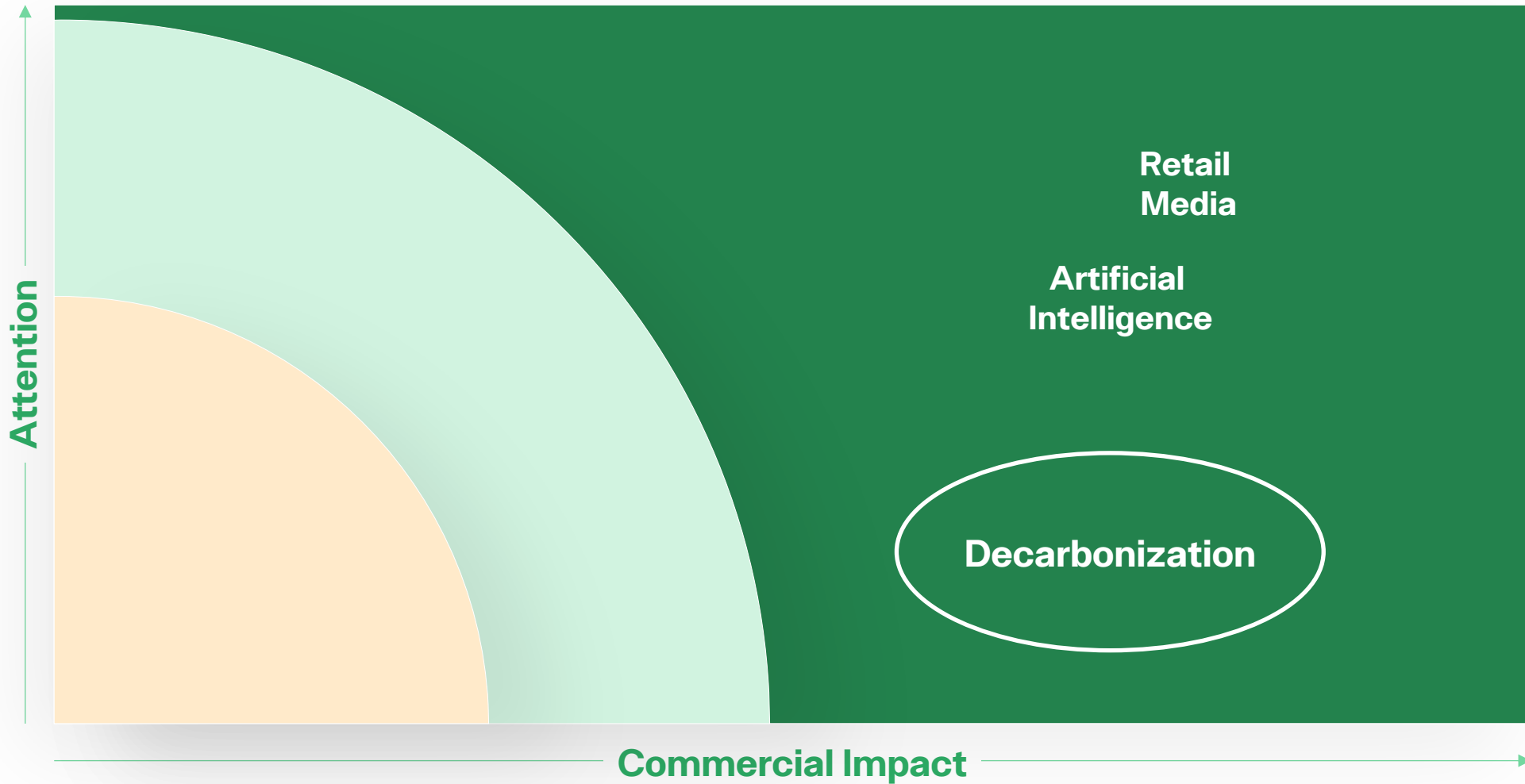
Our community is composed of decision-makers, budget-holders, and practitioners in disciplines like sales, marketing, product design, packaging, fulfilment and logistics, and more



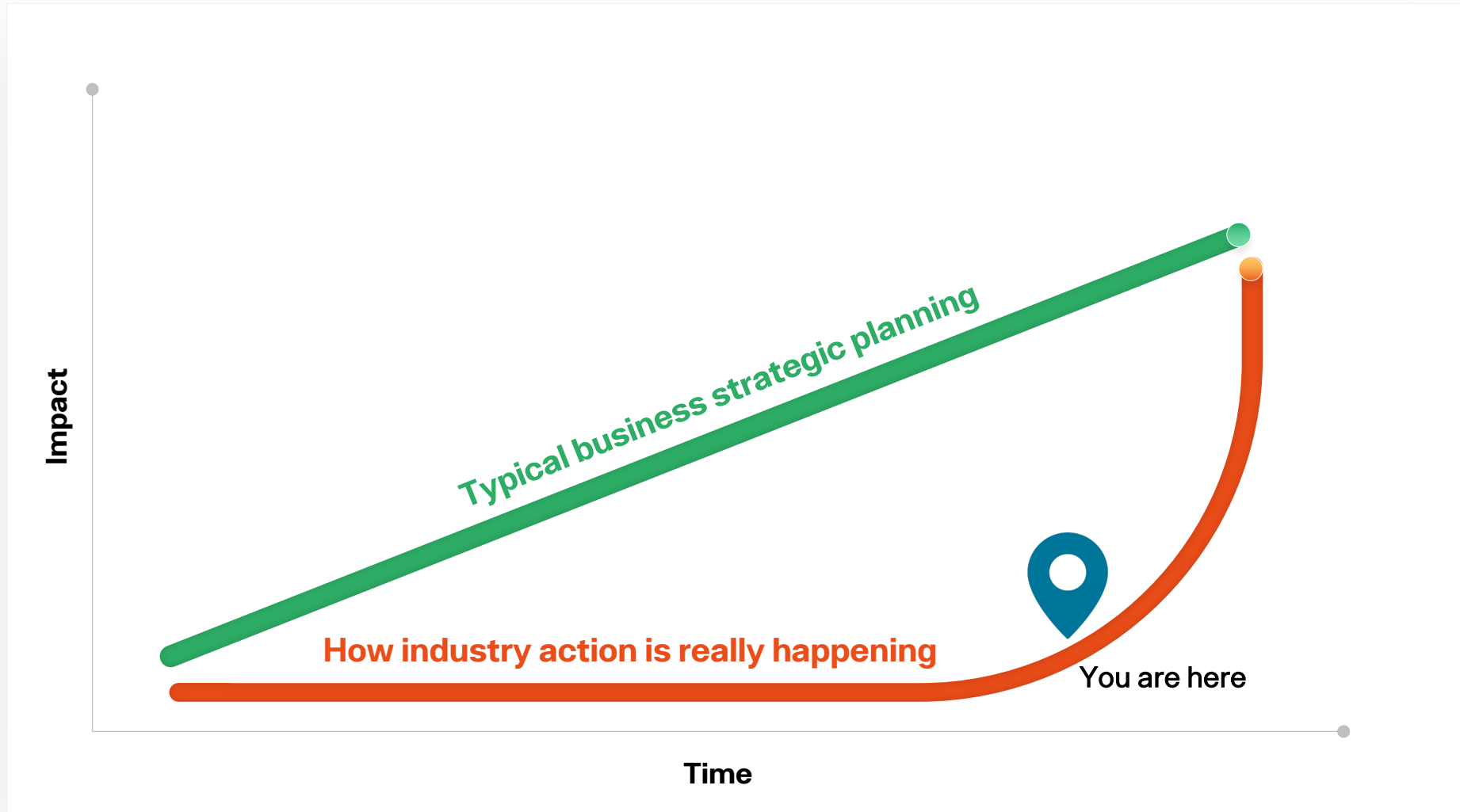
Deeply researched

Our multi-disciplinary research and analysis goes deep to accelerate decisions and implementation

Retail and CPG commercial teams have a blind spot

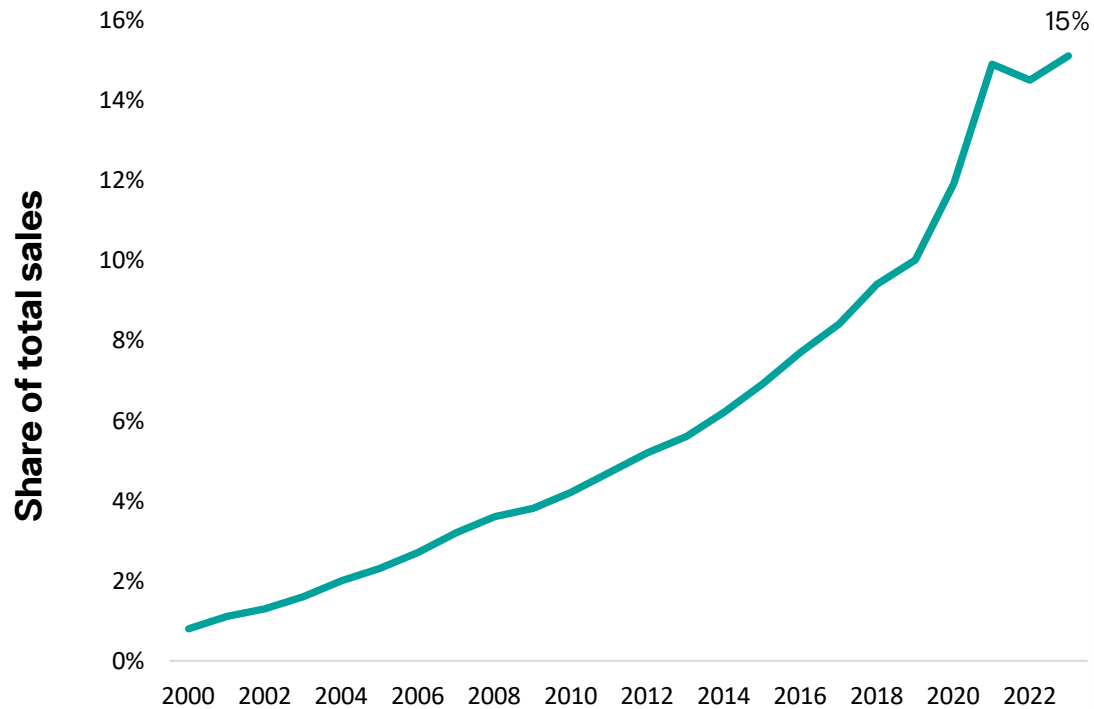


Industry action: expectation vs. reality

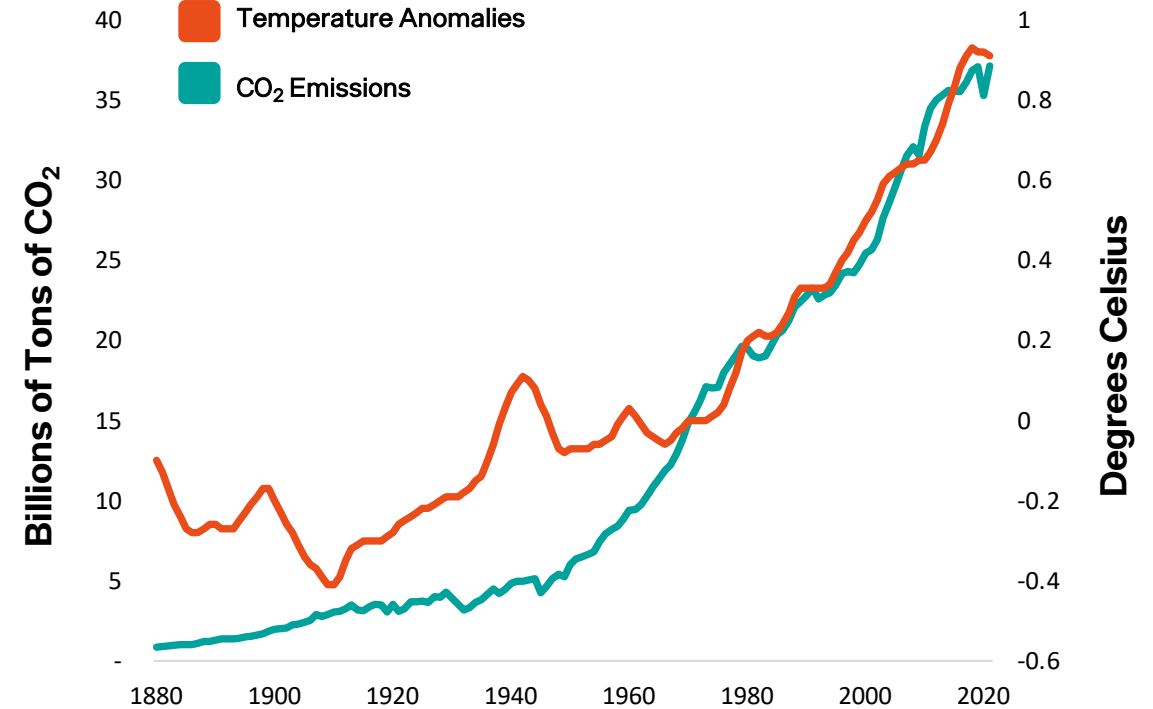


Not the first exponential industry change driver in our time

Online Sales as a % of total sales over time

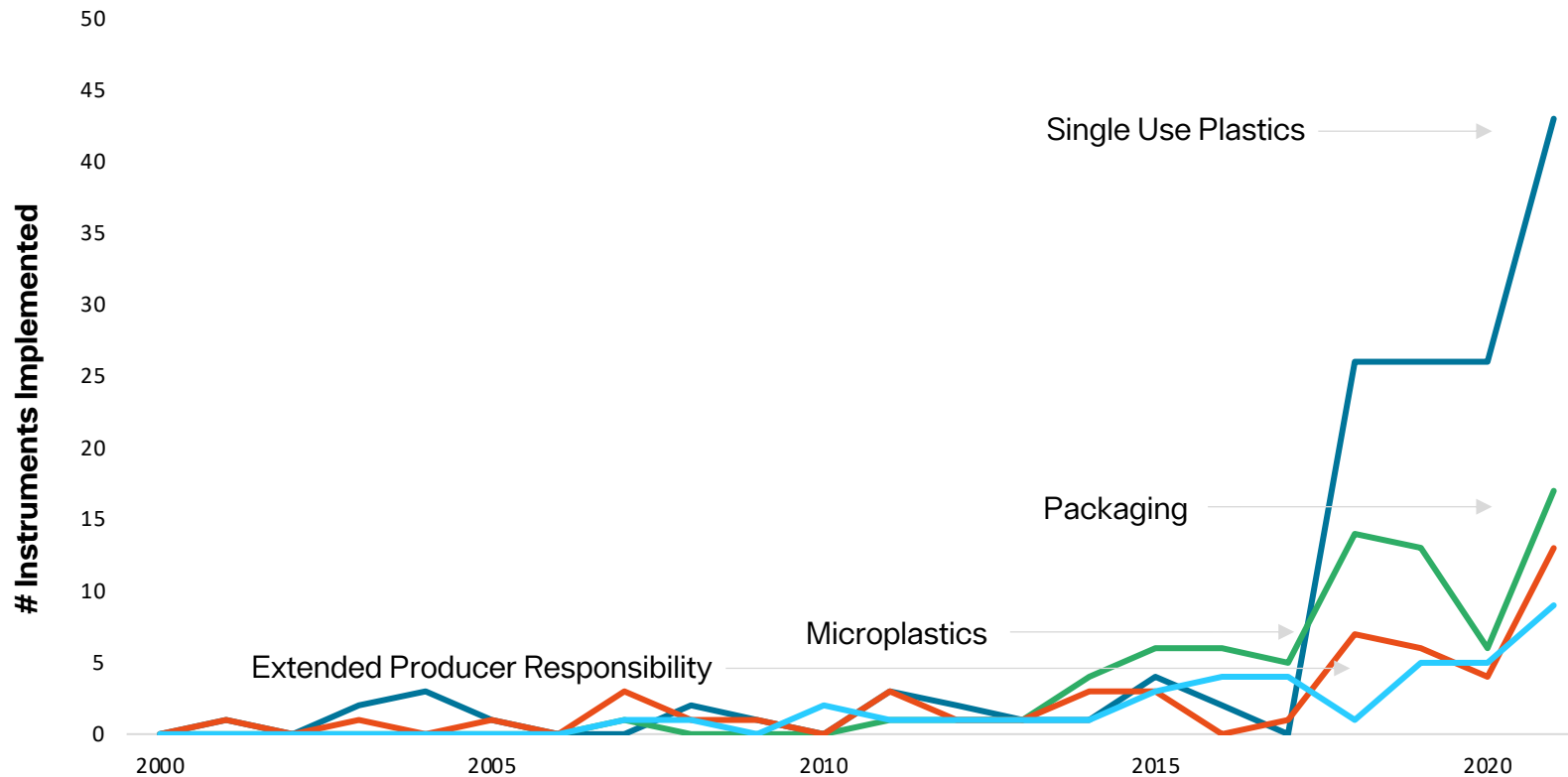


CO₂ emissions vs global temperature increase over time



Regulation is proliferating

300+ Unique packaging-focused regulatory instruments in place globally since 2000⁽¹⁾



By the numbers⁽²⁾



176

Regulatory laws that include bans and restrictions



69

Information-based laws related to education & outreach



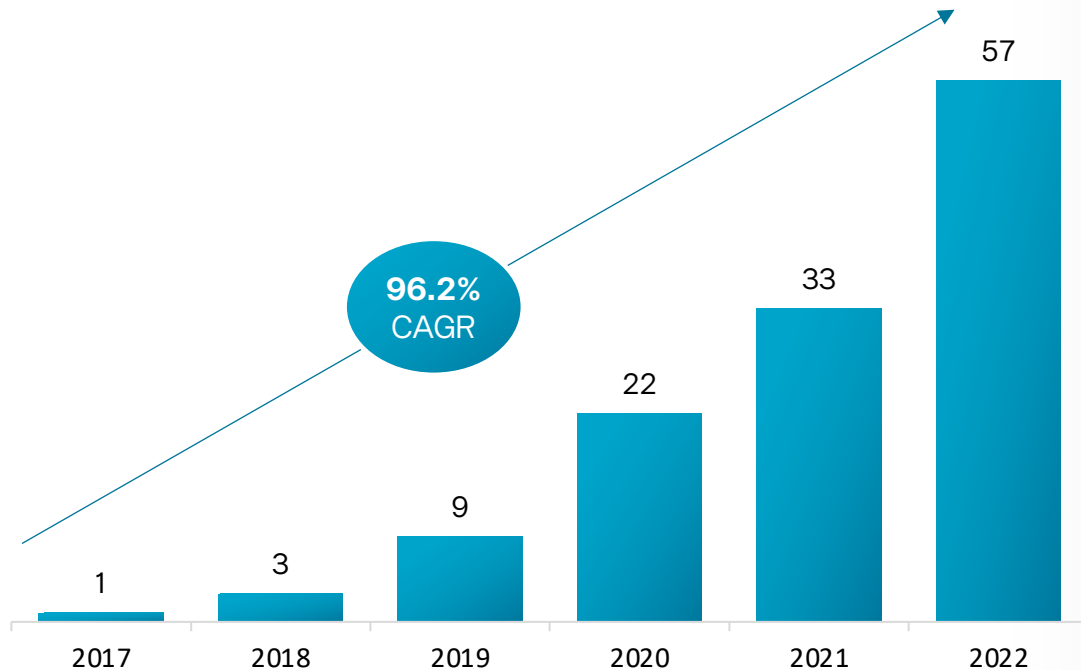
53

Economic instruments like taxes, fees, or subsidies for alternatives

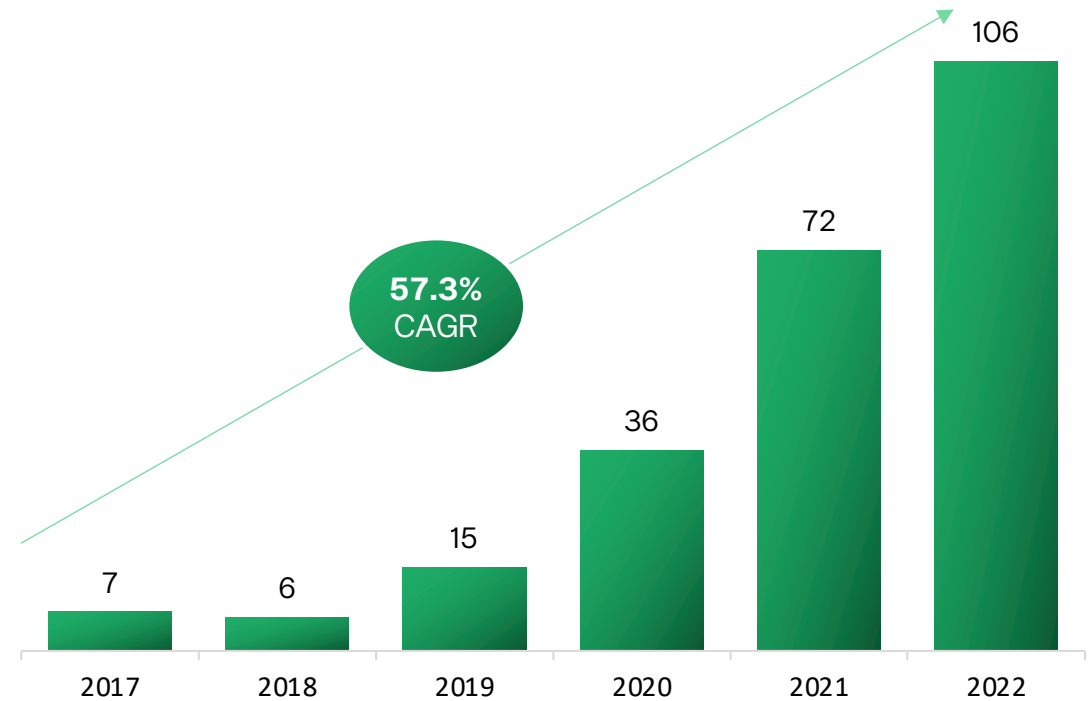
CPGs & retail action is accelerating

Global firms setting science-based targets by year








Consumer Goods Manufacturers



Retailers & Grocers



Retailers' initiatives are shifting from backstage to centerstage

		Initiatives								
Key Programs		Private Label	Data Requirements	Buying Criteria	Packaging	Logistics	Fulfillment	Store Design	Energy Efficiency	Merchandising
	Project Gigaton Built for Better	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Compact By Design Climate Pledge-Friendly	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Zero Hunger, Zero Waste	✓			✓	✓	✓	✓	✓	✓
	Made Mindfully	✓	✓		✓	✓		✓	✓	✓
	TargetZero	✓	✓	✓	✓	✓		✓	✓	✓
	Carbon88	✓	✓		✓	✓	✓	✓	✓	✓
	Rescued Organics	✓		✓	✓	✓	✓	✓	✓	✓

Action is shifting to ways of working cross-industry

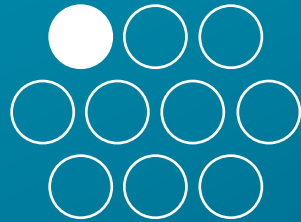
Directly-Controlled Emissions (Scope 1 & 2)



Emissions from power consumed at owned facilities and generated from operations



Lower-hanging fruit, but only represents:



~10% of the typical retail or CPG firm's emissions



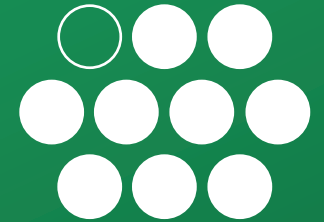
Value Chain Emissions (Scope 3)



Upstream & downstream emissions—from suppliers, to logistics, use, and post-use



Requires collaboration from partners and more difficult to impact, but represent:



~90% of the typical retail or CPG firm's emissions



Retailers are broadening climate initiatives upstream (supplier-facing) and downstream (customer-facing)



Offering guidance to brands on product design and packaging



Requiring emissions targets and regular emissions reporting



Actively helping consumers make lower-carbon choices

Scope 3 focus means impacts on commercial ways of working



In addition to its own initiatives, Amazon is also taking steps to encourage its suppliers and partners to reduce their environmental impact. Beginning in 2024, Amazon will require suppliers to share their carbon emissions data set their own carbon goals. The company is also working with suppliers to reduce packaging waste and increase the use of sustainable materials.



“We are pressured by one retailer to publish and validate Science Based Targets by July 2024 - otherwise we will face penalties and might even be delisted.”

European Oat Mill



TARGET

Actions to Reduce Greenhouse Gas Emissions



Supplier Engagement

Aim for **80% of Target's supplier by spend** (covering all purchased goods and service) **to set science-based scope 1 and scope 2 targets by 2023**



Guest Offerings

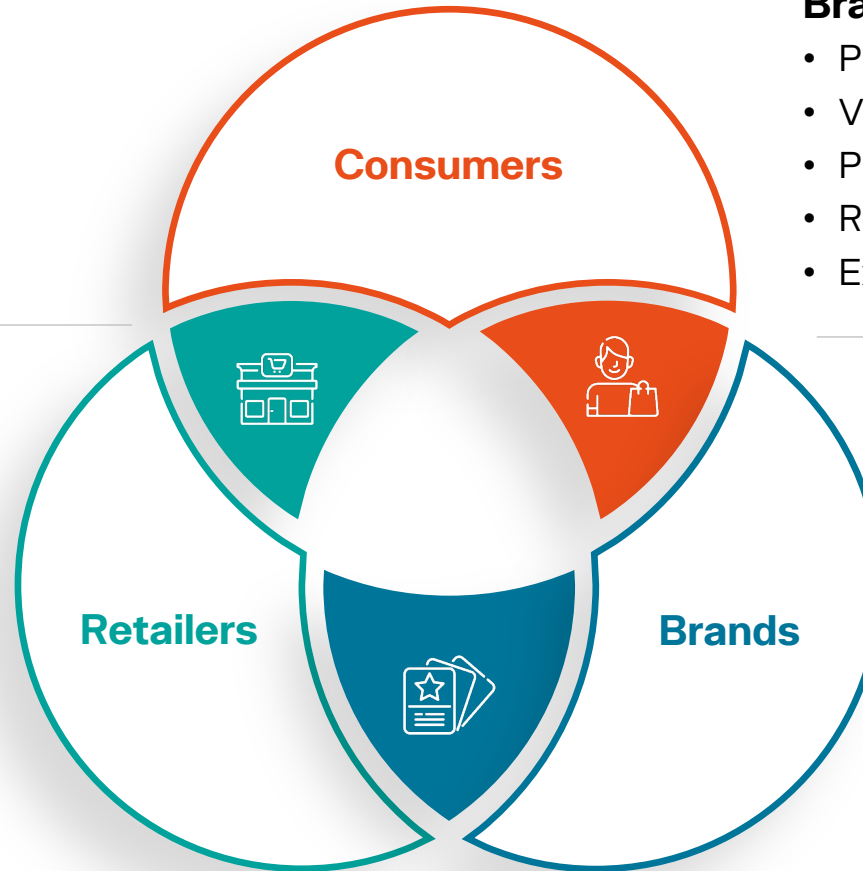
Increase access to sustainable products and packaging through programs like Target Zero

Source **low carbon products, materials and assortments** and increase availability to our guests

Customer experience and ways of working are already evolving

Customer-Facing Impacts Retailers and Consumers

- Store footprint
- Store experience
- Channel mix
- Selection
- Private label emphasis
- Return policies



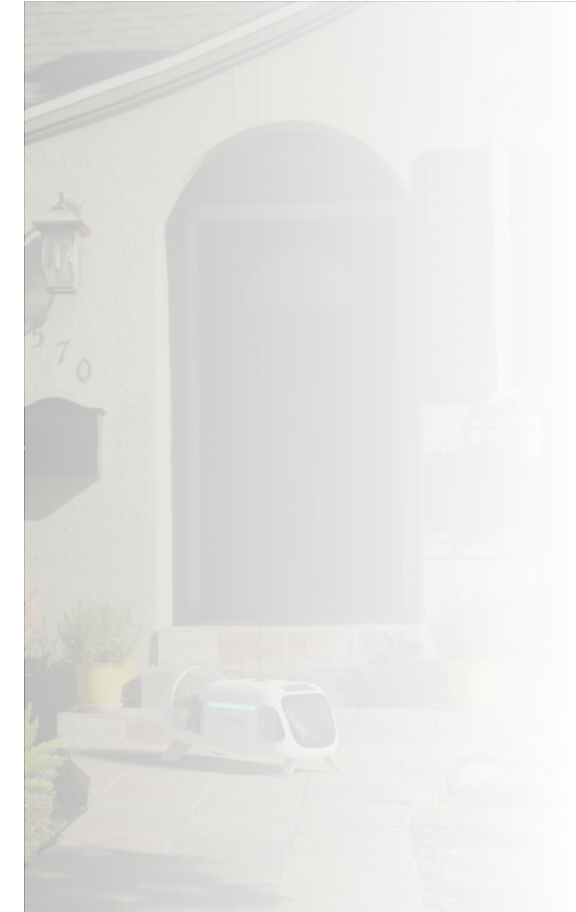
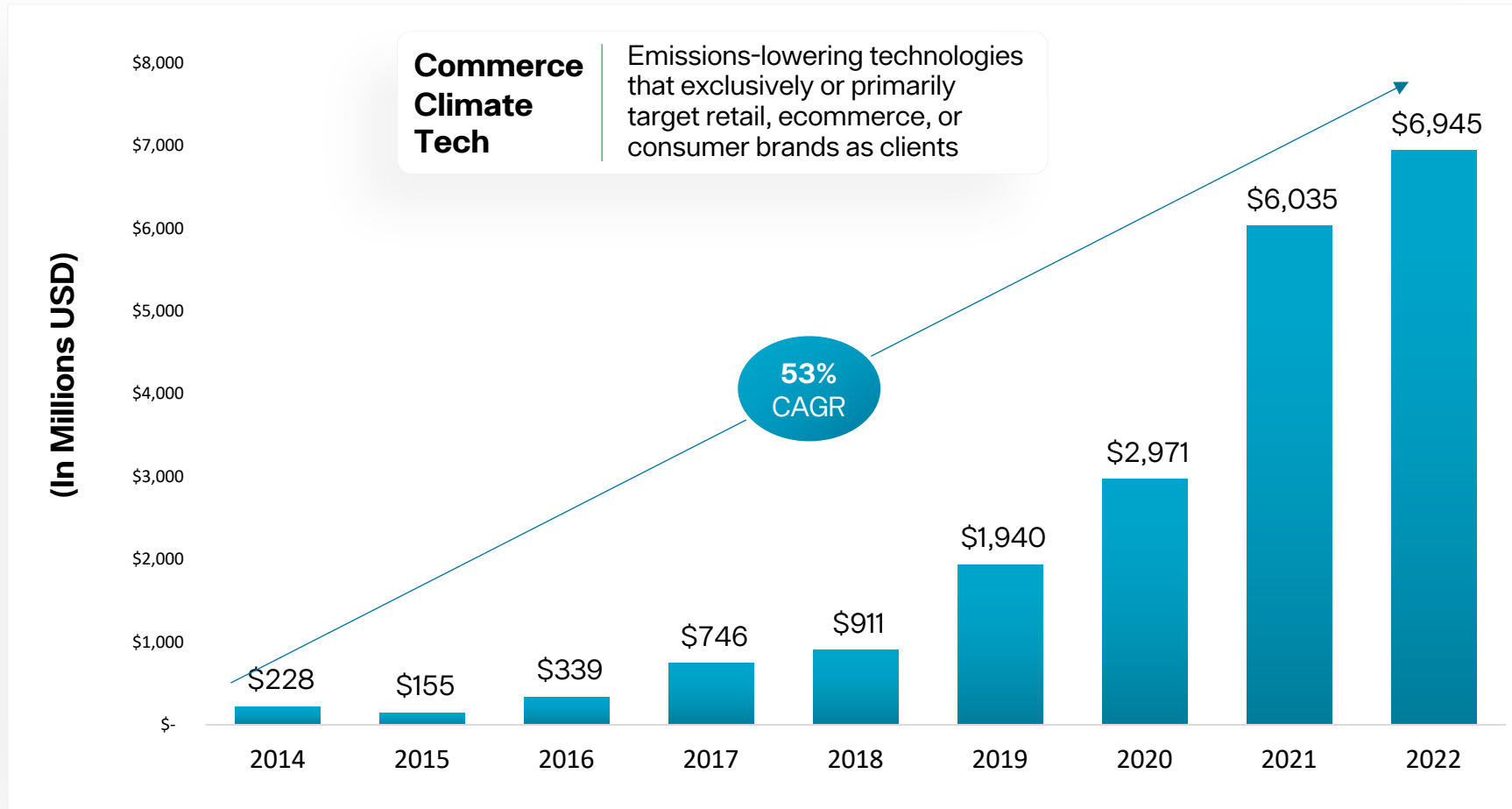
Customer-Facing Impacts Brand and Consumers

- Product design & formulation
- Value proposition
- Packaging
- Repairability
- Extended responsibility

Ways of Working Retailers and brands

- Data requirements
- Buying criteria & assortment strategy
- Packaging
- Logistics
- Marketing & merchandising vehicles

Tech & solutions to decarbonize commerce are soaking up capital - \$20B+ invested

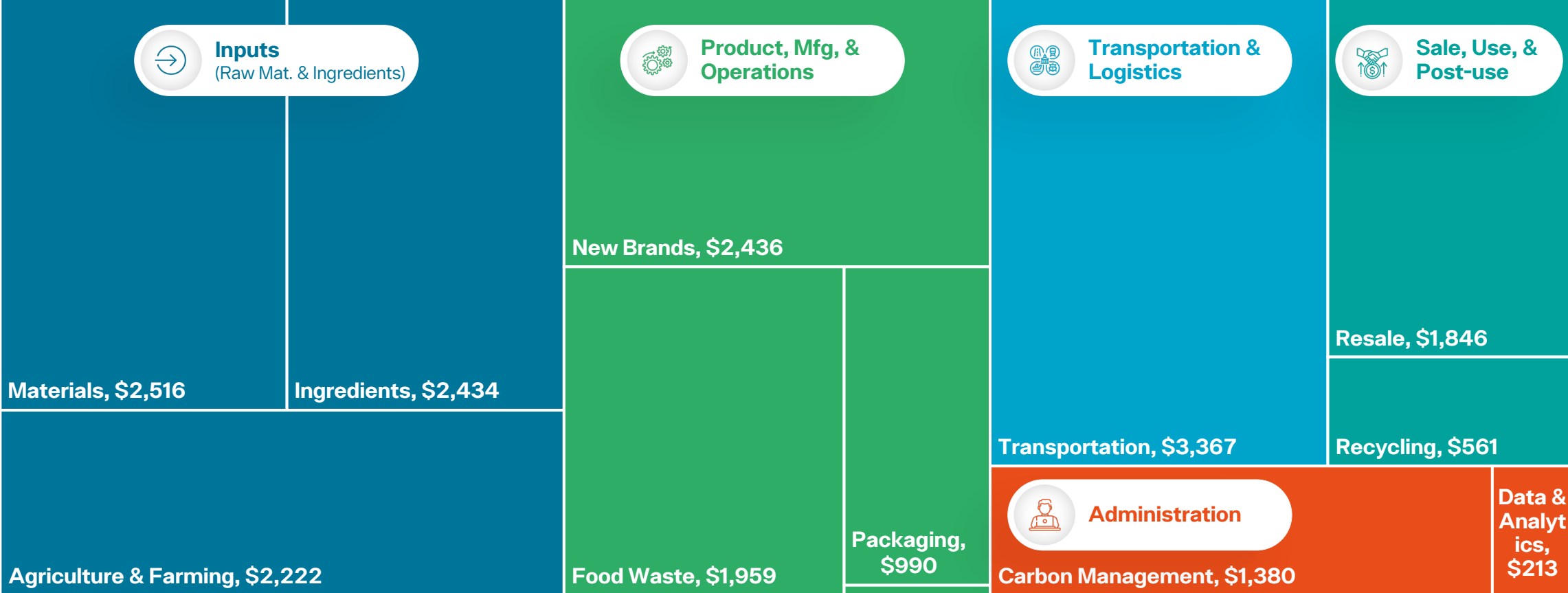


Where the bets are being placed

Commerce Climate Tech

Emissions-lowering technologies that exclusively or primarily target retail, ecommerce, or consumer brands as clients

Capital investment in commerce-oriented climate tech since 2014 (in USD Millions)



Emerging solutions across the value chain

Commerce Climate Tech

Emissions-lowering technologies that exclusively or primarily target retail, ecommerce, or consumer brands as clients



Example solution providers

Select examples – see full database at Decarbonize.co/profiles/

Commerce Climate Tech

Emissions-lowering technologies that exclusively or primarily target retail, ecommerce, or consumer brands as clients

Inputs

Materials



Ingredients



Agriculture & Farming



Product, Mfg, & Operation

New Brands



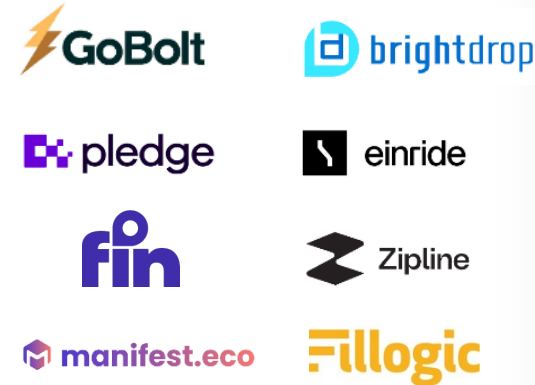
Food Waste



Packaging



Transportation & Logistics



Sale, Use, & Post-Use

Resale



Recycling



Administration

Carbon Management



Data & Analytics



Advertising & Creative



Category attributes will influence commercial outcomes



Carbon-Intense Products

Products that contribute significantly to emissions

- Will face growing pressure from low-carbon competitors & alternatives
- Could face risk of delisting or divestiture from sales channels



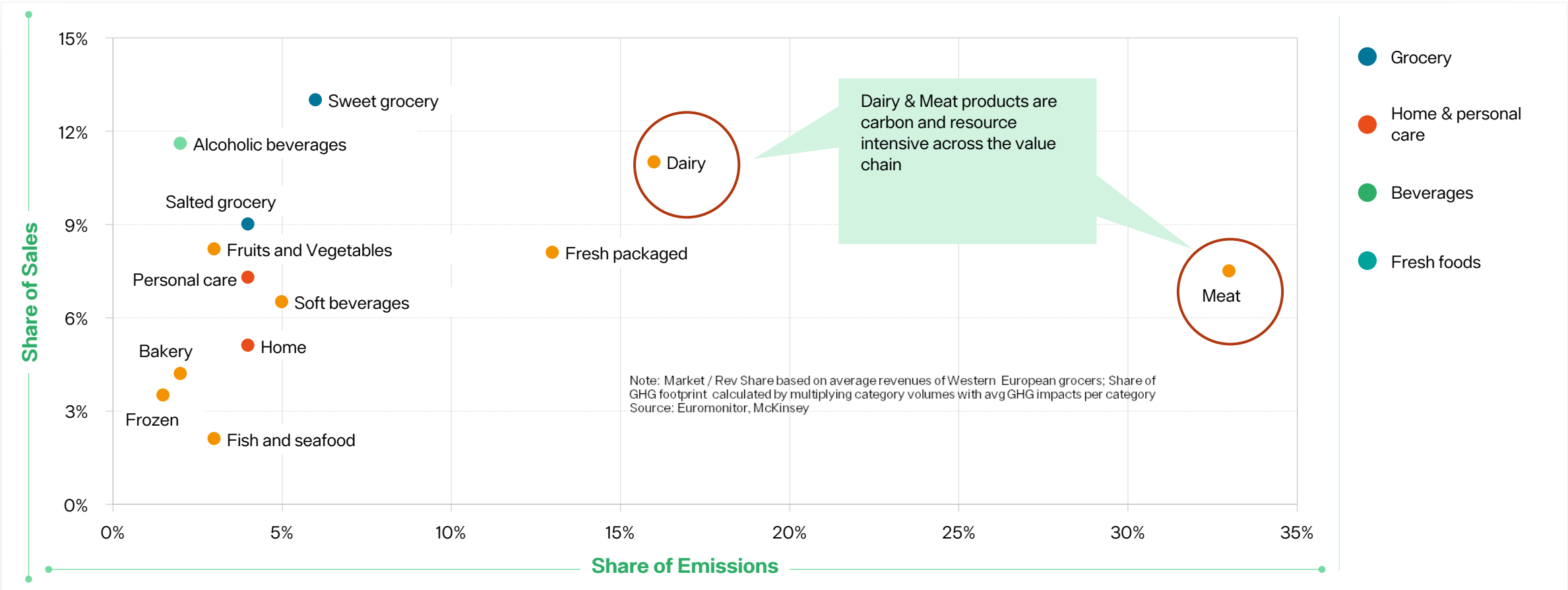
Climate-Sensitive Products

Products whose yield or quality are most sensitive to increasing temperatures and extreme weather

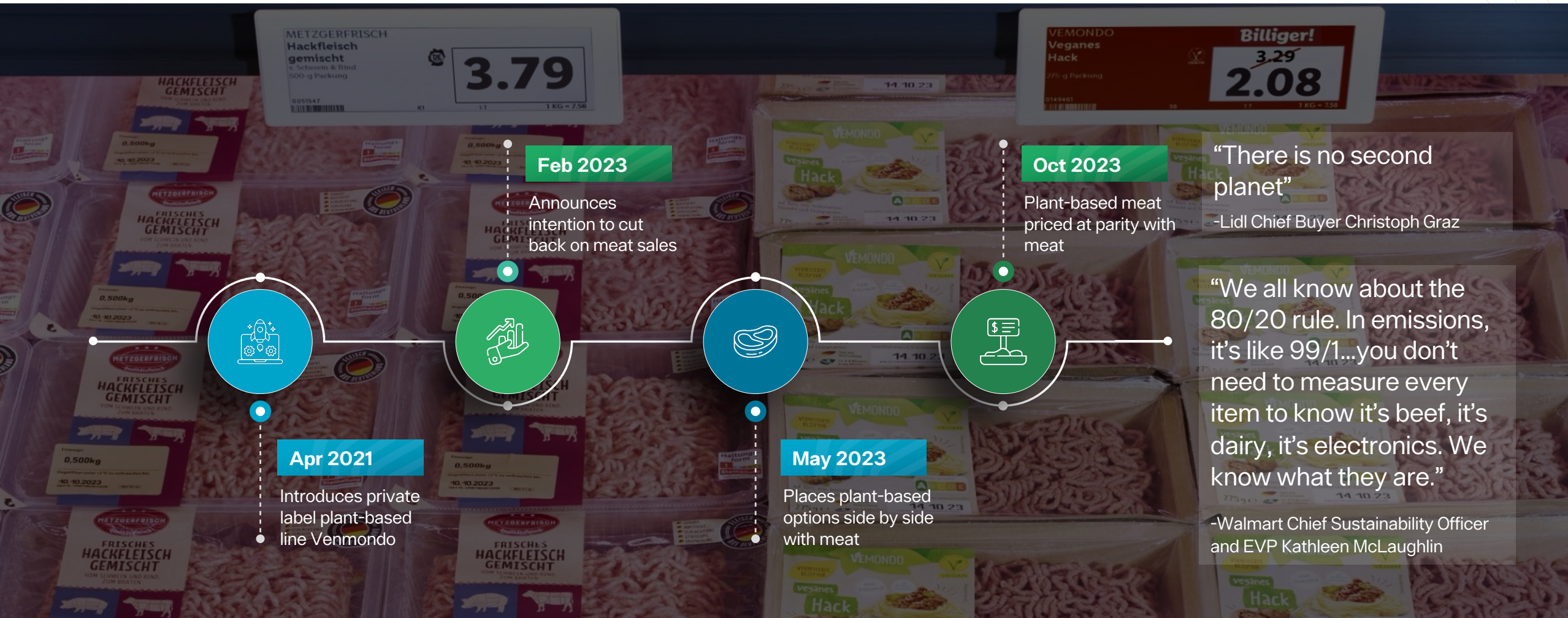
- Potential disruption of supply including lower crop yields and quality of commodities

Carbon-intensive categories will see more innovation and intervention

Grocery share of market vs. share of GHG footprint, 2021



Lidl supporting low-carbon alternatives with a familiar playbook



Some brands are beginning to play offense in-aisle



Quantity and quality of supply also a growing challenge

THE WALL STREET JOURNAL

ics Economy Tech Finance Opinion Arts & Culture Lifestyle Real Estate Personal Finance Health

Climate Change Means Coffee Market Volatility Is Likely to Continue, Lavazza Says

By Anna Hirtenstein and Yusuf Khan

How Climate Change Is Disrupting the Global Supply Chain

The impact of the Covid pandemic on the global supply chain has been widely reported. But extreme weather, from floods to wildfires, is increasingly hammering ports, highways, and factories worldwide, and experts warn these climate-induced disruptions will only get worse.

BY JACQUES LESLIE · MARCH 10, 2022

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World's wheat supply at risk of a dangerous shock due to heat and drought, study warns

New research outlines a worst-case scenario in which extreme weather hammers winter wheat crops in both the U.S. Midwest and northeastern China in the same year.

AP AP News

Cocoa farmers fear climate change lowering crop production

Small-scale cocoa farmers in Ivory Coast say their production is down after unpredictable rains this season.

Nov 12, 2022



REUTERS®

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Climate, environmental change puts 90% of world's marine food at risk, study says

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The global price of olive oil hit a 26-year high



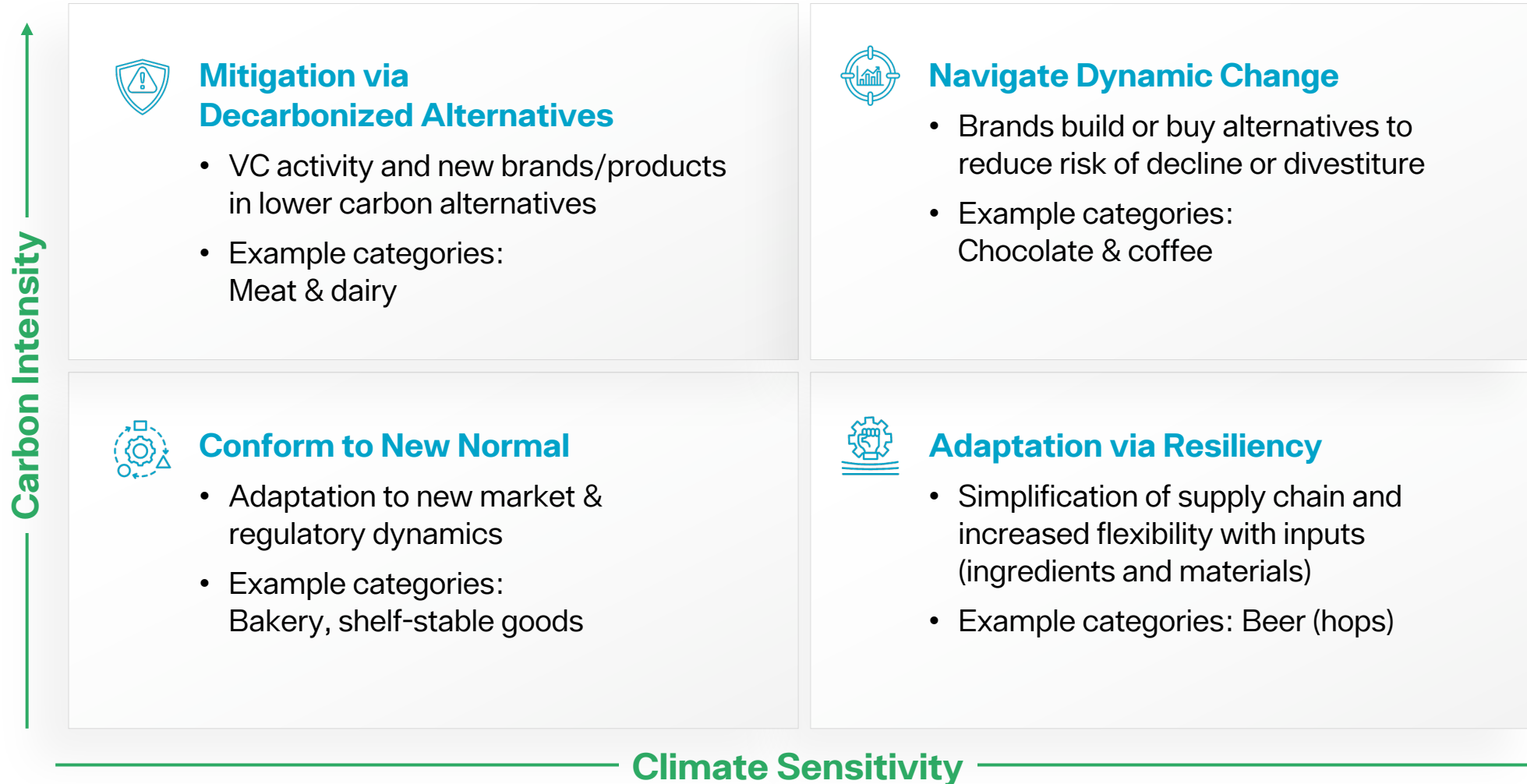
Clarisa Diaz

May 9, 2023 · 2 min read

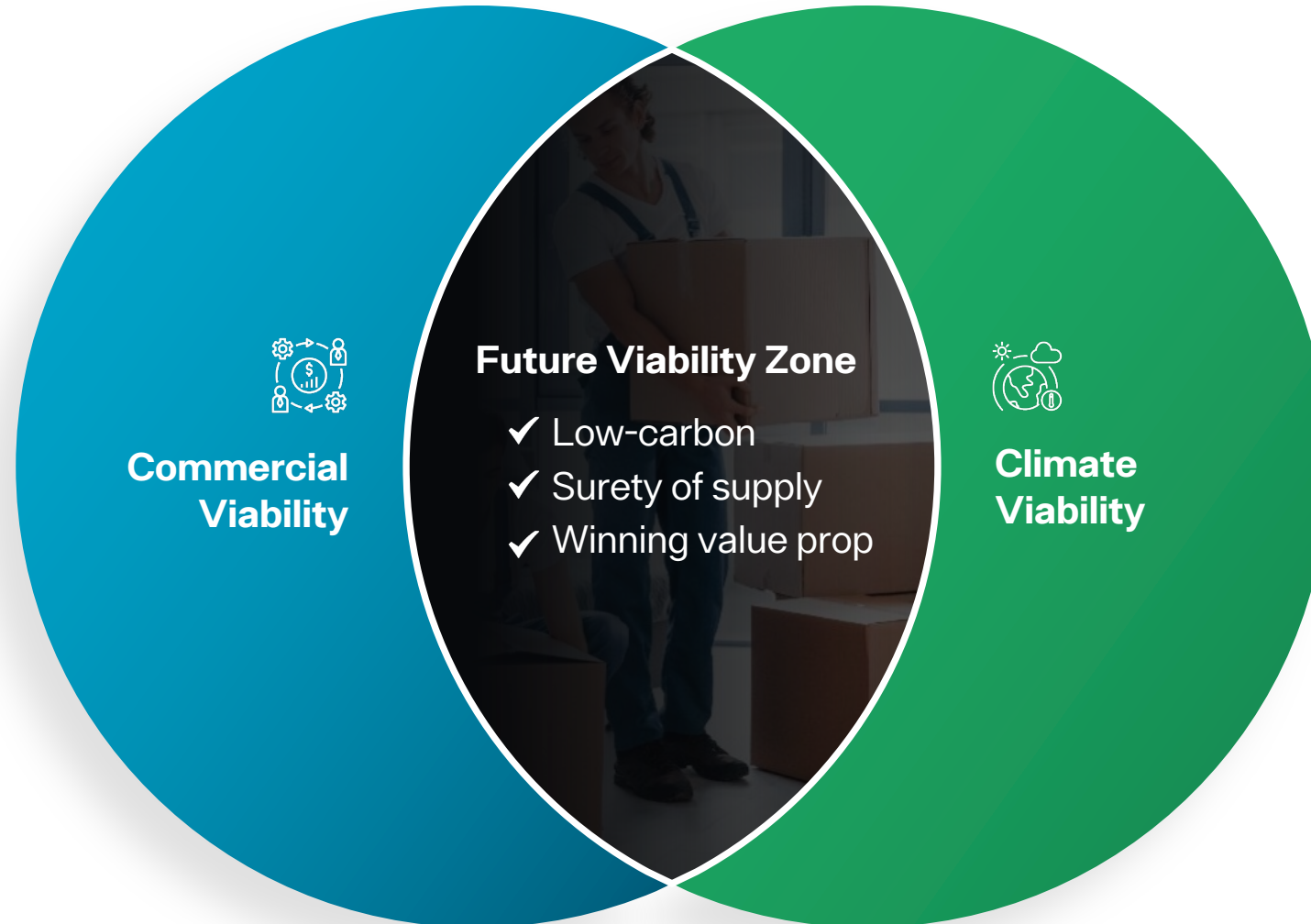


Category attributes will drive industry action

Category-Level Climate Action Priority Matrix



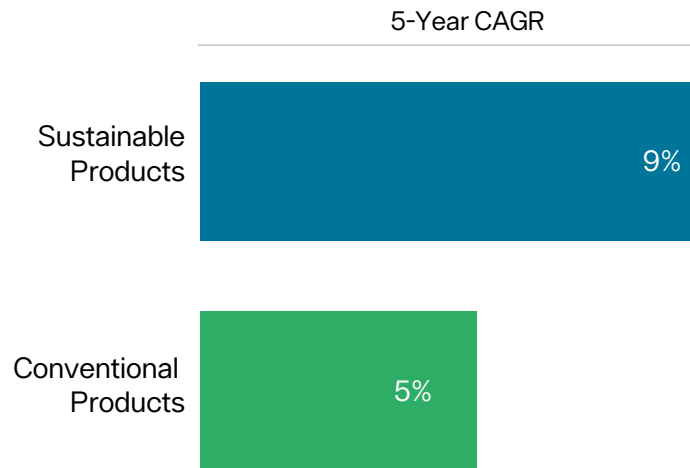
The future viability zone



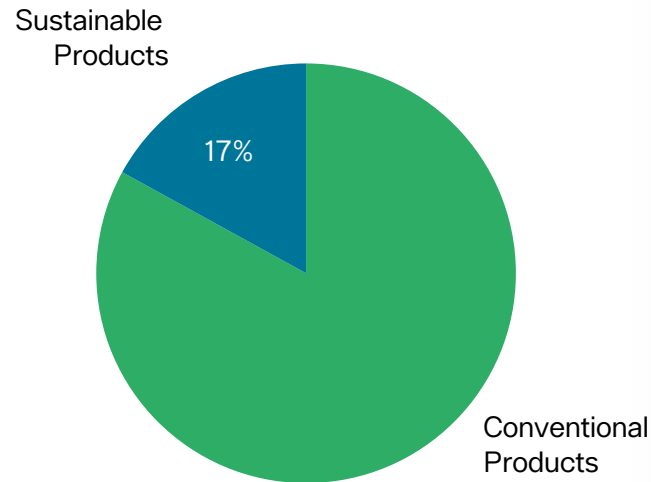
“Sustainable” products’ growth outpaces conventional products, but they haven’t won over the mainstream

Products marketed as sustainable:

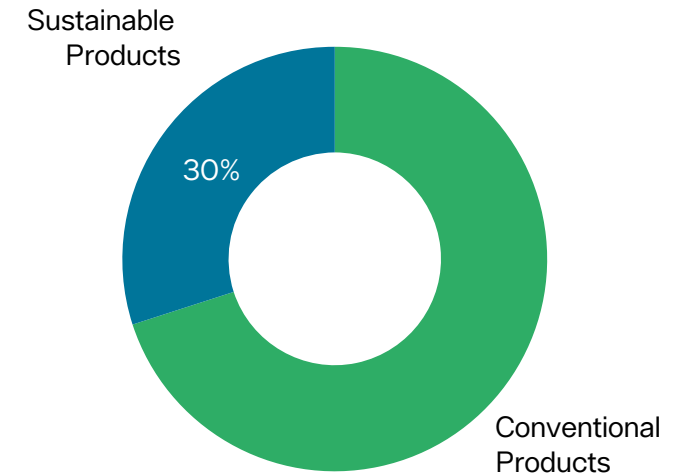
Grew ~2x faster than the rest...



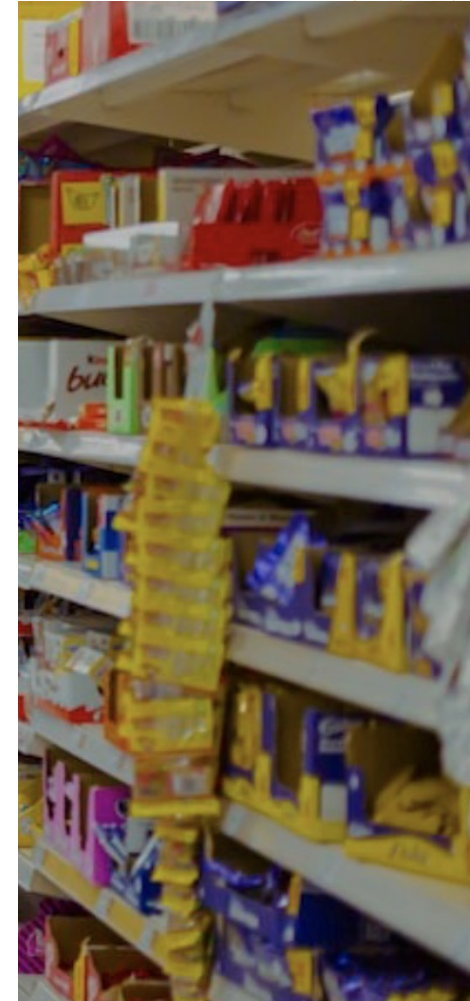
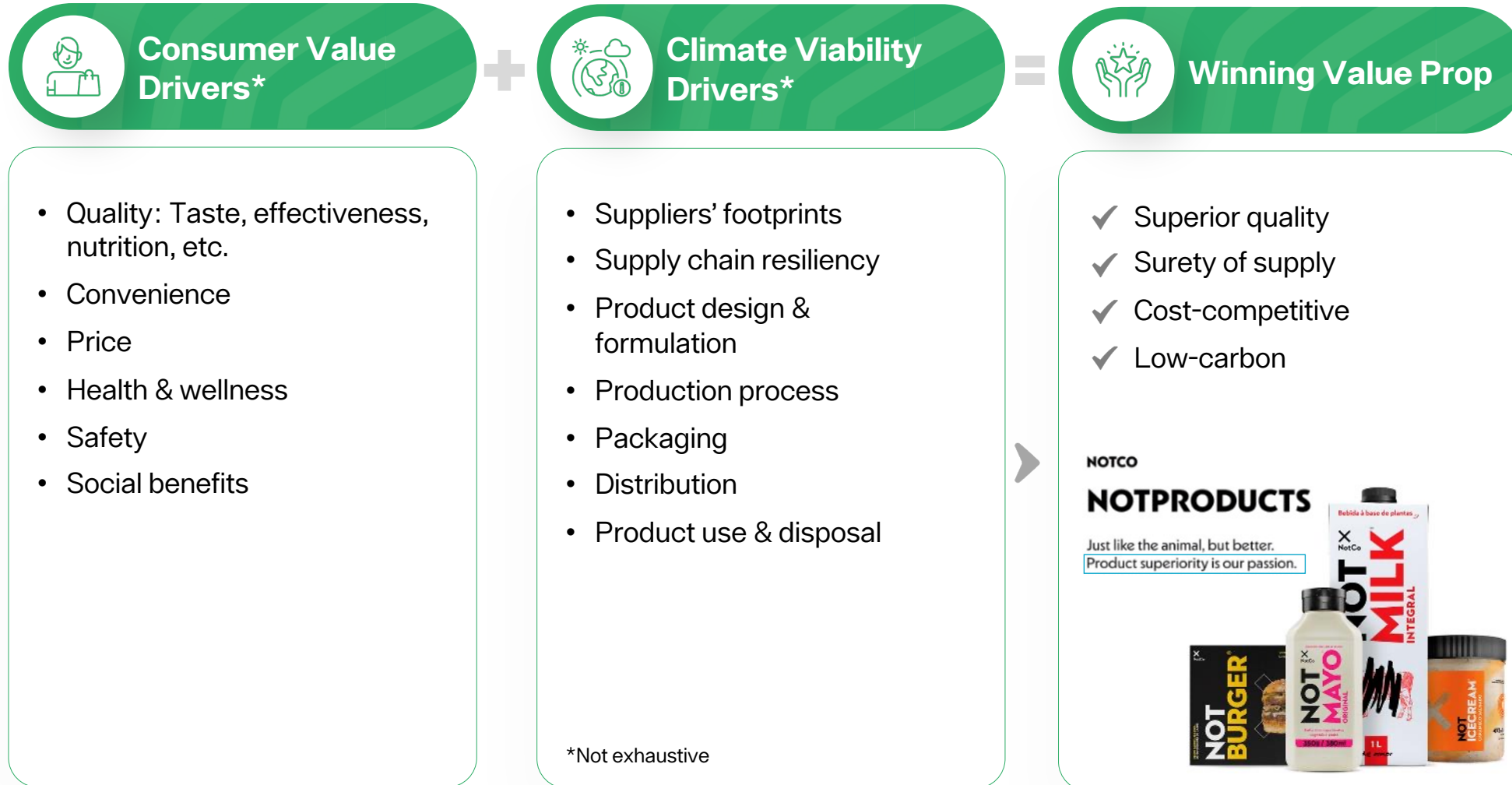
...and despite holding 17.3% market share...



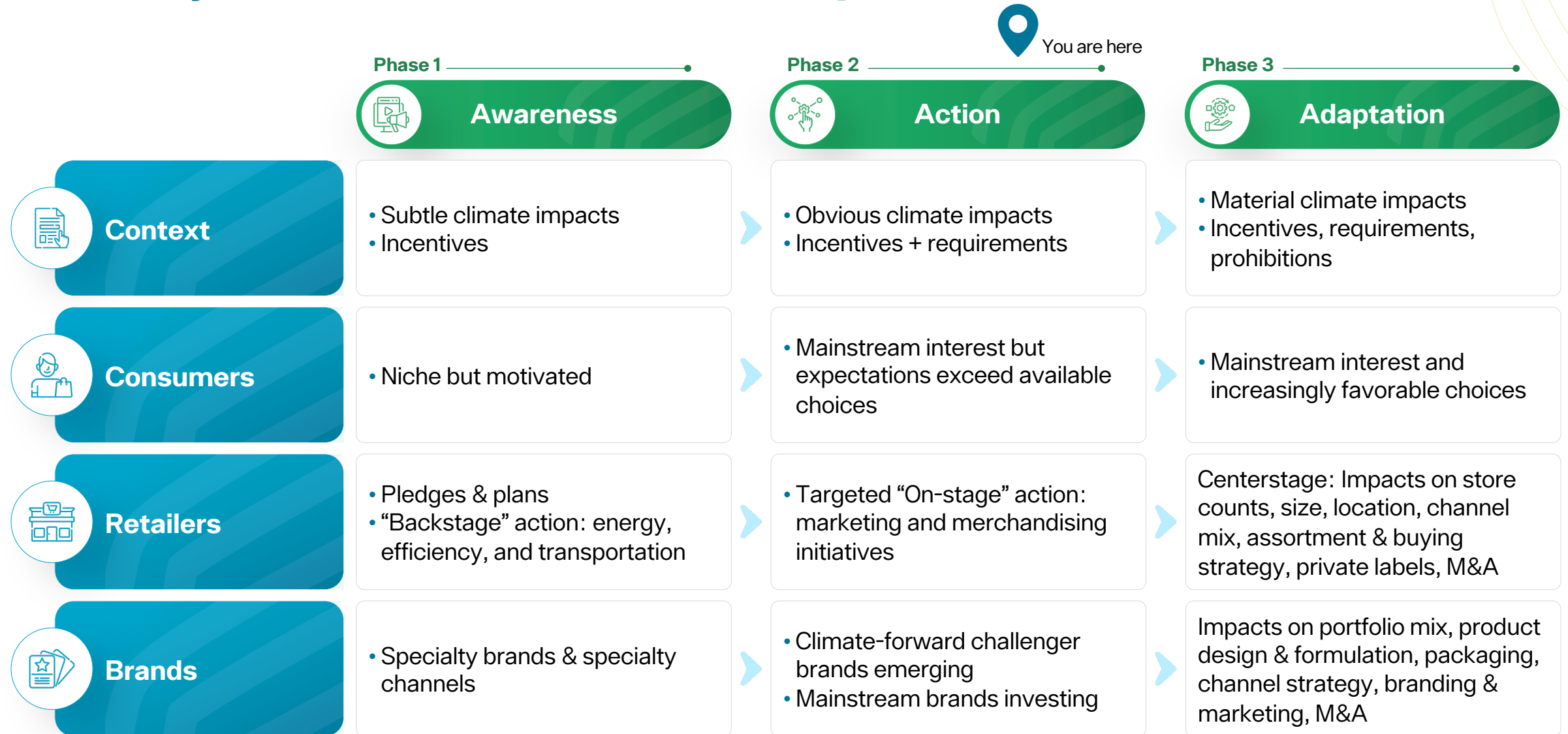
...deliver close to ~1/3 of all CPG growth



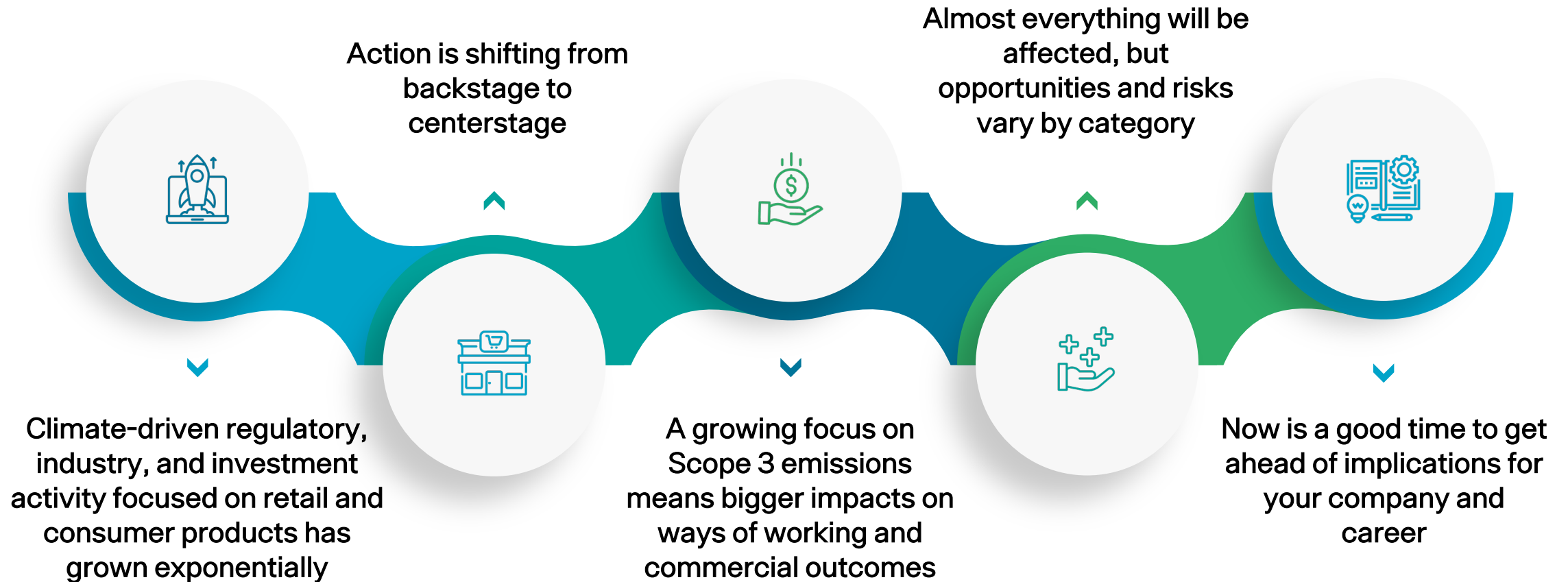
Value propositions will evolve quickly



Industry action is at an inflection point



A decisive decade ahead





**Decarbonizing
Commerce**

Questions or Feedback?

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Founder and Principal Analyst



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<https://www.decarbonize.co>

