

The Visionary CEO's Guide to Sustainability

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From our global team

Sustainability is about taking care of future generations while ensuring economic progress today. Achieving it will require unprecedented change. We don't yet have all the technologies required, we know how hard it is to change behavior at scale, and we need to navigate a regulatory environment that's often difficult to understand.

We don't claim it will be easy or will come without trade-offs, but this report offers a set of ideas, strategies, and tools anchored in practical reality that we believe can help leaders make tangible progress today and tomorrow on this vitally important challenge.



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The Questions Every CEO Needs to Ask About Sustainability

On average, fewer than 40% of companies across sectors are on track to meet their various sustainability commitments, but it's possible to navigate the challenging trade-offs with vision and pragmatism.

By François Faelli and Torsten Lichtenau

It was already clear that climate change is real, but it's gotten a lot more real over the past few months. From Canada to Greece, from India to Texas, citizens, farmers, tourists, and, of course, executives are witnessing the climate crisis up close.

Climate change will create discontinuity for two reasons: first, because we will have to adapt to new environmental and social realities, and second, because we will have to change and invest to prevent further crises.

The science is very clear. It will take a combination of new technologies, new policies, and new behaviors to address the negative consequences that the exponential growth achieved by humans has had on the planet and society. This is evident for greenhouse gases as well as for other aspects of sustainability, from biodiversity to water and human rights to racial equity.

If the science is unambiguous, the implications for society in general and the role of corporations in particular are still being debated, and for the right reasons. This is not just about the money that will have to be invested to fund the green transition—\$4.6 trillion annually by 2030 to reach net zero by 2050, the International Energy Agency estimates. Since the United Nations defined *sustainability* in 1987, it has been clear that reaching its Sustainable Development Goals will require a careful balance between securing the right future for the next generations and protecting the well-being of current ones.

In ancient Greek, the word *politics* referred to managing the city, and as sustainability challenges touch more and more of us, political debate is everywhere. For corporate leaders, the emerging answers vary

considerably depending on geography and industry. Europe is pursuing an ambitious policy agenda but raising questions about European competitiveness vs. other, more cautious economies. While some industries have line of sight into things like affordable new green technologies and the path to more humane supply chains, others seem stuck in an unsolvable price and regulatory conundrum.

We have talked to thousands of executives around the world. They get it. They know they have a role to play and that the public expects them to lead. But they are worried. First, because they are presented with too many simplistic answers to what they know is an incredibly difficult balancing act. Immediately stopping the use of fossil fuels? Well, today they are essential to most human activity and are literally fueling the development of new economies. Focus on short-term profits? But employees and communities expect change, and companies today are trusted to take on their share of environmental and social challenges. By the way, executives are people too, and many see this as their legacy.

The second thing worrying executives is the growing gap between their public commitments and delivery on them. Most large corporations that have committed to reducing greenhouse gas emissions are falling behind. Some 75% of business leaders surveyed by Bain believe they have not effectively embedded sustainability into their business. Bain research has also found that fewer than 40% of major companies across sectors are tracking to their sustainability goals, including those related to water use, waste reduction, and preservation of biodiversity.

Goals that are top of mind for corporate boards and top management, and inspirational to employees, are proving difficult for the P&L owners who must reconcile immediate profit delivery with these environmental and social commitments. Feeling “taxed and told,” they are increasingly allergic to simplistic pictures of the sustainability revolution as a land of opportunity and higher returns.

What to do about all of this? Making these trade-offs calls for a mix of vision and pragmatism. Though no one has all the answers, it is not just possible but essential to act. The Intergovernmental Panel on Climate Change (IPCC), the UN body assessing the science related to climate change, estimates that current policies, infrastructure, and technology would allow for a 40–70% reduction in greenhouse gases by 2050, with certain changes to our lifestyles and behaviors to be built on with greater far-reaching change in order to achieve the world's climate goals.

It's hard to distill a full report, one that we hope offers useful tools and points of view, into advice suited to any executive in any company. Still, there are several things we think leaders can—and should—do today:

1. In your next meeting about your 5- to 10-year strategy, ask the three critical questions below.
2. Push for an “and” agenda: technology *and* behaviors *and* policy.
3. Listen to P&L owners and work to translate their struggles into team-sized challenges.

What good do we bring to the world, and what is our purpose as a company?

What cost will humanity have to pay for us to grow?

What will get in our way, and what will we run short of?

Three questions: purpose, externalities, and shortages

There's a famous quote, often (and probably wrongly) attributed to Albert Einstein, that one should spend most of one's time refining the question rather than working on the answer. We have sympathy for the challenge. Here are the three best questions for executives to ask during their next strategic cycle:

- **What good do we bring to the world, and what is our purpose as a company?** It is incredibly useful to anchor long-term plans on the unique, positive impact a company has on consumers and customers, employees, and communities. A debate over sustainability cannot just be defensive and put teams on their back foot. It should also be about pride and impact.
- **What cost will humanity have to pay for us to grow?** This question might come across as gloomy, but it is critical. Externalities—the unpriced costs of business activities—are increasingly measured, and they will get priced eventually. We need to become much better at understanding what those costs are and how we can mitigate or compensate for them.
- **What will get in our way, and what will we run short of?** We are entering a period of scarcity, shortages, and physical risks. Our plans need to identify the risks that climate change will create. They also need to identify the raw materials or the capabilities we will be short on, from water to cobalt, nurses to programmers, ships to affordable energy.

Three levers: technology, policy, and behavior

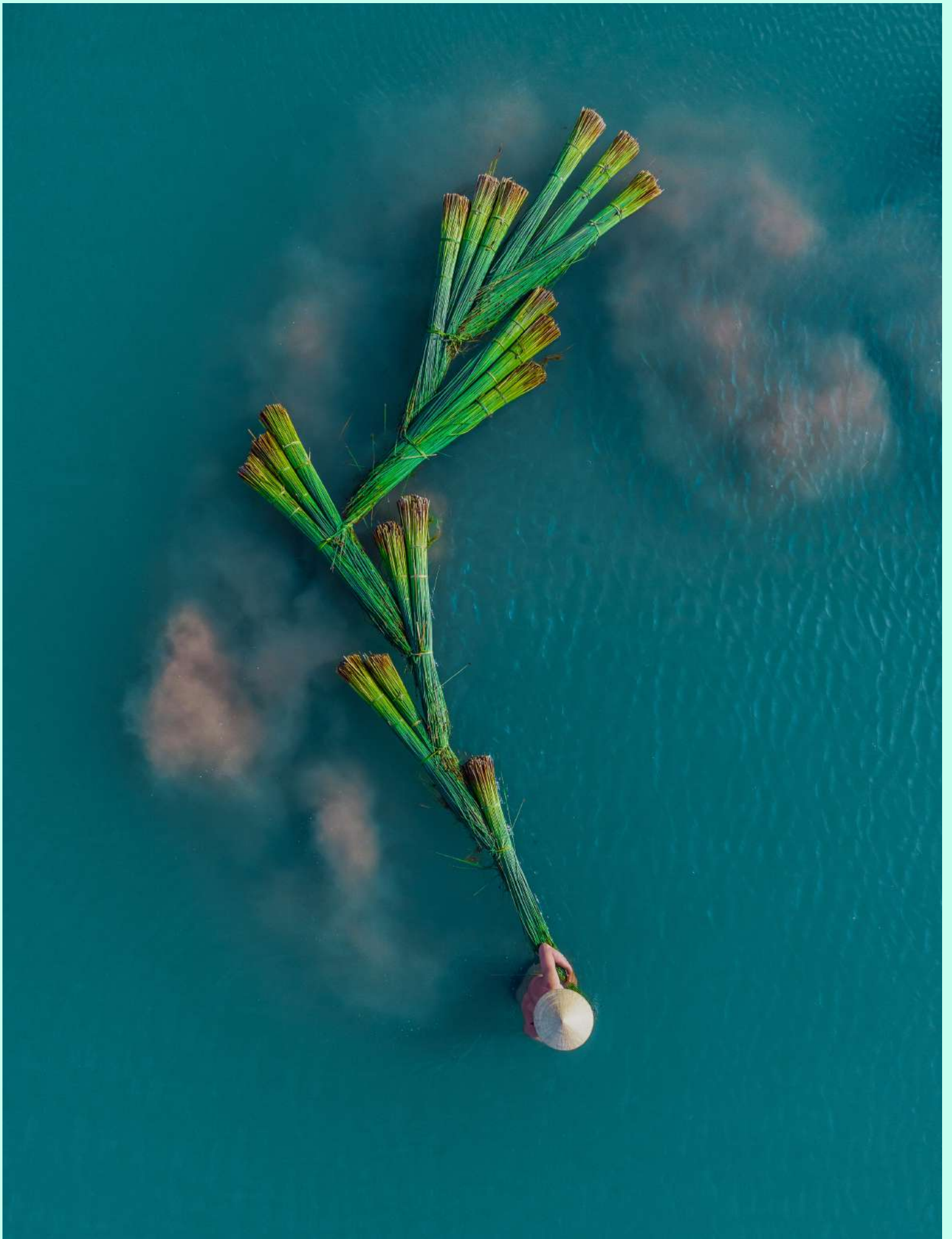
The IPCC 2023 Synthesis Report makes clear that it will take a combination of technology, policy, and behavior change to face our sustainability challenges.

- **Rediscover the technology experience curve.** Many executives today wrongly compare the cost of a long-established brown technology, which is way down the experience curve, with the cost of a very new green technology. Companies need to remember they can drive fast down the experience curve (E-curve), become a market maker, and even create competitive advantages through sustainable innovation.

- **For many, policy and collaboration are new levers.** Not all green technologies will be affordable without the right regulatory environment. Every new strategy should include a point of view on how to build the right regulatory framework and how to work precompetitively as an industry to create it.
- **Consumer behavior is eminently actionable.** Too many executive teams consider consumer behavior to be fixed and worry that people will not pay for sustainable offers. Our data shows this is at least partially wrong. The majority of global consumers recently surveyed by Bain expect to spend more on sustainable products in the next three years, and some consumers are already doing so. Bain's 2023 Consumer Lab ESG Survey found consumers are willing to pay a premium of 12% on average for minimized environmental impact, and the most concerned consumers will pay significantly more depending on the product. This sentiment is growing, and, in our research, consumers report that direct exposure to climate events has caused concern to rise.

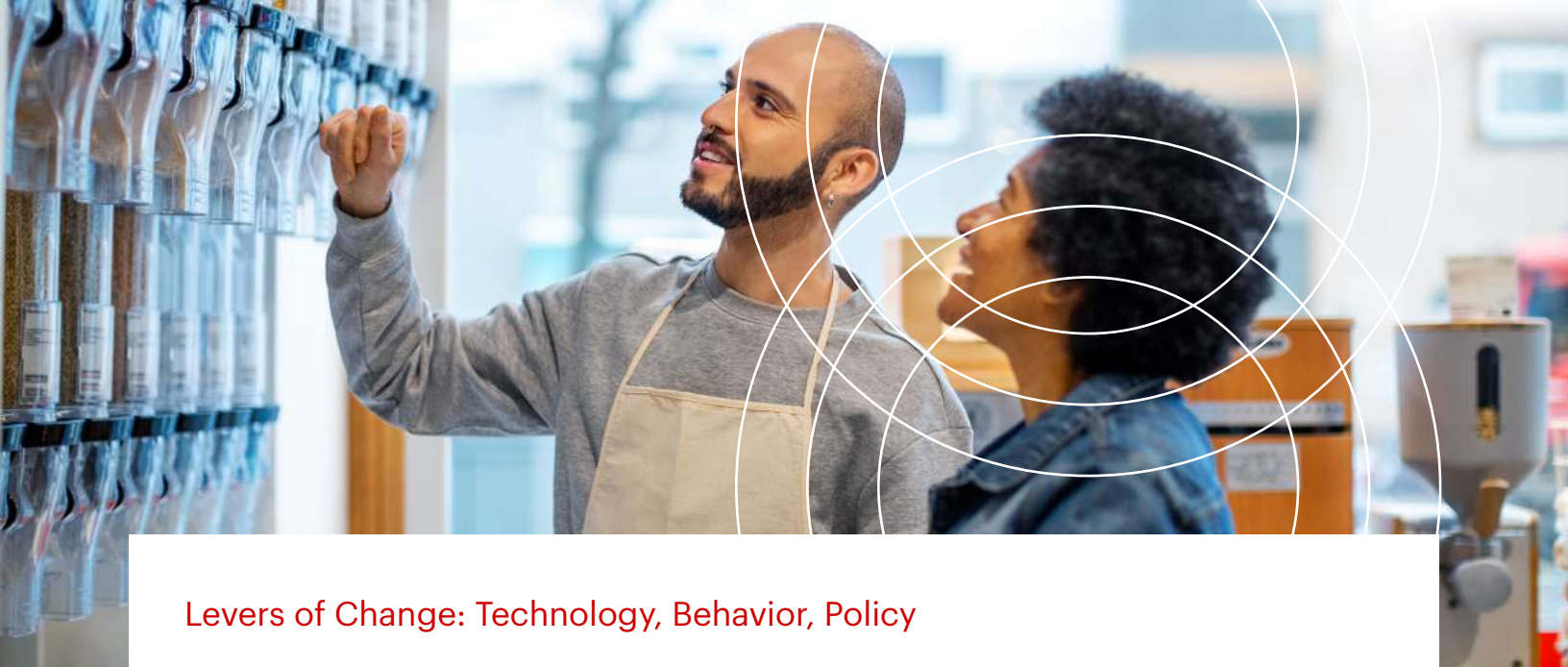
Making sustainability a team-sized challenge

There is a way to help P&L owners who feel taxed and told: Discuss the trade-offs they face and align your teams on how to solve them. Ultimately, the key is to translate broad ESG commitments into team-sized challenges that can become new routines or new innovations. This is very easy to write and very difficult to do, but by tapping the creative energy of your people, it is possible to make real progress toward a more sustainable future.



Levers of Change: Technology, Behavior, Policy

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Levers of Change: Technology, Behavior, Policy

Selling Sustainability Means Decoding Consumers

We asked more than 23,000 global consumers what they really want. What we found will surprise you.

By François Faelli, John Blasberg, Leah Johns, and Zara Lightowler

At a Glance

- ▶ New research by Bain's Global Consumer Lab has helped us understand consumers' views on sustainability and how they are influencing buying behavior.
- ▶ Companies selling sustainability need to acknowledge and address a fragmented consumer base—not assume that developed-market or younger consumers are more concerned about the environment, for example.
- ▶ Different consumer segments define sustainability differently, and many make choices based on misconceptions.
- ▶ Companies tend to focus on technology adoption when devising strategic plans, but regulations and consumer behavior are moving just as quickly and have as big an impact.

To understand the important implications of climate change on consumer behavior, we surveyed more than 23,000 global consumers about a broad set of sustainability issues. We asked them what they care about now, what they know, and what they buy (and don't buy). We followed that up with extensive conjoint analysis and ethnographic research, speaking directly to hundreds of consumers.

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The counterintuitive findings are relevant for consumer-facing businesses as diverse as brands, retailers, and airlines, as well as for business-to-business companies in everything from industrials to chemicals to packaging, whose customers ultimately sell to consumers.

Across markets and consumer segments, our research revealed dramatic—and unexpected—variations in consumers' behavior and relationship to sustainability, and how their views are rewriting the rules for companies.

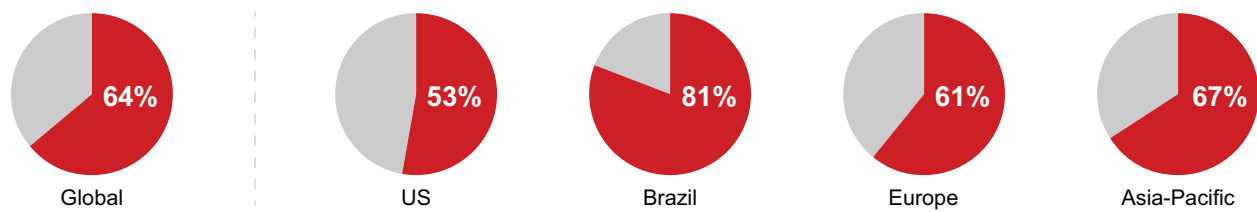
What we found

Worldwide, 64% of consumers reported high levels of concern about sustainability (see Figure 1). And that sentiment is increasing. The majority of these consumers told us that their worries have intensified over the past two years and that their concern was first prompted by extreme weather.

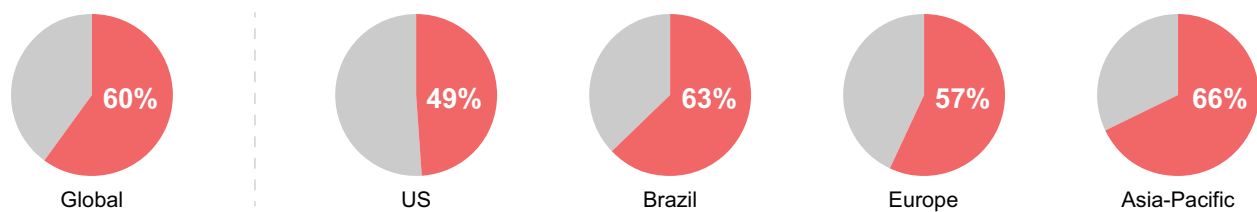
Our research found that 79% of consumers in fast-growing markets like China, India, and Indonesia are concerned about environmental sustainability, compared with 55% in developed markets like the US and Europe (see Figure 2).

Figure 1: Globally, 64% of consumers are highly concerned about sustainability, and their worries are mounting

Percentage of consumers who are very or extremely concerned about environmental sustainability



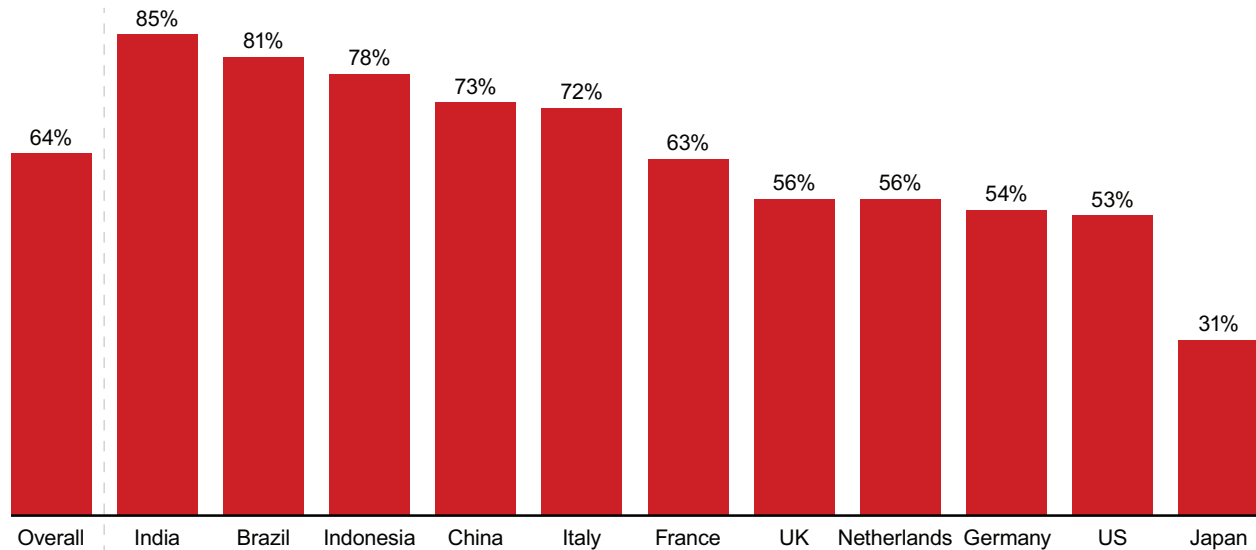
Percentage of consumers whose climate change concerns have intensified over the last 2 years



Source: Bain Consumer Lab ESG Survey, June 2023 (n=23,374), including US, Brazil (reweighted by income and region), Europe (France, Germany, Italy, Netherlands, UK), and Asia-Pacific (China, India, Indonesia, Japan)

Figure 2: Consumers in fast-growing markets are more concerned about sustainability than those in developed markets

Percentage of consumers who are very or extremely concerned about environmental sustainability



Source: Bain Consumer Lab ESG Survey, June 2023 (n=23,374)

Many companies have long viewed younger consumers as more focused on sustainability than their older counterparts, but the reality is not as clear-cut. For example, 72% of Gen Z consumers and 68% of boomers globally are very or extremely concerned about the environment, but in countries as diverse as India, France, and Japan, boomers are more concerned.

In the US, 96% of consumers agree that the climate is changing. Among those concerned about the environment, 85% of self-described liberal voters are very or extremely concerned about climate change, compared with 39% of conservative voters. Yet conservatives worry about specific issues such as water, biodiversity loss, and air pollution relatively more than liberals, who worry more about climate change (see Figure 3).

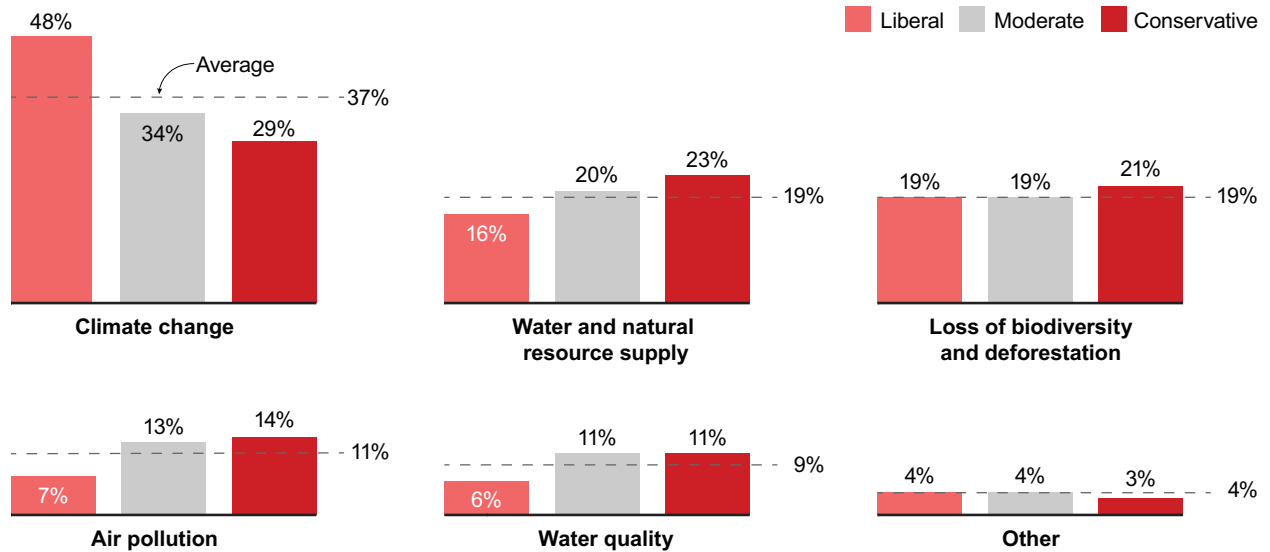
As those concerns grow, consumers are looking to make environmentally sound choices and are willing to pay more for sustainable products. Yet, they often run into barriers. For example, consumers in the US are willing to pay an average premium of 11% for products with a minimized environmental impact (see Figure 4). However, 28% is the average premium for products marketed as sustainable in the US.

In our survey, 50% of consumers said sustainability is one of their top four key purchase criteria when shopping. Yet they may be making decisions based on misconceptions—significantly lowering the number of truly sustainable purchases. When asked to determine which of two given products generated higher carbon emissions, consumers were wrong or didn't know about 75% of the time.

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Figure 3: Among those concerned about the environment in the US, liberals are more worried about climate change; for conservatives, natural resources and biodiversity are more important

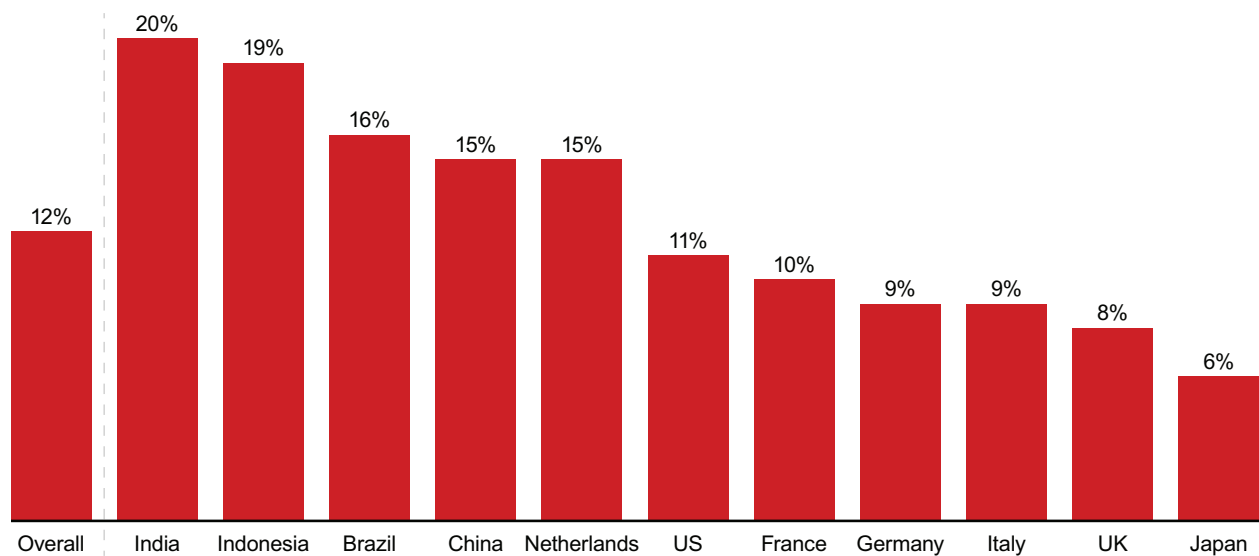
Percentage of consumers who are most concerned about ...



Source: Bain Consumer Lab ESG Survey, June 2023 (n=2,031)

Figure 4: Consumers report that they're willing to pay more for sustainable products

Consumers' reported incremental willingness to pay for sustainable products



Source: Bain Consumer Lab ESG Survey, June 2023 (n=23,374)

In addition to such “unknown unknowns,” consumers adopt different definitions of sustainability. Globally, 48% of consumers consider how products are used when thinking about sustainability. These consumers are more concerned about how a product can be reused, its durability, and how it will minimize waste. In contrast, most companies sell sustainable goods based on factors such as how they are made, their natural ingredients, and the farming practices deployed. These factors cause many consumers to conflate “sustainable” with “premium.”

One result of this disconnect: Almost half of all developed-market consumers believe that living sustainably is too expensive. By comparison, roughly 35% of consumers in fast-growing markets believe that it is.

Cultural norms and financial realities play a big role in consumer behaviors. In fast-growing markets, individuals can become more sustainable by going with the grain of society—by buying at local shops, generating less waste, and eating a traditionally plant-heavy diet, for example. In developed markets, embracing a sustainable lifestyle means going *against* the grain of a consumption culture by avoiding excessive purchasing as well as readily available and affordable conveniences.

Consumer behavior can change more quickly than many companies anticipate, with external factors such as government regulation heavily influencing the market. China began offering financial incentives on electric vehicles in 2009; now 19% of Chinese consumers report driving an electric car, compared with 8% of consumers globally. In England, the use of single-use supermarket plastic bags has fallen 98% since the government began requiring retailers to charge for them in 2015.

What this means for companies

The momentum behind sustainability and dynamic shifts in consumer behavior have profound implications for any company. We see four critical areas of focus.

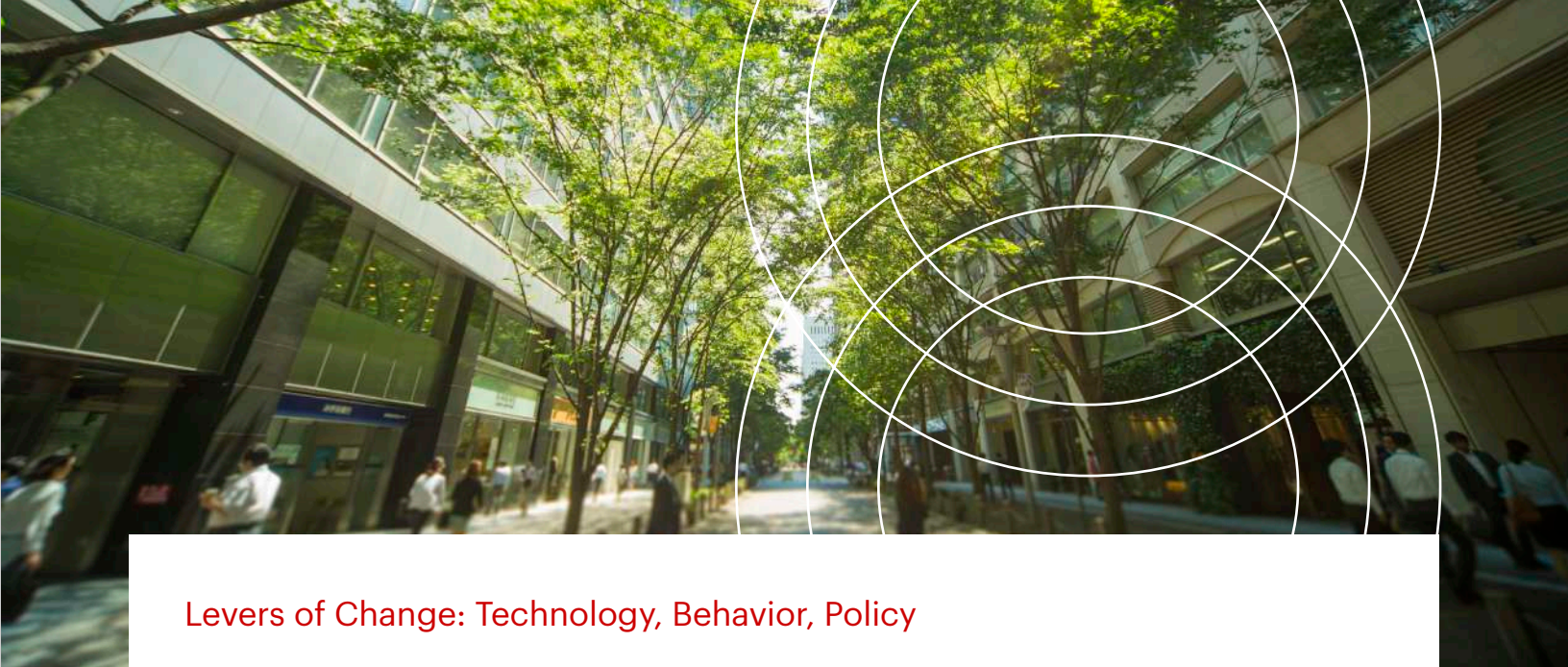
Devise a future-proof and flexible strategy. It's undeniable that what's important to consumers is changing faster than companies can keep up. Few companies plan beyond the typical 3-year strategic planning window, and even those that do look out 5 to 10 years tend to focus on expectations for technology adoption. These plans fail to fully consider two other factors that move just as rapidly and with as big an impact: regulations and consumer behavior.

Acknowledge a fragmented consumer base. Another lesson from our research points to the need to deaverage consumers. Traditional assumptions about consumers and sustainability no longer apply. For example, it's wrong to assign more importance to developed markets and to younger consumers, or to assume that all consumers take the same approach to sustainability or define it the same way. Companies need to innovate products and design propositions that appeal to different segments—local markets, consumers with different definitions of sustainability, and consumers with a range of purchasing motivations. Only the most passionate consumers make sustainability their sole purchasing criterion. Most base their choices on a combination of factors, from price to convenience to how a product will fit into their lifestyle. The challenge for companies is to strategically align sustainability with the key purchase criteria of the category.

And when selling sustainability to frugal consumers, companies need to think of ways to maintain touchpoints while offering them products that last longer or can be reused (in other words, selling them less of the product). Instead of simply selling a greener version of a product at a premium, companies need to take care of the rest of the equation, factoring in circularity, lifestyle, and economics.

Test and learn to determine what works—and repeat. In such a fluid environment, companies can lean aggressively on marketing experimentation, using digital tools to quickly test the sustainability messages that resonate with different segments and adapt accordingly. It's a way to help consumers gain enough clarity to make decisions that are consistent with their values. For companies, experimentation reveals new data and insights at a deep, specific level, complementing traditional marketing research. Leaders in marketing experimentation often can prove or disprove a hypothesis within weeks. Once established at scale, a robust experimentation capability can enhance marketing-mix or econometric modeling and bring teams closer to their customers. It's a recipe for both higher marketing ROI and stronger sales growth (see the Bain Brief “Can Marketing Experimentation Become Your Superpower?”).

Get out in front of regulations. As we've seen throughout the world, government policy inevitably becomes a huge contributor to changing consumer behavior. Countries as diverse as Japan and Lithuania offer solar rebates. No fewer than 85 jurisdictions around the world have implemented a form of sugar tax. Across all industries, companies need to be at the forefront of helping to shape the regulations affecting their business. As global warming progresses, government intervention will grow bolder. A company's ability to anticipate policy shifts and build future-proof portfolios will help determine whether it can outpace competitors.



Levers of Change: Technology, Behavior, Policy

Does a Purpose Help Brands Grow?

There's a distinct path to differentiating a brand by delivering higher-order Elements of Value®.

By Eric Almquist, Kelly Edwards, Philip Dowling, and Ashley King

At a Glance

- ▶ Brand purpose and environmental, social, and corporate governance (ESG) considerations are now key purchasing criteria for more than half of consumers globally, according to our recent survey.
- ▶ The Elements of Value® provides a data-driven way for companies to understand the types and amount of value that consumers experience in their brands, and how that compares with other brands.
- ▶ Our continuing research has led us to add seven ESG-related Elements of Value; brands that scored the highest on those elements achieved five times the revenue growth of those that scored the lowest.
- ▶ To successfully differentiate, brands will not only embed sustainability values into their current products and actions; they'll also make those values part of their core marketing efforts.

The year was 2004, and Unilever's Dove brand made an unlikely move. It erected a series of billboards replacing professional models with regular women. The goal of the pioneering campaign: to make women feel comfortable in their own skin and to create a world where beauty is a source of confidence

and not anxiety. The campaign was extended across media, with results that were as dramatic as the marketing approach itself. While the body care subcategory in the US grew by an average 2.8% from 2004 to 2009, Dove's revenues grew more than three times that—an average of 8.7%—and consumer goods companies in categories as diverse as household cleaners and yogurt caught a glimpse of a future in which inclusivity, as well as the other higher-order considerations, rose as growing factors for consumers.

Just how vital is a brand's purpose to consumers? Environmental, social, and corporate governance (ESG) concern is no longer a demand from a niche minority; it has become a top-three key purchasing criterion for more than half of consumers globally, according to our recent survey of nearly 200,000 consumers in four countries and nine consumer categories. Another significant finding with big implications for consumer goods companies is that consumers are personally “divesting” from brands with poor diversity, equity, and inclusion (DEI) and social track records. For example, 33% of the Generation Z consumers we surveyed (ages 18 to 24) in the US say they'd boycott a brand with bad labor practices.

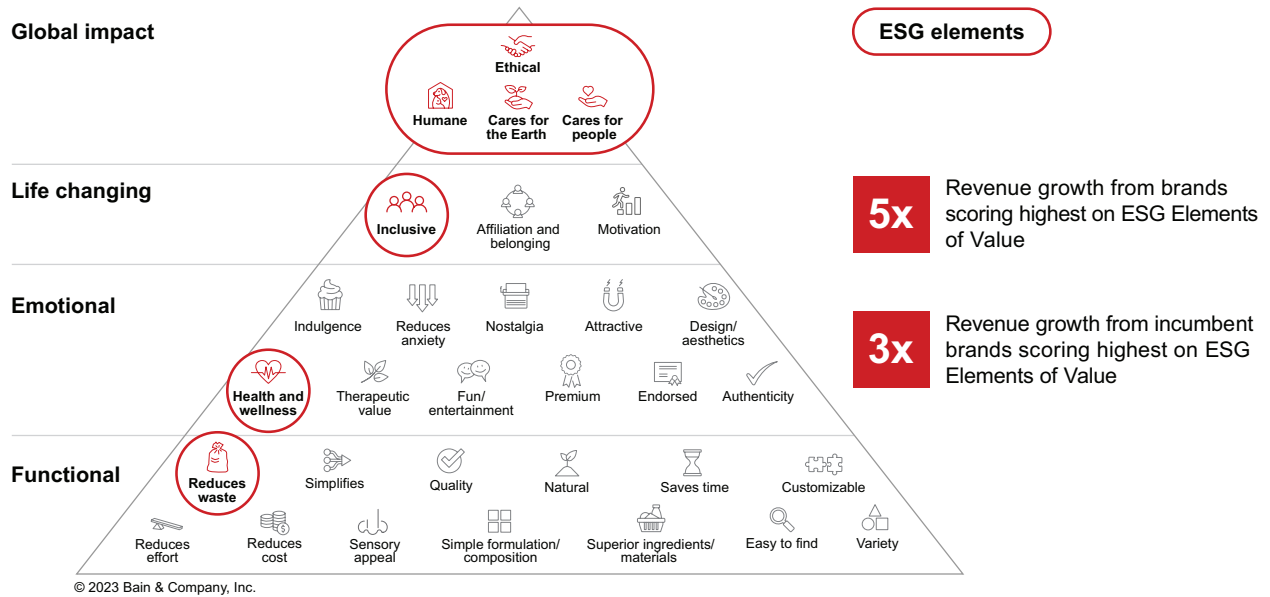
To understand what underpins a consumer's perception of value, in 2015 we identified 30 fundamental types of value in their most essential and discrete forms. These Elements of Value® fall into four categories: functional, emotional, life changing, and global impact (see the *Harvard Business Review* article “The Elements of Value.”) The Elements of Value pyramid provides a data-driven way for companies to understand the types and amount of value that consumers experience in the brands they buy, and how that compares with other brands. EOv is focused on brand differentiation, whereas other brand metrics like brand awareness and brand power address brand salience. Focusing on both is critical to superior brand growth.

Since introducing the Elements of Value, we've continued to monitor consumer behavior and adapt those elements where necessary. As consumer attitudes toward products and services shifted from “What does it do?” to “How does it make me feel?” “How does it change my life?” and “How does it change the world?” companies needed to evolve with them by also delivering higher-purpose elements such as “ethical,” “cares for the Earth,” or “inclusive.” Bain has responded to this shift by periodically updating the Elements of Value (see *Figure 1*). Using advanced statistical methods, we've replaced several elements from our pyramid in recent years, while identifying and adding seven unique and important sustainability-related values. The update provides companies with an effective method for tracking their ability to deliver on the values that are becoming increasingly important to consumers.

Our continuing research demonstrates that the positive link between delivering elements and business outcomes holds. Most brands meet the threshold for such functional needs as “quality” and “sensory appeal,” attributes that are essentially table stakes for most categories (although table stakes vary somewhat by category and country). The more elements that a brand delivers, the better its revenue growth, household penetration, and repurchase rates. That outperformance multiplies when companies earn elevated scores on higher-order values.

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Figure 1: Brands that differentiate on ESG Elements of Value® outperform on revenue growth



Notes: High-scoring brands are in the top 10 percentile of respondents rating the brand 8+ on ESG Elements of Value, compared with brands in the bottom 10 percentile; excludes brands with average annual revenue growth rates higher than 80% year-over-year; Elements of Value® is a registered trademark of Bain & Company, Inc. Sources: Bain Global Elements of Value in CP Survey, November 2022 (n=178,000); data include 174 total brands, 140 incumbents; revenue growth rates from Nielsen; Euromonitor; GlobalData

Across all brands, those that scored the highest on the seven sustainability elements achieved five times the revenue growth of those that scored the lowest, according to our research. When we looked only at incumbents, the revenue growth was three times better than competitors scoring the lowest on sustainability elements. In China, L’Occitane outdelivers on these elements, and in 2019 to 2021 achieved three times the revenue growth of a competitor that focused on table stakes elements. In Germany, Lindt outperforms on most emotional elements and earned more than twice the average revenue growth vs. similar chocolate brands sold in the German market.

The message is clear: There’s a sizable opportunity for consumer goods companies to capture consumer interest in higher-purpose types of value. To successfully differentiate, brands will not only embed sustainability values in the core of their product, their actions, and category growth/innovation model; they’ll also follow a distinct path to make those values part of their core marketing efforts.

Four actions can guide companies along that path.

Get the table stakes right. Again, to reap the benefits of differentiation on Elements of Value, a brand must deliver table stakes elements. The requirements differ according to the product category. For example, it could mean “sensory appeal” in carbonated soft drinks or “quality” in body lotions. Also, depending on a brand’s value proposition, it could also mean delivering on more functional elements such as “reduces cost” or “reduces risk” before “inclusive” or “humane.”

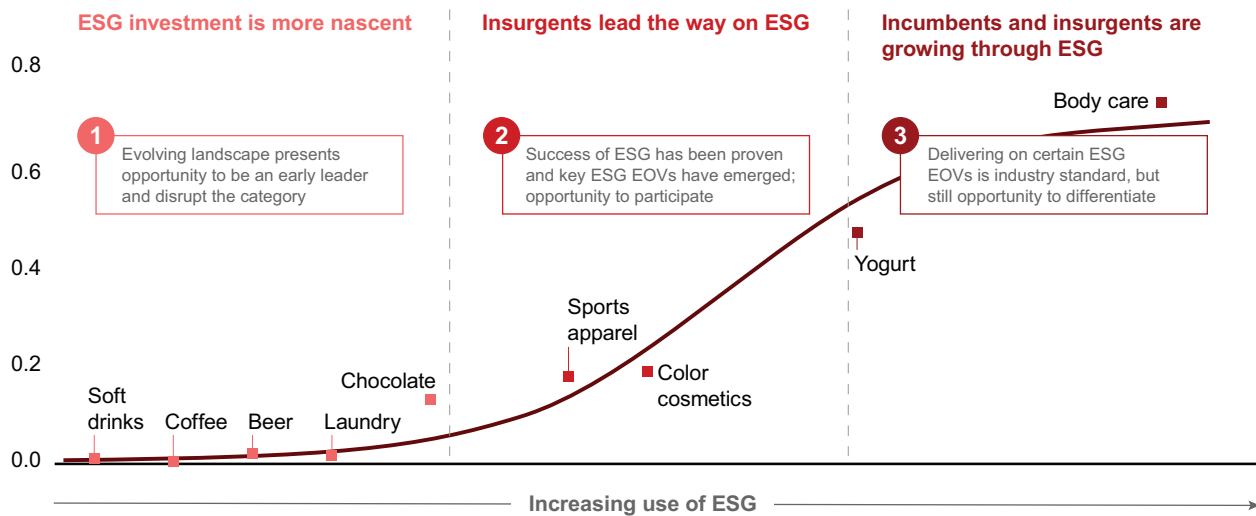
Find the right opportunities for differentiation. After understanding and delivering the table stakes elements, brands can determine how to differentiate their products from the competition across ESG and other elements.

The level of competition in higher-order Elements of Value differs by categories and geographies, and the opportunity to differentiate depends on the degree of sustainability already embedded in brands in the category and market (see Figure 2). While Dove paved the way in body care, it wasn't long before competitors joined in with inclusivity-focused messaging. As a result, body care is considered an advanced category as far as purpose is concerned. The same is true for yogurt. By comparison, beer, soft drinks, and chocolates are nascent categories for embedding higher-order elements. As such, they offer opportunities for brands to become an early leader and disrupt the category.

Unlock growth through actions and messaging targeted to specific consumer segments. Different consumer segments perceive different values from the same brands. The shift toward digital media that has drastically altered the brand marketer role—and provided access to the proliferation of valuable consumer data—has opened vast growth opportunities for companies to dial up different elements of the brand with different segments.

Figure 2: There's a high correlation between ESG and growth; nascent categories offer more opportunity to differentiate

Relationship between delivery of ESG-related Elements of Value® and revenue AAGR, by status of ESG delivery in subcategory

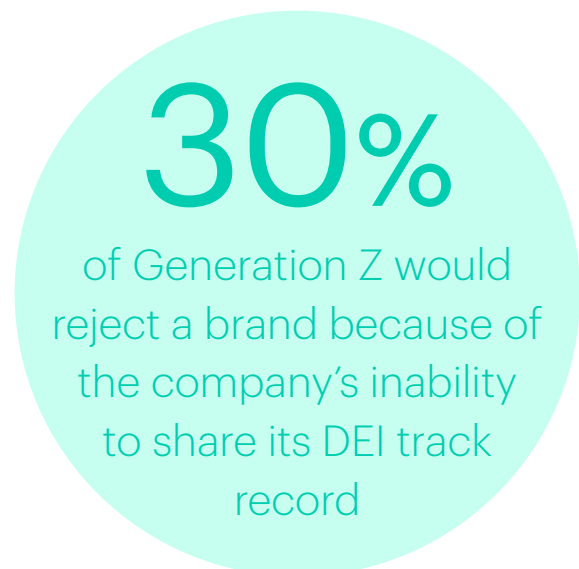


Notes: Numbers in the left column represent the correlation (R²) between ESG use and revenue growth; <0.1 is considered weak, 0.1–0.3 as good/moderate, and > 0.3 as strong; data comes from China, Germany, the US, and Mexico; average annual growth rate (AAGR) for revenue averages growth across years; Elements of Value® is a registered trademark of Bain & Company, Inc.
Source: Bain Global Elements of Value in CP Survey, November 2022 (n=178,000)

Many insurgent brands are already successfully unlocking value for specific consumer segments through actions and messaging. For example, instead of relying on a mass message to all consumer segments, insurgent soft drink brand Zevia has identified specific segments that would respond most favorably to its messaging and targeted its efforts to those groups. As a result, it outperforms with “health-minded” consumers compared with many incumbent brands, which continue to take a broad-brush approach to marketing.

For insurgents, the task now is reaching more mass consumer segments while not losing their insurgent differentiation by diluting the brand for the masses. On the other hand, incumbents need to strike a different balance by tailoring messaging for growth segments while being conscious not to stretch the brand too far across multiple segments. But for insurgents and incumbents alike, the purpose-related brand strategy cannot be just about communications and messaging. Without actions behind it, consumers will respond negatively by rejecting the brand. For example, our study of 4,000 US consumers found that 35% of baby boomers (over age 60) would avoid a brand purchase because of the brand’s negative treatment of employees, and 30% of Generation Z would reject a brand because of the company’s inability to share its DEI track record.

Experiment at scale. In a hyperfragmented and competitive consumer environment, experimentation is the key to building out and activating a purpose-focused brand strategy (see the Bain Brief “Can Marketing Experimentation Become Your Superpower?”). Experimentation enables brands to determine the dimensions that speak to their consumers—whether they’re more concerned with water issues or social equity, for example. Brands can use experimentation to systematically narrow down alternatives, including sustainability actions (e.g., engaging in partnerships with nonprofits vs. producing more environmentally friendly products or packaging), core messages (e.g., educational vs. inspirational vs. call to action), wording, and photographs. The answer will dictate the right messaging and creative



resources for the right audience. By measuring brand and sales uplift, experimentation also allows companies to understand observed (vs. stated) consumer behavior, providing data to determine the value of investing in ESG marketing to propel brand growth.

A food company used experimentation to reboot the growth of its core product, an alternative spread that was widely perceived as unnatural and unhealthy. The company relaunched its brand as 100% plant-based, positioning it as being better for both health and the environment than other dairy substitutes. The company also switched from palm oil to other plant-based alternatives, redesigned packaging to be more environmentally friendly, and focused investment on delivering differential value to consumers based on two Elements of Value: “Cares for Earth” and “Health and wellness.” It also invested to create a community of engaged proponents of plant-based food.

As part of the effort, the company experimented to find the highest-impact sustainability audiences, brand elements, and themes. In Experiment 1, it used existing creative to identify different audiences and establish a realistic baseline. In Experiment 2, the company developed and tested different creatives with modernized brand elements. And in Experiment 3, it tested winning creatives from Experiment 2 in different channels. Each variable built on the prior experiments to hone the campaigns before scaling them. The experimentation set the stage for a dramatic reversal in performance. The company turned a -3% to -6% net sales contraction into 3% sales growth.

Yet, as our refinement of the Elements of Value suggests, consumer tastes and needs continually change, and companies need to be prepared to shift their strategy as those changes occur—and do it before the competition. Early movers on higher-order Elements of Value can outperform, according to our research, but brands must continue to differentiate to sustain their growth.

To see how companies successfully keep raising the bar, consider the thoughtful moves taken by Lululemon. The apparel retailer originally was known for its exclusive, well-designed, and highly functional clothing, but has evolved to focus on inclusivity (its sizes now range up to 20), affiliation and belonging (the retailer offers online and in-store fitness classes), and motivation (inspirational messaging on shopping bags and in-store décor). This strategy of continually upping its game has helped Lululemon capture market share from its US competitors. From 2016 to 2021, the company increased its share of the sports apparel market by 1.5 percentage points at those competitors' expense.

So, brands with a clear view on delivering a differentiated higher-purpose consumer value can unlock substantial growth and disrupt an entire category. This growth, in turn, can fund a company's sustainability agenda, creating a virtuous cycle for a broader sustainability transformation. Yet brands can't keep still. They'll need to continuously experiment with ways to stay in lockstep with what consumers value. And they'll need to do it before competitors catch up.



Levers of Change: Technology, Behavior, Policy

Lower Costs, Faster Adoption: Closing the Sustainable Innovation Gap

How leading companies produce green solutions at the lowest cost possible to propel adoption and build competitive advantage.

By Piet de Paepe, Jelle Dhaen, and Jenny Lundqvist

In most industries, leadership positions have been stagnant for decades, with around 80% of profits typically captured by one or two players. Companies make incremental moves for incremental gains, but opportunities to leapfrog competitors or rewrite the future are few and far between.

The new focus on sustainability shatters that status quo. No matter their competitive position today, the moves that industrial B2B companies make in the next two to three years will determine their market position for the next decade and beyond.

Even so, green investments have become a source of strife in boardrooms around the world. Stakeholders are pushing to achieve sustainability commitments, but when organizations crunch the numbers, executives don't feel there's a solid business case. The investment in green solutions seems too large, too risky to pursue.

The issue is that most executives take a static view, considering today's cost structures and scale. They plan a cautious, follower approach that tracks market prices and expands volume as the market grows, making a fast, profitable transition nearly impossible.

Winners, on the other hand, produce green solutions at the lowest cost possible to propel adoption and build a competitive advantage. They understand that a substantial early investment and quick scaling are critical to success. They burn cash, yes. But these market-making incumbents also create a new profit pool where they are the leader. It's challenging, to be sure. But if they don't take the risk first, a nimble insurgent will.

The key is to understand where you are in terms of your experience in bringing down cost (the E-curve) and where your customers are in terms of adoption (the S-curve) (see *Figure 1*). Bridging those two curves would seem to pose a conundrum: You can't reduce your costs until you have a lot of customers, but you can't win a lot of customers until your costs come down. We can show you how to close that gap.

Here's our guide on how first movers can assess their specific locations on the E- and S-curves, close the gap, and back bold ideas with bold investments and execution, to guarantee the risk pays off.

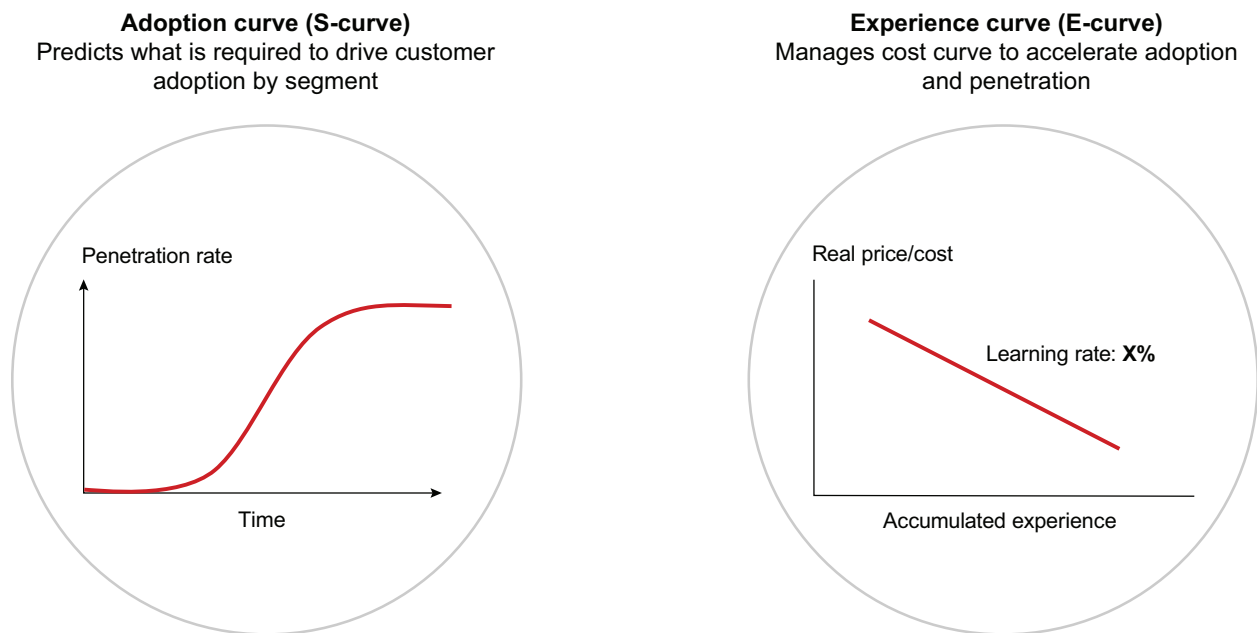
Two paths forward

Companies scaling a green solution typically fit one of two archetypes (see *Figure 2*). While either can be a path to market leadership, each requires a slightly different pace and approach.

Firms in the first archetype find that their green substitute is lower cost, at scale, than the incumbent product. There's high potential for first mover advantage—in fact, if you move too slowly or price too high, you could lose the business.

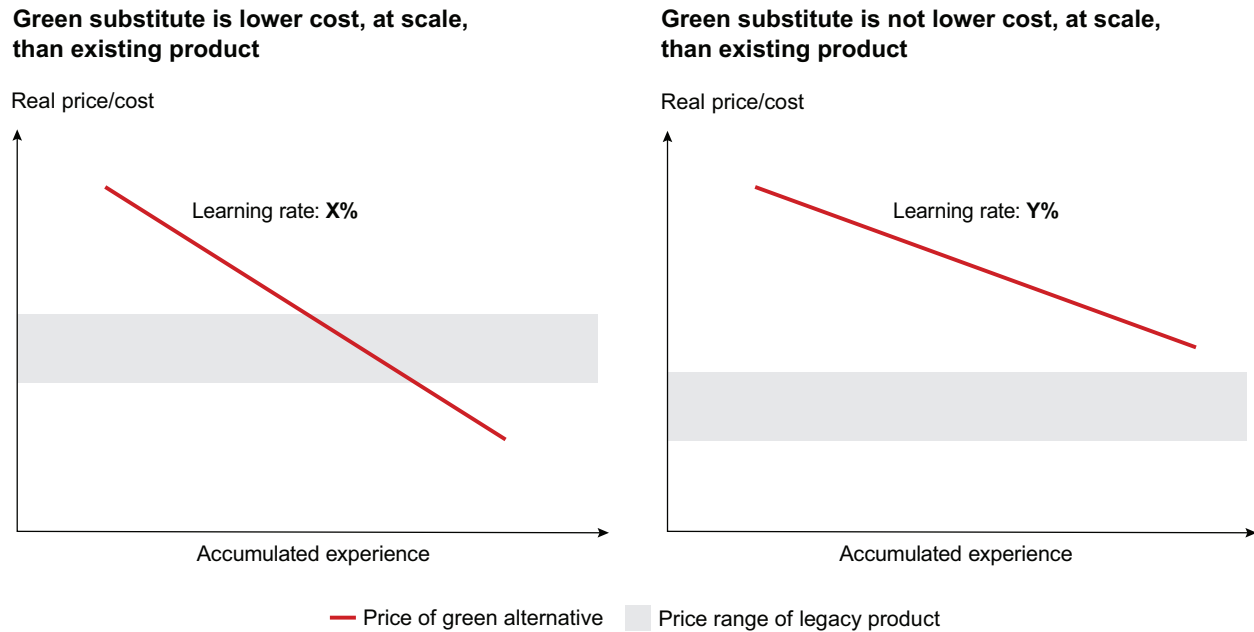
In this scenario, pioneers adopt preemptive pricing to move down the E-curve as fast as possible, accelerating customer adoption. Their green alternatives often have almost identical characteristics

Figure 1: Winners proactively manage the S- and E-curves to accelerate the green transition



Source: Bain & Company

Figure 2: There are two archetypal experience curves for green solutions



Source: Bain & Company

and performance to existing products. As B2B buyers usually make rational purchase decisions, offering trials of green substitutes to showcase similarities can help boost adoption. These first movers are quickly rewarded with scale and cost advantage, as well as potential subsidies as regulations change.

A green solution won't always be the lower-cost solution—but it's still worth pursuing, given the direction of most industries. Firms in the second archetype will have no choice but to turn to green substitutes as environmental, social, and governance (ESG) regulations, such as carbon taxation, increase their costs. In this case, leading companies focus on a more value-based pricing strategy, targeting those willing to pay more for green alternatives first. These companies understand that moving too fast could hurt their current business, so they take a slower approach to investing in and scaling the new business, often focusing on just one product or a select segment of the product portfolio. As a result, companies in the second archetype capture a more moderate first-mover advantage.

The E- and S-curve interlock

To determine the right pace and level of investment, winning companies tear down the organizational silos that have historically separated commercial teams from operational and procurement teams. They connect the E- and S-curves in four steps.

Step 1: Green solution innovation

Companies can start by brainstorming potential green substitutes for their current product portfolio. Leaders can prioritize the options based on the greatest potential to scale, the biggest impact in achieving sustainability goals, and the level of disruption to current operations.

Questions to get started:

- What are the potential green substitutes—for today and for a decarbonized world?
- Which have the greatest potential to scale? Which will best help us achieve our sustainability goals?
- How much would each green substitute disrupt our current operations?
- Which should we prioritize for our assessment?

Step 2: E-curve analysis

Future market leaders will develop E-curves for existing solutions, based on historical industry pricing, relevant costs, and expected future moves from scale and regulation. They do the same for potential green substitutes, considering their technology capabilities and anticipated future scale and experience. With these E-curves, companies can pinpoint if, and when, their green substitute will become cheaper than the incumbent solution.

Questions to get started:

- What does the E-curve look like for our selected green substitute? What is our level of technological readiness? How are decarbonization regulations and taxes affecting the E-curve?
- Which industry players, if any, are already transitioning?
- Which archetype does our green substitute most closely fit?
- Can we bring down costs with operational performance improvements or product innovation?

Step 3: S-curve analysis

Following an assessment of current green substitute adoption by end-market, leading companies determine which customer segments are primed for green solution adoption based on:

- the customer's benefit from avoiding carbon cost;
- the importance of sustainability commitments to investors and stakeholders;
- the value to the end consumer;

- forecasted supply-demand dynamics; and
- potential changes to the regulatory environment and investor commitments.

When determining the expected adoption curve, these companies first focus on customer segments that stand to benefit most—and are willing to pay. They also forecast and monitor adoption across different segments over time.

Questions to get started:

- Where are our customers on the S-curve? What is the level of penetration for green substitutes?
- What are the relevant customer segments? Which customers benefit most from a green solution?
- How does this differ by region or application? What are the effects of regulation, like taxation or subsidies?
- What are the greatest barriers to adoption?

Step 4: Value creation plan

Armed with a clear understanding of where they stand on the E- and S-curves and what they need to do to bridge the gap, leading companies then develop a dynamic strategy that delineates short-, medium-, and long-term actions. They identify no-regret moves (such as partnerships), big bets (such as scale acquisitions), and signposts (such as regulatory changes); map resource allocation and investment over time; and dedicate a team to evaluating performance outside of the strategic planning cycle.

Questions to get started:

- What is the roadmap to becoming a market maker? Do we need preemptive pricing?
- What no-regret moves can we take now? What big bets should we consider?
- What are the signposts to monitor and adjust our strategy over time?
- What are the financial implications for capex and resource allocation? What are the financial incentives?
- How can we evaluate our performance and follow through on the transformation?



Levers of Change: Technology, Behavior, Policy

The Future Is Circular: How Companies Can Prepare to Grow in a Changing World

By decoupling economic growth from resource consumption, circular models offer companies their best shot at continued, long-term growth.

By Tessa Byson, Jenny Davis-Peccoud, Joshua Hinkel, Hernan Saenz, and Yelena Ageyeva-Furman

At a Glance

- ▶ By 2030, executives expect the share of revenue from circular products and services to have grown 30% from 2021 levels, according to Bain research.
- ▶ Most of the large companies we studied have made specific, measurable circularity commitments, but few are rethinking their full business model.
- ▶ Doing so requires envisioning what the future will look like—including, critically, how profits will be made.
- ▶ Taking five specific actions today, CEOs can accelerate their plans for a more efficient, resilient, and profitable circular future.

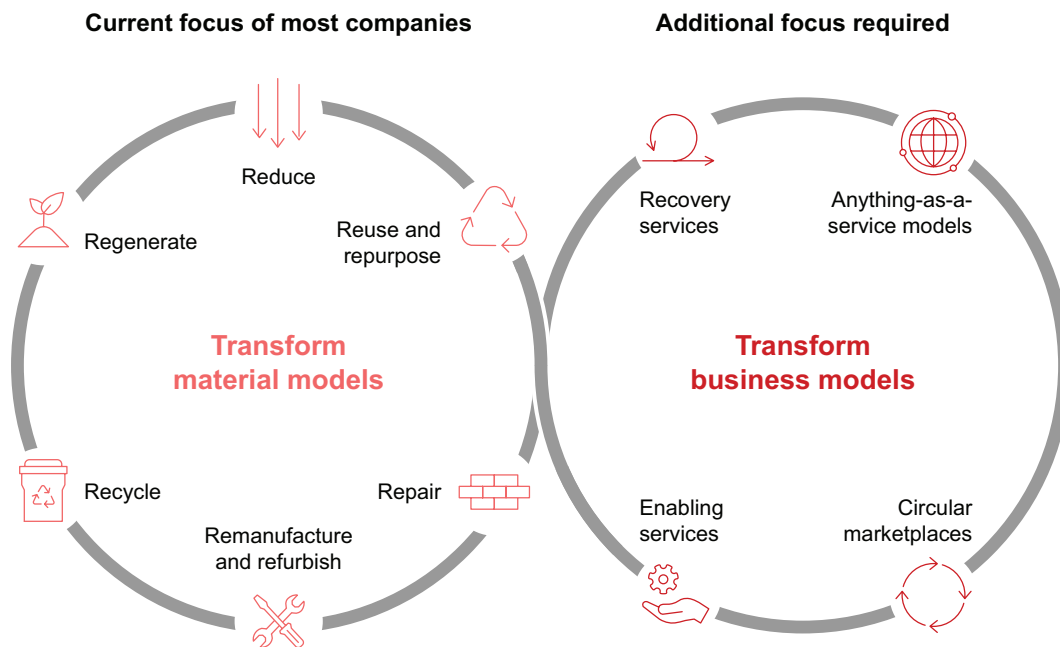
The Visionary CEO's Guide to Sustainability

To thrive long term in a world in which humans annually consume 1.75 times the natural resources the earth can regenerate in 12 months, businesses must decouple growth from resource extraction. In addition to improving environmental sustainability, circularity offers companies in most industries a way to gain competitive advantage at significant scale and thrive in a future in which profits will be made differently.

Circular practices like recovering resources, extending the life of products, and promoting a sharing economy offer valuable benefits, including greater business resilience, more efficient use of resources, and revenue growth from new customers, services, and innovation. Many business leaders recognize this. In a survey conducted by Bain & Company and the World Economic Forum in October 2022, 35% of executives ranked circularity as one of their organization's highest priorities, the third highest tally after "optimize supply chain performance" and "operate sustainably." And in a Bain survey, executives reported that they anticipate 30% growth in share of revenue from circularity between 2021 and 2030.

Even so, most organizations operate today with a business model built for a linear world. These models won't thrive in a circular economy. To unlock circularity's true value, executives must transform two things: their material model—how they source and use resources—and their business model—how they generate revenue and profits (see Figure 1).

Figure 1: To build sustainability and long-term economic value, companies must simultaneously redesign the way they use materials and how they construct their business model



Source: Bain & Company

Insurgents like Back Market, a refurbished device marketplace, and the luxury reseller The RealReal are already doing that—disrupting industries with new ways of operating and earning revenue. Bain research has found that 45% of executives expect these types of new entrants to change their industry, and concern about the threat from insurgents is highest among those incumbent companies that have done the most planning for the circular transition.

Of 380 large global companies studied in 10 industries, 55% have made specific, measurable circularity commitments, according to Bain research. But few have rethought their business model.

Incumbents are acting, too. Of 380 large global companies studied in 10 different industries, 55% have made specific, measurable circularity commitments, according to Bain research. These often focus on recycled inputs and waste reduction. Few have begun to really rethink their full business model, however, and that's where much of circularity's potential payoff often lies.

Companies can begin to comprehensively build for a circular world by taking two important steps:

1. Define the circular ambition

From today's linear ways of operating, circularity looks very costly. And the value it will add is often underestimated. To overcome that, companies must envision what the future will look like: where money will be spent, how profits will be earned, and which types of companies will earn them. This includes imagining how circular transformations will reshape interaction with customers, suppliers, and the broader ecosystem, and also how circularity models can help tackle pressing operating issues like scarce and diminishing resources, supply chain disruptions, regulation, and increasing environmental damage.

For most companies, this transition is likely to evolve over the next decade, or potentially longer. Consider a trucking company that is in the midst of a multiyear redesign of its business for a profitable circular future. Triggered by three things—the technology breakthroughs that have fueled the growth of low-emitting electric and autonomous vehicles, usage-based business models, and the fight for recycled and scarce inputs—the company is planning for the possibility that, in the future, customers will buy access to trucking based on usage rather than owning their own trucks.

At the same time, the company is incorporating circularity into how it competes in today's marketplace, designing its trucks and components to be more modular and upgradable, and thereby longer lived. This also makes components easier to recover at the end of a vehicle's useful life for use in

remanufacturing. Because reuse extends component lifetime, it is one way to reduce Scope 3 emissions. Supporting sustainable, circular, cost-competitive inputs and boosting uptime also reduces emissions. And all these efforts reduce total operating expenses.

In this way, thinking about its circular ambition is helping this trucking company position itself to defend its business and navigate potential regulatory changes.

2. Plan future profits

As new business models change how companies earn revenue and the more efficient use of resources reduces costs, the way profits are made will evolve as well.

That's why it's important for every company to understand: 1) where and how it can make money in a circular world, 2) the stages at which its industry and market are likely to reach a level of adoption and maturity that justifies investment in that model, and 3) how that future should influence new products and services being created today.

Innovative technology, evolving regulations, consumer and customer demand, supply chain volatility, and material scarcity are among the factors that will influence those answers. They won't always be perfectly predictable, and executives may not know all the answers, but they can and should identify the signposts they need to watch out for, the signals that can indicate an acceleration in the shift to circularity, such as declining unit production costs or the development of supporting infrastructure.

Consider how the increasing scarcity of materials like lithium and rare earth metals needed for electric vehicle (EV) batteries will shift a portion of car industry profits toward companies collecting, sorting, and recycling EV batteries. While it's hard to predict exactly how this will play out, manufacturers with access to end-of-life batteries and recycling capabilities will have a strong strategic advantage in the future.

To understand where companies can make money, it's critical to understand how market structures will transition in the future and which segments of the value chain will have a disproportionate degree of influence on critical flows of needed resources. Recognizing that the level of influence and control in its industry will shift toward those participants who facilitate the reverse flow of used materials and products, a chemical company is developing a plastics recycling strategy to commercialize recycled materials and gain access to scarce feedstock of postconsumer packaging, including PET and recycled aluminum. This will be a key strategic advantage in the future when these materials become even more scarce.

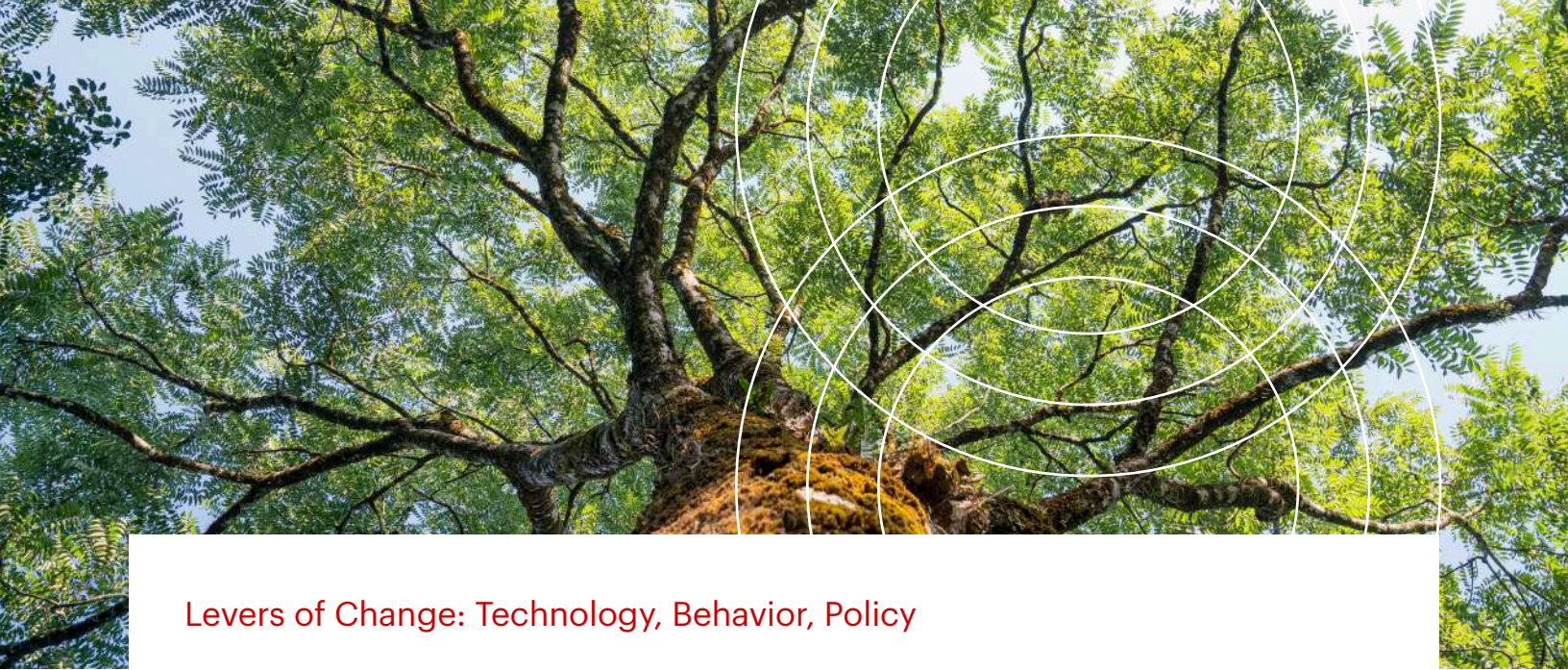
Once critical market transitions are identified, companies must develop strategies to access, shift, and influence them, both alone and through an ecosystem of partners and other participants.

Actions to take now

CEOs planning for a more efficient, resilient, and profitable circular future benefit from taking certain actions now:

- Identify strategic opportunities for which circularity can create and accelerate value: new customers, new sources of revenue and monetization models, supply chain resilience, sustainability, and access to scarce supply, among others.
- Determine how circularity is likely to evolve in your industry (adoption curves), the signals or signposts to watch for signs of increased momentum in customer adoption, and how production cost will come down over time (experience curves).
- Define the material and business models that will help position the company for maximum competitive advantage.
- Anticipate transitioning of market structures and resulting distribution of influence and control across the value chain and invest to influence and secure the flow of critical resources.
- Map out and start building the broader ecosystem partnerships required to scale your circular solutions.

The authors would like to warmly thank Simone Doms, a practice director in Bain's Sustainability & Responsibility practice in Munich, for her extensive contributions to this chapter.



Levers of Change: Technology, Behavior, Policy

Leading with Vision: Harnessing the Climate Policy Response

As global warming progresses, government intervention will grow bolder and a company's ability to understand and navigate policy uncertainty more critical.

By Katherine Dixon, Cate Hight, Yang Liu, and Grant Dougans

At a Glance

- ▶ The ability to influence policy—and, in turn, customer choices and supply chain dynamics—will be one of the differentiating corporate capabilities of the energy transition.
- ▶ Three policy scenarios illustrate how governments will reshape market dynamics over the coming decade.

As humanity—with a still-growing population and appetite for energy—tests the limits of our planetary boundaries, the pressure on governments to act is intensifying.

Progress has been made in the transition away from fossil fuels over the past two decades. Clean technologies are taking off across many parts of the global economy. Solar sets new records for deployment each year, with renewables projected by the International Energy Agency to account for 90% of new electricity generation capacity globally between 2022 and 2027. Electric vehicle sales reach new highs each year, and heat pumps are on an exponential growth curve in many markets. Meanwhile, climate commitments from countries and companies have proliferated, reinforcing the political consensus around achieving the Paris goals. Some 90% of global GDP is now covered by net-zero targets.

The policy imperative

Still, the world is a long way from a 1.5-degree future: Clean energy is growing, but so is fossil fuel consumption. To reach net zero by midcentury, it won't be enough just to keep adding to the supply of renewable energy. Achieving net zero requires the total transformation of the energy system that underpins our economies—including the transition of the 80% of energy demand that is not currently electrified.

But while we have seen how fast the transition can go when the interests of business and government align, economic incentives and the long-term interests of humanity in a stable climate are often in conflict. Publicly listed companies representing about one-third of the global economy have set or committed to science-based climate targets. Few will meet them, absent wider changes in the market environment.

Take, for example, a hypothetical large consumer goods retailer. It could meet its 2030 goals incrementally by adopting sustainable packaging, optimizing supply chains, and investing in energy-efficient processes. But, when the chief sustainability officer looks further out, the transition feels beyond the company's control; its ability to meet those climate commitments will depend on the availability of low-carbon freight services and manufacturing technologies, not to mention the building, heat, and power sectors.

For many companies, the path to net zero exists in theory but not in practice. Solutions to transition shipping, aviation, and steel are well understood. But deploying them at scale depends on bunkering infrastructure and low-carbon vessels, the scaling of hydrogen or synthetic fuel technologies, and the replacement or retrofitting of steel plants. In all of these cases, the transition will likely involve replacing economically efficient technologies with less efficient ones, making the business case all the harder for competitive industries in globally integrated markets.

We have a term for when economic incentives do not price in damaging outcomes for society, such as extreme climate change: It's called market failure. But despite the systemic nature of the transition challenge, the pressure at the enterprise level is intensifying. Many investor groups, consumers, and governments are demanding transparency, ambitious targets, and tangible actions toward carbon reduction. Those in the highest-emitting sectors, and particularly the energy sector, can feel this pressure most acutely. Executives from a variety of industries have begun to call for more government intervention.

Clean technologies only scale up when they make money. It is the generation of free cash flows that creates the potential for a virtuous circle of reinvestment. In contrast, managers that commit to driving the transition in opposition to commercial realities risk eroding company value. Pouring money into a low-carbon production capacity with no pathway to profitability is not a solid strategy for scaling low-carbon solutions.

Acknowledging market failure doesn't mean giving up. Society needs business leaders to take risks, drive innovation, and transform their industries. But in the case of climate, governments also need them to get much louder and more precise about what's necessary for individual sectors to accelerate the transition. The rewiring of our energy system will only be possible with more rapid scaling of clean technology adoption across both energy demand and supply sectors. All of that will require policy.

Upskilling on policy

As the physical, political, and economic impacts of global warming become more real, government intervention is likely to become bolder and more wide ranging. Done right, these actions will accelerate development and diffusion of clean-energy technologies across all sectors of the global economy—as, in some instances, the invisible hand of the market is being replaced by the strong arm of the state.

This inevitable policy response will play out in different ways in different places, shaped by the political systems and national interests of the major powers.

- In **China**, a strong state system will provide significant direct support for strategic national industries, incentivizing and enabling the rapid development and deployment of clean-energy technologies.
- Fiscal incentives from the world's lender of last resort—in the form of tax breaks for clean technologies and jobs—have created a magnetic pull for green capital toward **US** industries.
- **European** policy is also shifting. For two decades, the continent drove the decoupling of emissions from growth through regulation and pricing. But with the low-hanging fruit picked, no fiscal union, and fragmented politics, the continent faces tough choices—and the level playing field is giving way to increasing national state aid, challenging the integrity of the single market.

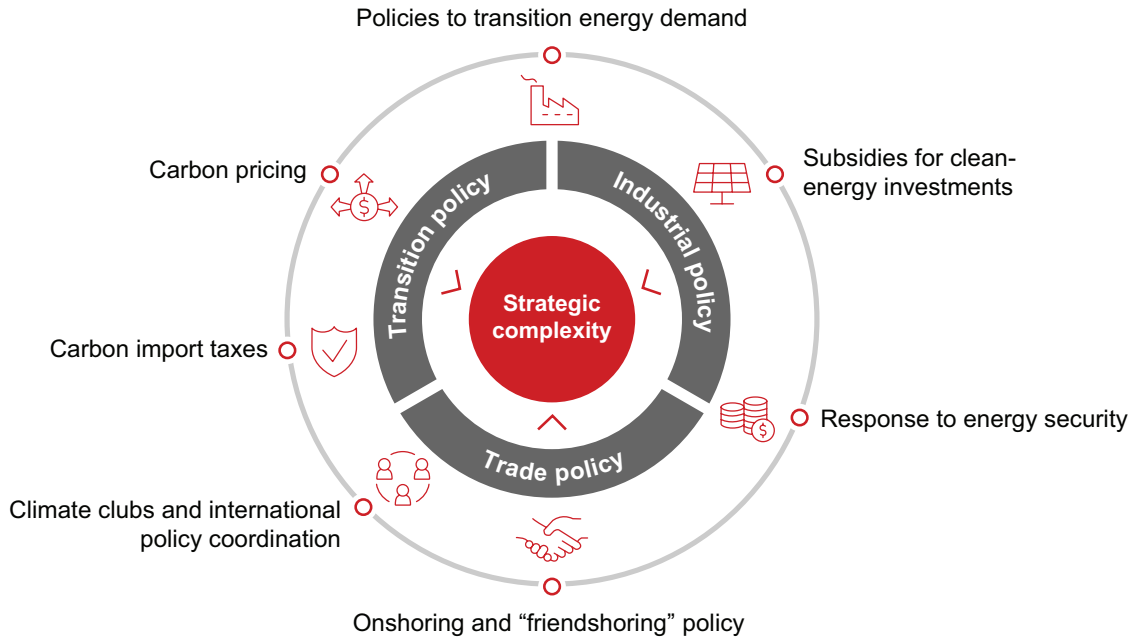
Against this backdrop, all companies will need to anticipate disruptive change. Transition policy—driven by climate but increasingly also by security and affordability—is becoming conflated with trade and industrial policy, as governments navigate a more complex foreign policy environment and race to capture technological advantage in a world with constrained resources and supply-side shocks (see *Figure 1*).

For companies, resisting progress is always a risky strategy. And when it comes to the energy system, the underlying dynamics of transition make change inevitable. Those able to stay ahead of the curve by enabling their customers and suppliers to overcome transition barriers will secure the greatest commercial advantage.

The ability to understand and navigate policy uncertainty will be differentiating. Policy-driven markets will bring exceptional margins for those with foresight, as other market participants fail to anticipate new sources of green demand. Policy will facilitate or impede global supply chains. And there will be stranded assets and capabilities when regulations outpace expectations.

There are five types of policies that corporations will need to engage on (see *Figure 2*).

Figure 1: Big policy uncertainties will shape investment and the energy transition



Source: Bain & Company

Figure 2: The policies transforming the energy system reflect the five ways governments can shape markets

Pricing

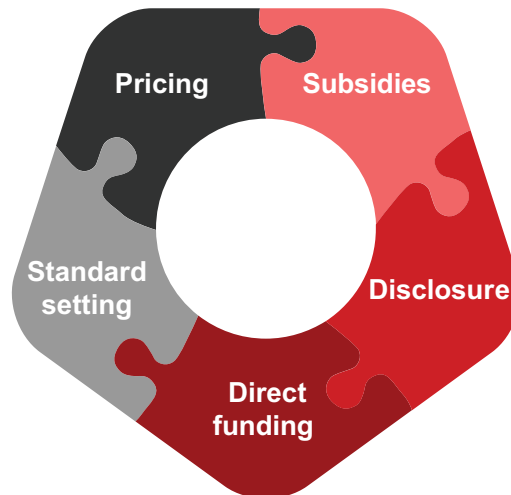
Measures that increase the cost of higher-carbon technologies

Example: **Carbon tax**

Standard setting

Measures that obligate the deployment of lower-carbon technologies or prevent the deployment of higher-carbon technologies

Example: **Fuel standards**



Subsidies

Measures that decrease the cost of lower-carbon technologies

Example: **Tax credits**

Disclosure

Measures to increase corporate accountability

Example: **TCFD (Task Force on Climate-Related Financial Disclosures)**

Direct funding

Direct government financing of low-carbon technology development, infrastructure, or skills

Example: **Direct investments in renewables**

Source: Bain & Company

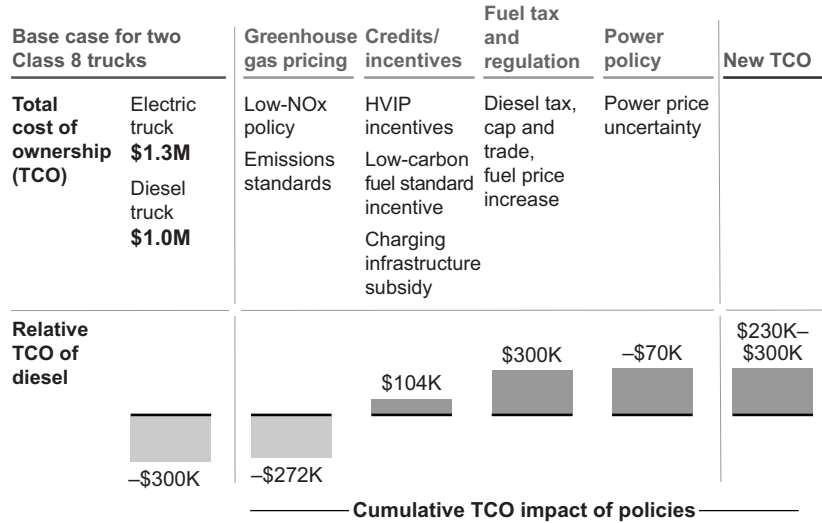
Three policy scenarios

In service of transition trade and industrial policy objectives, governments are already intervening in ways that will disrupt many sectors, as these three examples illustrate.

Electric trucks

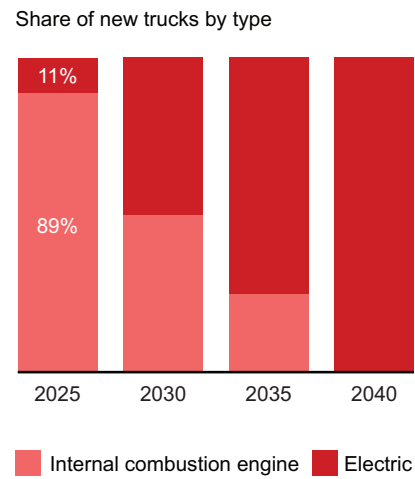
Transition policy can flip underlying cost dynamics ...

California 2025 electric truck policies



... but electric truck mandates would be game-changing

California clean fleets and clean trucks regulations

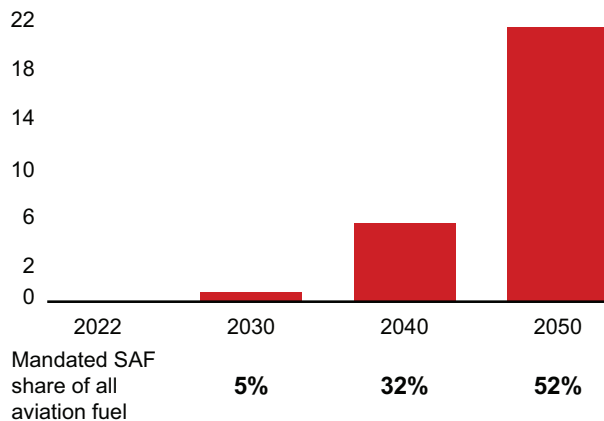


Notes: TCO includes vehicle cost, fuel cost, fuel economy, and infrastructure cost; HVIP is the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project
Sources: California Air Resources Board; ICF; NCST; RMI; California HVIP; Bain analysis

Aviation Fuel

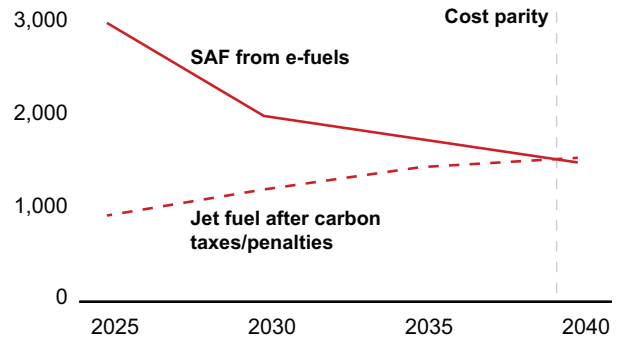
Current policy is expected to create guaranteed demand in the EU for sustainable aviation fuel (SAF) ...

EU SAF demand (Mtoe)



... bringing forward the point at which wider markets unlock

Levelized cost of SAF (€/tonne)

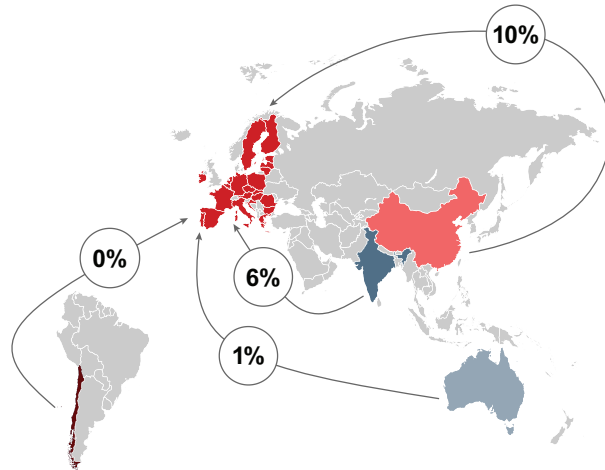


Note: Mtoe is million tonnes of oil equivalent
Sources: EU regulations; DNV; IRENA; IEA; World Energy; Eurostat; SkyNRG; EASA; Euractiv; Bain analysis

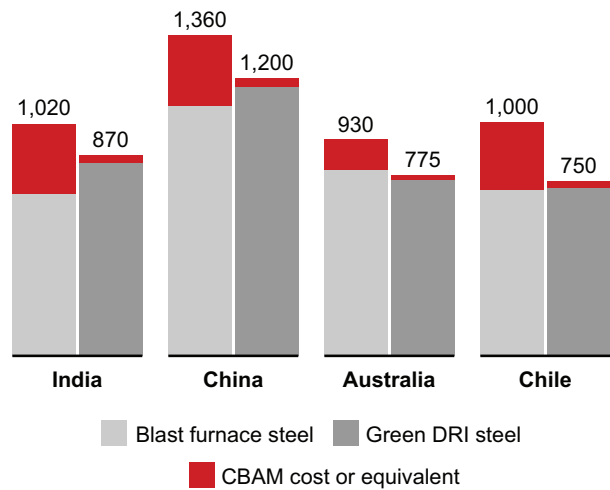
Green steel

The Carbon Border Adjustment Mechanism (CBAM) will make blast furnace-produced steel uncompetitive in the EU, creating new dynamics in the global steel industry

2023: Percentage of EU imports of blast furnace steel



2030: Estimated cost of exporting steel to EU, by production method (\$/ton, excluding shipping cost)



Notes: CBAM is a tariff on carbon-intensive products imported by the EU; costs include import tariff and export duty; for Australia, assumed domestic carbon price of \$75/ton; for other countries, CBAM cost of \$112/ton; DRI is direct reduced iron
Sources: IEA; European Steel Association; analyst reports; Bain analysis

Thriving in a world in which policy is decisive

All companies will need to navigate this transition. Those that lead will operate with vision, purpose, and pragmatism. Not only will they manage uncertainties, ensuring that their business strategy is credible under a range of policy scenarios, but they will harness the new opportunities presented by policy.

Those that truly thrive will not just react.

They will understand how policy is influencing the dynamics of innovation and technology to transform their industry.

They will anticipate how markets are being shaped, created, and destroyed by governments and invest in new, low-carbon business models and supply chains ahead of demand.

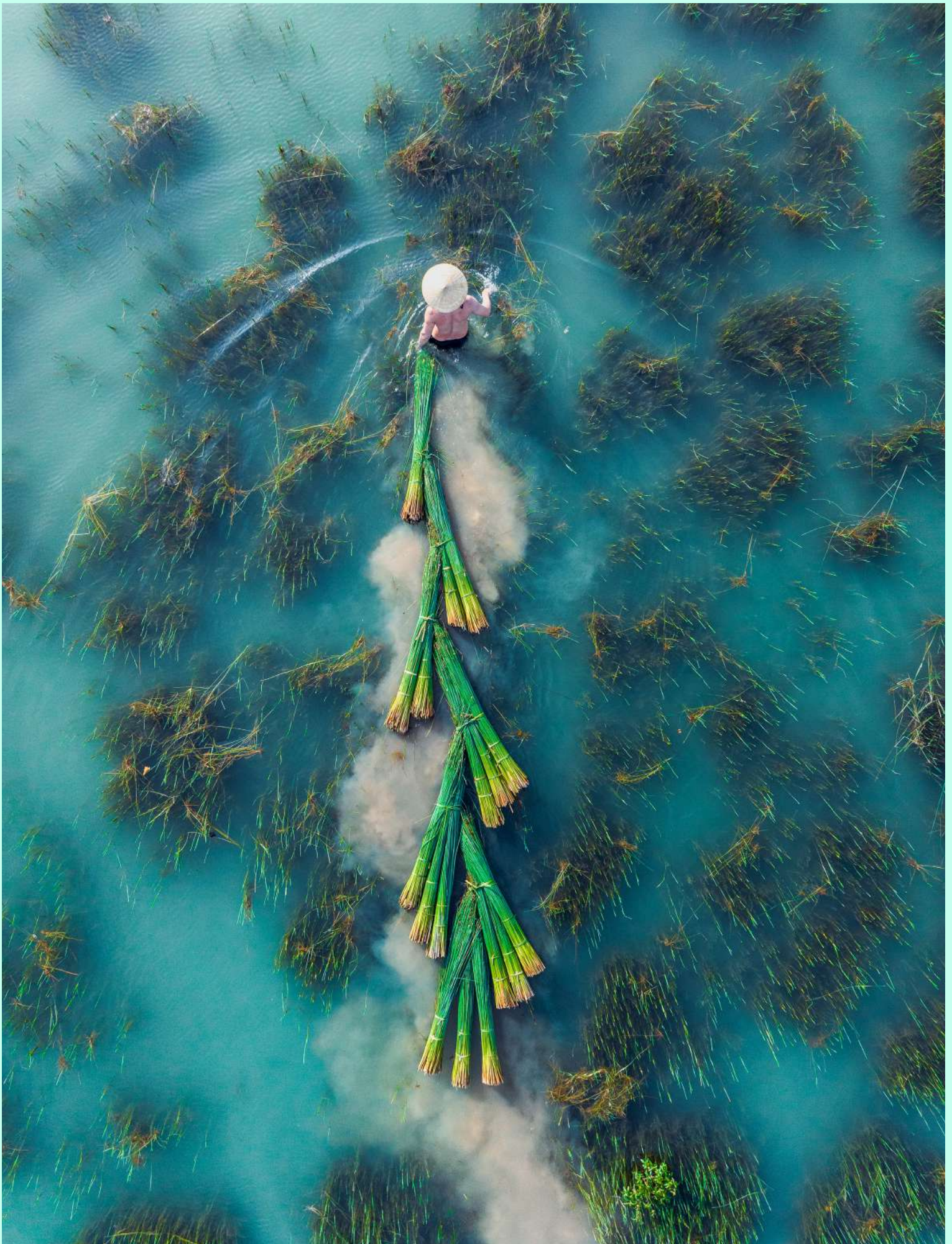
They will work with governments to leverage industrial strategy to overcome transition barriers as they invest in early-stage technology.

They will capture exceptional margins by getting ahead of policy-driven sources of demand, then enjoy a cost advantage as technology diffuses through global markets.

The Visionary CEO's Guide to Sustainability

And their corporate affairs teams will be deeply expert in the critical geographies and sectors in which future value is created, building alliances across value chains and influencing the rules of the game.

This ability to influence policy, and therefore customer choices and supply chain dynamics, will be one of the truly differentiating capabilities during the transition to a net-zero energy system. Because in a world in which policy is decisive, management teams that proactively shape their market environment's policy and stakeholder landscape will not only build stronger businesses that are better able to manage risks; they will also help push forward the changes our global economy requires.



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Sector Perspectives

Building Resilience in Your Business Strategy: Four Imperatives for Leaders

Traditional approaches to resilience don't rise to today's challenges.

By David Knipe, Dunigan O'Keeffe, Eric Beranger-Fenouillet, and Aadarsh Bajjal

At a Glance

- ▶ Traditional approaches to resilience focus on near-term risks, exposing companies to the threats of long-term challenges.
- ▶ These blind spots can leave executives overconfident about their companies' resilience, when most have yet to be tested.
- ▶ Leaders take a broad approach that includes strategic, operational, and supply chain resilience, in addition to managing the environmental risks to physical assets.

We hear a lot about the need for resilience these days, but this is actually nothing new. Businesses have long faced two types of disruption. The first is unpredictable but not unprecedented major events, things like Covid-19 or the Fukushima disaster. The second is known disruptions like climate change, which play out over long periods of time and bring with them additional uncertainties, such as how the world will achieve net zero, which technologies will win and lose, and which new businesses will grow and which will decline.

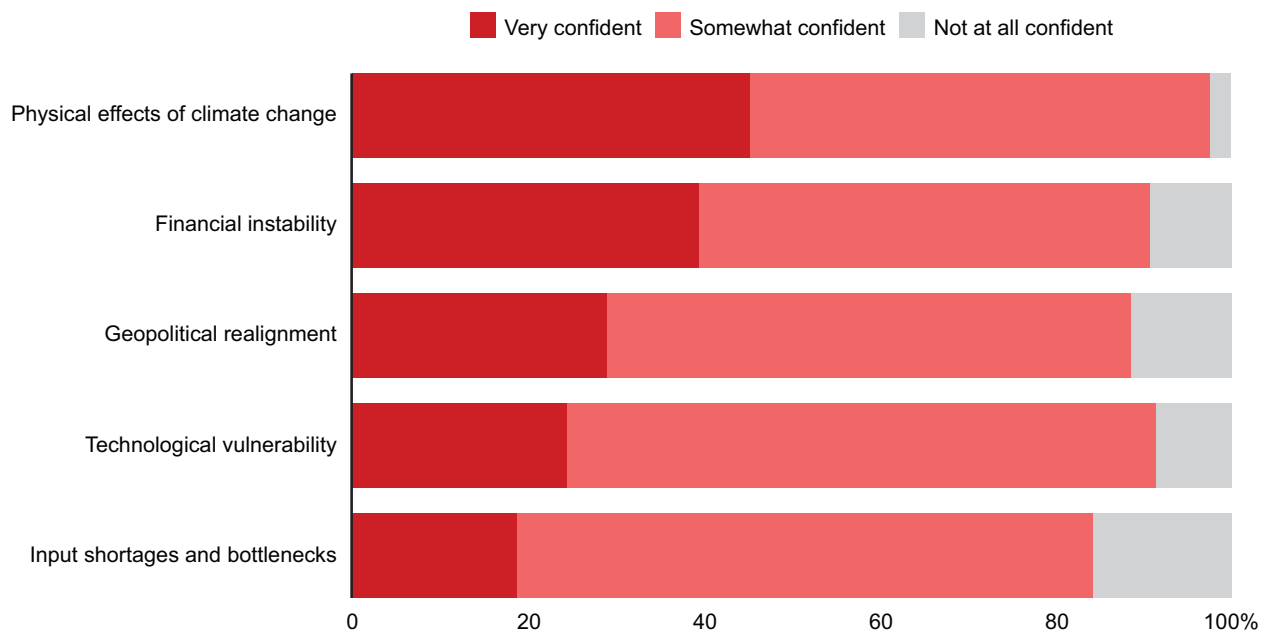
The Visionary CEO's Guide to Sustainability

Businesses must be resilient in the face of both sorts of disruption if they are to thrive amid uncertainty. Today, cultivating resilience should be top of mind for CEOs, executive teams, and boards as they lead through one of the most volatile and uncertain periods the world has seen for some time.

Resilience is likely to be one of the most critical strategic differentiators of any company's success moving forward. But traditional corporate approaches to resilience don't rise to today's challenges. They focus too much on near-term risks, without fully recognizing the potential impacts up and down the value chain, well beyond individual company boundaries. They usually make very limited use of advanced predictive tools, which could help identify some of those risks. And they fail to connect risks to the organization's long-term strategic goals and economic model.

These narrow approaches can leave blind spots and create a false sense of security. Bain recently asked executives in the energy and natural resource sector about their confidence in navigating five types of threats, spanning from the physical effects of climate change through to technological vulnerabilities, input shortages, and bottlenecks (see Figure 1). Confidence across the board appears surprisingly high, especially as many of these threats continue to escalate.

Figure 1: Nearly all executives said they were very or somewhat confident in their ability to manage the physical effects of climate change



Source: Bain ENR Transition Survey 2023 (n=608)

These high numbers could reflect an overconfidence that's not entirely justified by the limited investments most firms are making in resilience. People often fail to accurately assess the magnitude and likelihood of rare events, such as the physical effects of climate change, since most have not experienced them firsthand.

Leading companies take a comprehensive approach that includes strategic, operational, and supply chain resilience, in addition to managing the environmental risks to physical assets.

Strategic resilience

All strategy is formed amid some level of uncertainty, potentially handicapping a firm in several ways. Overconfidence can lead to corporate myopia; under-confidence can leave firms in paralysis. Either scenario can stall action until it's too late to prevent a bad outcome.

“Existing assets are vulnerable to the instabilities ultimately caused by climate change and shortage of resources.”

Vice president, new energy company, Europe

It's rare that the losers in a transforming industry are really blindsided by change. More often, they fail to set a strategic direction that can adapt to shifting conditions. Leading firms start with a view of the future: What will customers need 30 years out? This approach can help companies set a long-term vision, free from the constraints of current practices and portfolios. Successful teams then plan for their long-term reference case, while continuously monitoring the environment and correcting course as necessary along the way.

Even among companies that invest in long-term scenario planning, few consider the “corner scenarios”—events that are possible but much less likely, like unexpected policy shocks or losing access to capital markets. Planners often shelve these scenarios because they don't want to invest time developing detailed plans for conditions that are unlikely to occur.

But ignoring high-risk scenarios is, increasingly, a shortsighted strategy. Stress testing a company's capabilities has never been more essential, and it's one of the ways that planners can locate the extreme corners, in order to understand the implications and potential opportunities of low-probability, high-risk scenarios.

Operational resilience

Reducing Scope 1 and 2 emissions helps ensure long-term commercial viability in several ways. First, it positions a company to be closer to compliance as regulations or carbon taxes increase. Closely related, it helps preserve an asset's social license to operate, making it less susceptible to being targeted as a significant carbon emitter. It can also extend the working life span of the asset, given updates that renew operational capability. Reducing emissions signals all of these benefits to investors who are considering the long-term viability of businesses, especially in rapidly changing sectors.

In addition to ensuring resilience for operations, companies also have to ensure that their decarbonization programs are resilient and can adapt to changing conditions. In this context, resilience means the ability to persevere not only through extreme weather events but also economic downturns, changes in technology, and other unpredictable barriers. Some companies are moving quickly to gain front-runner status while others are taking a wait-and-see approach, aiming to take advantage of more efficient technologies and economies of scale.

“User needs are changing, and this needs to be taken into consideration during innovation. ESG is a clear user need, so it has to be embedded in strategy while driving innovation and customer acquisition. In terms of funding, this is also becoming a must.”

CEO, manufacturing company, Turkey

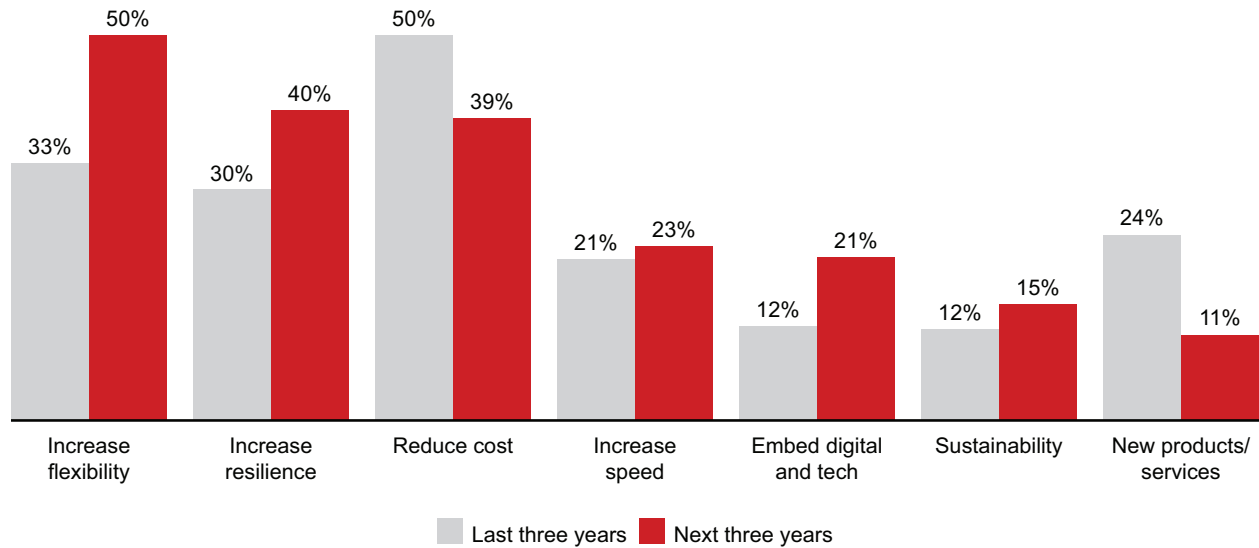
Supply chain resilience

Once the purview of the COO and purchasing functions, supply chain resilience has risen to the highest levels of the corporate agenda over the past few years. The pandemic, a semiconductor shortage, and war in Ukraine are among the crises that have exposed vulnerable supply chains. Quality and price are still table stakes, but increasingly supply chain executives are investing to improve flexibility and resilience (see *Figure 2*).

Supply chain resilience means different things in different sectors, but in general it's the ability to proactively minimize risk, absorb inevitable shocks, and quickly recover from setbacks to lessen the impact on operations. Taking a holistic view of the entire chain can help companies identify the

Figure 2: Flexibility and resilience are becoming more important to supply chain executives

**Supply chain investment goals, last three years vs. next three years
(percentage of respondents who selected each goal as a top-three primary objective)**



Source: Bain Supply Chain Industry Resilience Survey, September 2022 (n=275)

most important risks to the business and then assess the likelihood of each. Comparing strengths to competitors’ can help companies find opportunities to differentiate while mitigating their impacts on the environment.

Physical resilience

Many companies are already experiencing the effects of climate change on their operations. For example, in 2022, Apple and Intel suffered a weeklong shutdown of some production facilities in Sichuan, China, where a drought stalled multiple hydropower plants. But many businesses underestimate the likelihood of physical climate risk events and their exposure to them, relying on a narrow set of risk-transfer tools (for example, insurance or financial hedges) rather than a broader set of strategic and operational levers for building resilience.

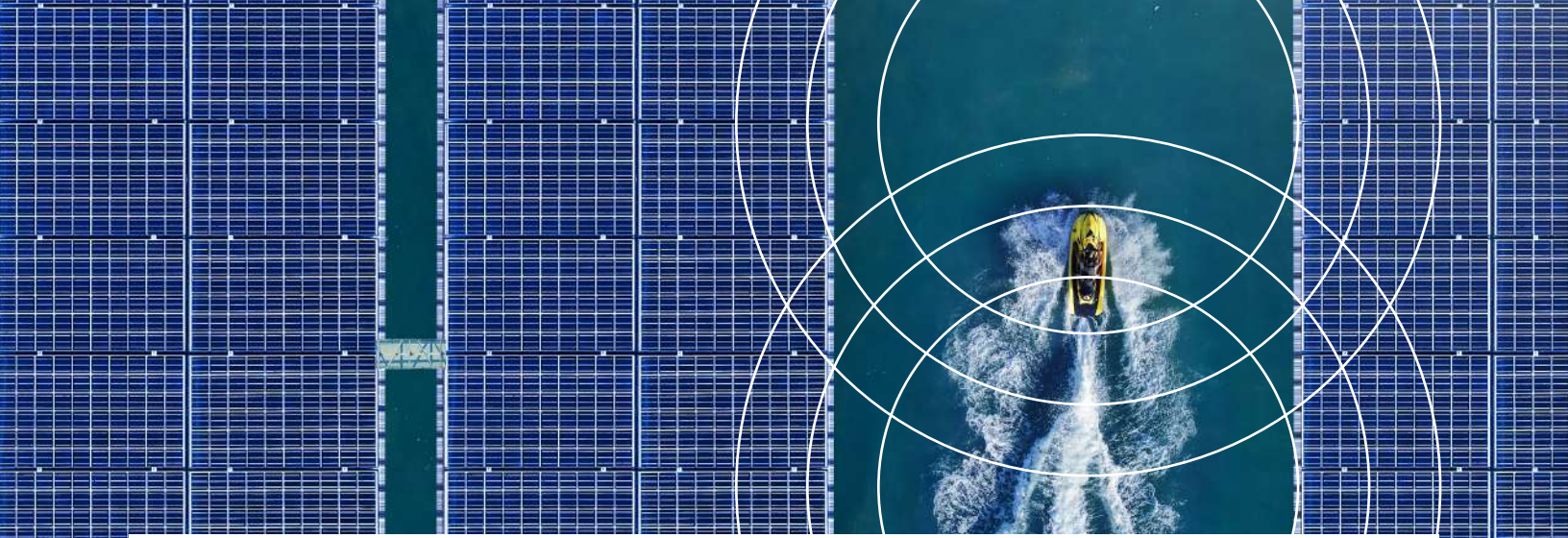
Power utility Southern California Edison, for example, has been working for more than a decade to manage the effects of climate change on its power grid and generation assets, which include more frequent wildfires and droughts that jeopardize the viability of hydroelectric power. To address these risks, SCE embarked on a detailed assessment of climate risks to its assets, operations, and services across its 50,000-square-mile service area. The results helped SCE reprioritize capital

investments for new infrastructure that can withstand more intense flooding and storms, extreme temperatures, and more severe wildfires. SCE says it invests about \$5 billion each year to maintain and improve its grid, and that by the end of 2021 it had reduced wildfire risk by about 70% compared with pre-2018 expectations.

“The human being only reacts when the problem is at the door and he has no other choice. The giant threat of climate change is not so tangible, because it occurs slowly, over long periods of time.”

Global head of sustainability, digital finance company, Spain

A more proactive approach to resilience starts with a systemic look across the entire value chain, using analytical tools to estimate risks today and in the future. Companies can then focus on practical actions to adapt to these risks and make decisions about which assets or facilities to protect and what strategic changes may be necessary to survive and thrive. The changes may include revising capital planning processes, restructuring or nearshoring the supply chain, or advocating for new policy solutions.



Sector Perspectives

The Energy Transition's Other Big Puzzle: Making the Math Work

Strong investment returns are within reach for companies that focus on the fundamentals and aren't afraid to get creative.

By Grant Dougans, Anders Bruhn, Dalton Maine, Valeria Sterpos, Francesco Cigala, and Shazrul Asari

At a Glance

- ▶ The energy transition would generate at least \$55 billion in new earnings each year if the world approached the annual investment level required for net zero.
- ▶ Unlocking the trillions of capital dollars available remains difficult; many companies struggle to chart clear pathways to investment returns on their low-carbon projects.
- ▶ Leading companies are using policy, commercial capabilities, creative financing, cost discipline, and other strategies to make the math work for their low-carbon investments.

Delivering on the energy transition's ambitions comes down to economics: How can the world make the \$4.6 trillion annual investment required for net zero pencil out?

As investors and other stakeholders form global coalitions such as the Glasgow Financial Alliance for Net Zero (GFANZ), there's no question that there are trillions of capital investment dollars worldwide looking for a home in low-carbon energy systems. Capital seeks returns. If low-carbon capital investments approached the annual \$4.6 trillion that the International Energy Agency (IEA) estimates

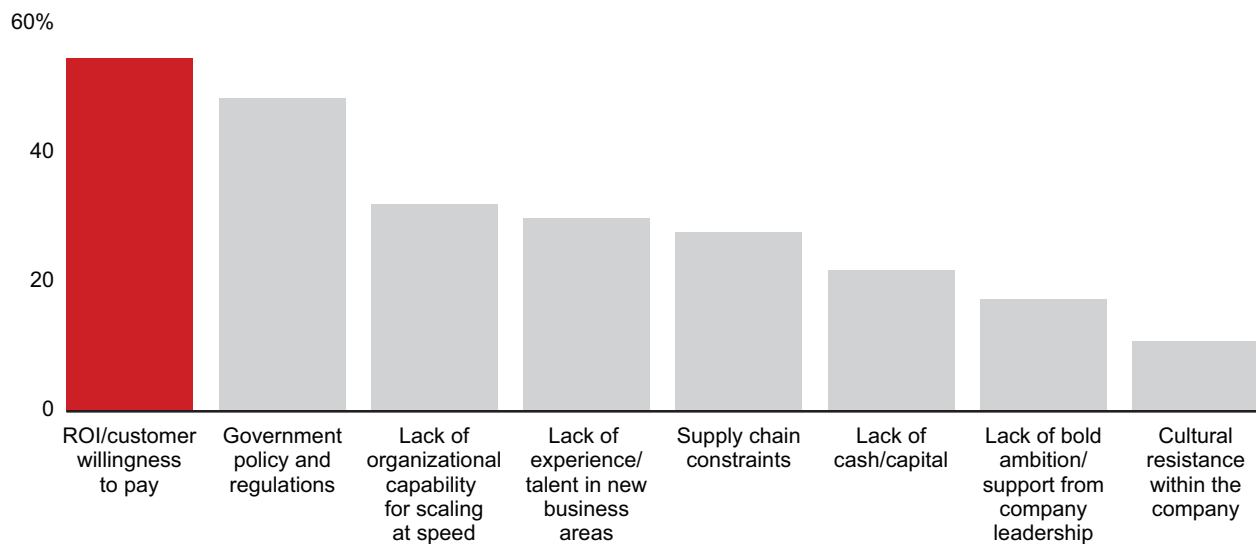
is required by 2030 to achieve net-zero carbon emissions by 2050, the energy transition would generate a new \$55 billion earnings pool each year—a low-end estimate if one assumes an average 20% equity weighting for projects and a 6% return on that equity. That's the generational upside that so many companies are pursuing around the world as they work to scale up their new energy-related businesses.

Despite the opportunity, less than \$2 trillion per year is being deployed into clean energy worldwide across the private and public sectors, according to IEA data. In Bain's 2023 survey of more than 600 energy and natural resource (ENR) executives, respondents confirmed that they expect to allocate only about 25% of total capital to new low-carbon growth areas. This is largely unchanged from last year's survey and consistent with the capital allocation data sourced through Bain's analysis of 125 of the top energy and natural resource companies by market capitalization in each sector. What's more, according to that same data, almost half of the enormous cash windfall those companies received over the last two years was returned to shareholders rather than reinvested into new low-carbon projects.

What's going on? Although the challenges are multifaceted and complex, ENR executives said in our 2023 survey that the most formidable constraint on scaling up low-carbon systems isn't access to capital or even supply chain challenges—it's securing sufficient returns on investment and customer willingness to pay higher prices to cover that capital, once deployed (see Figure 1). Put another way,

Figure 1: Executives say the greatest obstacles to scaling low-carbon businesses are customers' unwillingness to pay higher prices and the difficulty of ensuring adequate returns on investment

Share of executives who consider each factor to be a very significant roadblock to scaling their low-carbon growth businesses



Source: Bain ENR Transition Survey 2023 (n=608)

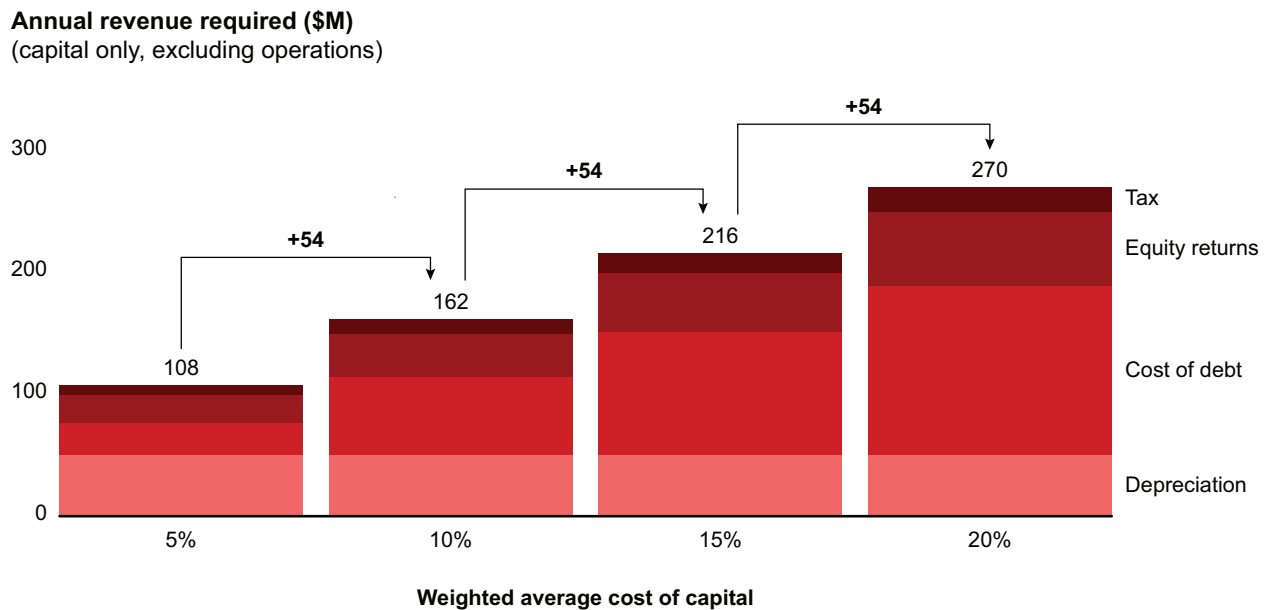
most companies have ample access to capital markets. It's customer revenue they're hunting in order to grow these businesses by an order of magnitude in coming years. Until that problem is solved, the \$4.6 trillion global investment goal will remain out of reach.

Understanding the math of capital formation

The energy and natural resource industries are exceptionally capital intensive, as their executives and investors know all too well. For many low-carbon projects, the largest input cost is capital. Put simply, for any project to be built, capital providers must first ask and answer the questions, "who will pay? for how long?" and "is that enough?" Most capital allocators will be hesitant to invest before there are clear signals that demand will be there and returns will follow.

To give a clearer picture of the math surrounding capital formation, a simple rule of thumb is that for every \$1 billion in capital invested in a low-carbon project, roughly \$60 million in revenue must be collected to cover returns on equity, debt servicing costs, and taxes, assuming a low-risk asset with a 5% cost of capital. That asset must also be depreciated, increasing the revenue required to about \$108 million per year, assuming a 20-year useful life. If risk increases, and with it cost of capital, the revenue that must be collected from customers grows further: For every 500 basis points increase in the cost of capital, the annual revenue requirement increases by almost \$55 million (see Figure 2). So, as central banks increase interest rates, the effective cost of any given low-carbon

Figure 2: At least \$108 million in annual revenue is required to form \$1 billion in capital for a low-risk asset



Notes: Calculations assume 75/25 debt-equity project split with 600 basis points spread between debt and equity returns, a 20-year straight-line depreciation schedule, and a 25% average corporate tax rate; values are rounded
Source: Bain analysis

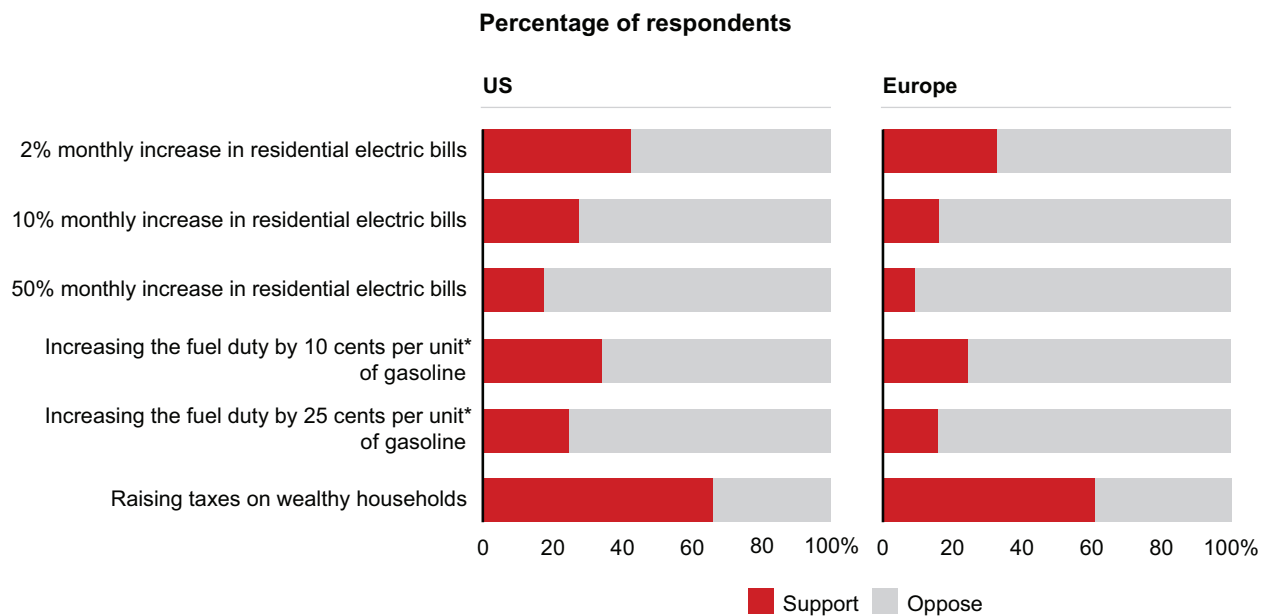
project increases as well. At a 10% average cost of capital, every \$1 billion in capital deployed requires about \$160 million in revenue from customers each year. Furthermore, all of these costs come before operating and fuel expenses.

The trouble is that although consumers are concerned about climate change, data suggests that they may not be willing to pay higher bills to help combat it. Recent Bain surveys found that less than half of US and EU consumers are willing to pay even a small increase in their residential electric bill or fuel price to reduce emissions. Instead, they prefer raising taxes on wealthy households, suggesting that consumers believe government should intervene to bring down prices of new technologies (see Figure 3).

For low-carbon projects serving business customers, such as sustainable aviation fuel (SAF) or chemicals, generating revenue requires finding a counterparty willing to pay a premium above the cost of legacy products and to provide longer-term revenue certainty. But as we discuss in our brief about a net-zero path for commercial aviation, the SAF premium can be significant.

Further barriers to capital formation and attractive returns can emerge based on an individual company's financial model and investor value proposition. Across energy and natural resource sectors, different companies have different investor value propositions, with different implied balances

Figure 3: Most consumers aren't willing to pay higher prices for reducing greenhouse gas emissions



Note: *Unit for EU respondents is liter and for US respondents is gallon
 Sources: Bain US Consumer Pulse Survey, powered by Dynata, February 2023 (n=2,496); Bain EMEA Consumer Pulse Survey, powered by Dynata, Wave 7, February 2023 (n=12,585)

of growth, risk, and return. Utilities investors generally seek low-risk, comparatively lower-return, asset deployment—a business model akin to a bank financing mortgages. By contrast, oil and gas investors understand that their sector's stocks are subject to large swings in returns as energy prices move. They're comfortable with that added risk because it's worth it to them to pursue higher returns (along with dividend payments), with potentially fast or lumpy payback periods based on commodity cycles. A utility investor would likely be uncomfortable if asked to finance a perfectly economic but risky (high-return) project, which is why US utilities have continued to shed non-regulated assets over the last decade. There would be similar challenges when asking an oil and gas investor to finance renewables projects with lower risk and lower return on capex than the existing base portfolio. Both types of projects may be perfectly viable, but different investors would value those risk/return profiles differently.

Tactically, a company's capital allocation and approvals procedures can also pose a challenge. Existing capital allocation processes may not be set up to effectively handle low-carbon projects' novel (from the standpoint of the legacy company) risk/return profiles. Something as simple as how a project's capital committee template is set up—and the differences in that template's underlying assumptions compared with a typical project—can make project approvals difficult to secure.

At leading companies, management teams work with a broad range of stakeholders to use policy to carve out demand and associated revenues.

Practical solutions for executives

In our experience working with energy and natural resource companies worldwide, focusing on one or more of the strategies below can bolster the case for capital allocations and increase a project's return on investment.

Open new markets via policy. In many cases, pure market economics will be insufficient to create low-carbon revenue at the necessary scale or pace. Policies—including subsidies, taxes, and demand-side regulations requiring industries to use these new energies—will be required. At leading companies, management teams work with a broad range of stakeholders to use policy to carve out demand and associated revenues. Those that proactively shape policy and stakeholder landscapes will generate outsize returns and better manage risks, while helping secure corporate decarbonization commitments.

Policy's financial upside for energy companies can be startling. US agri-tech company Green Plains is simultaneously accelerating its decarbonization plans while generating shareholder returns. It's

making optimal use of tax credits offered by the US Inflation Reduction Act (IRA) for carbon capture, utilization, and sequestration (CCUS) and carbon intensity reduction, as well as carbon credits offered by various North American governments. As a result, the company intends to more than halve the carbon intensity of its ethanol production platform while delivering a conservatively estimated annualized profit increase of \$200 million to \$280 million in EBITDA by 2027 over an estimated 1 billion gallons of ethanol production. This is one of many recent examples in the United States following the IRA's passage.

Neste, a biofuels producer based in Finland, has had an active presence in climate conversations during crucial policy-shaping moments. The company provides insights and analysis on, for example, emission reduction targets and renewable transportation fuels through public consultations and direct engagement with government officials and politicians. Neste also participates in industry associations that often have an instrumental role in informing government policy.

Build commercial muscles and mindsets. Leading companies also focus on developing pockets of customers who are willing to commit to their low-carbon product or service, often leveraging government incentives. This requires a deep customer-facing commercial capability that for many traditional energy and resource companies is a new muscle.

Examining potential customers' environmental activities and commitments can signal whether those customers might be willing to pay a green premium. One renewable energy company developing a clean hydrogen project started with a list of thousands of potential customers in its most attractive segments and narrowed it down to the 40 most likely customers. That allowed it to focus its sales efforts on targeted conversations that resulted in an offtake agreement that made the project economically viable.

In the biochemicals sector, Genomatica found an early partner in Lululemon to bring to market plant-based nylon that doesn't rely on petrochemicals. (For more examples of commercial excellence in the energy and natural resource transition, see the Bain Briefs "Unlocking Hydrogen Projects with a Customer-Centric Approach" and "Finding the Sustainable Advantage in Chemicals.")

In another example, utilities are increasingly considering how to reframe bills to customers. For example, one utility is contemplating adding to each customer bill the effective gasoline savings associated with charging an electric vehicle (EV) at home. EV charging drives up electricity bills, but taking a "total energy wallet" view and talking with customers about the related gasoline savings can help consumers more willingly accept higher utility prices. This would be natural to many other industries, but for utilities, it represents a new mindset.

Keep costs down. A traditional approach to making the math work can also be crucial in low-carbon technologies and markets: Become a low-cost, scale leader. Businesses that grow large enough can receive advantaged access to key components at the lowest costs, thereby freeing up room for growth. For companies like utilities, which collect revenue from customers on an average charge basis, eliminating costs can help fund low-carbon investments.

All things being equal, given the amount of global capital chasing low-carbon opportunities, low-cost capital should be available for any feasible project.

Find creative financing solutions and reduce the cost of capital. All things being equal, given the amount of global capital chasing low-carbon opportunities, low-cost capital should be available for any feasible project. But companies often overlook creative balance sheet options to maximize returns for their shareholders and secure better infrastructure financing. Too often, companies assume all low-carbon projects should be financed by the corporate balance sheet, where investors may not appropriately value the risk/return profile of the proposed investment. Creative financing solutions can bridge the gap. In the offshore wind industry, for example, complex farm-down schemes are a well-established practice to lower the project's effective cost of capital and generate returns for the developer.

Leading companies seriously consider alternatives, such as taking a development fee and transferring the asset to another advantaged source of capital, lowering overall project costs. Taking a more active approach to pursuing partnerships with investors could also prove valuable. For example, oil and gas companies could coinvest with infrastructure funds on lower-risk, lower-return projects; with development banks for projects in emerging markets; or with private capital investors willing to take on riskier, longer-term projects.

Start with the sound strategy

There are many successful low-carbon businesses already increasing revenue and generating strong returns. Each year, renewables deployment is growing, with 2022 seeing a record net addition of more than 250 gigawatts of wind and solar capacity. That said, for every company achieving leading returns and growth, there is another struggling, as our survey results show.

Developing a clear strategy that directly addresses the fundamentals of return generation in low-carbon markets is critical. With over \$150 trillion in investor capital committed toward net-zero targets by GFANZ alone, being “just another provider of capital” isn't a recipe for attractive returns. Energy and natural resource companies have real competitive advantages against pure-play capital providers, but they need the right capabilities to exploit those advantages and generate returns. Policy, commercial capabilities, creative financing, and cost discipline are a starting list of tools for supporting capital formation; there are others. While the global picture of the energy transition is complex, companies that are proactive, bold, and focused on the fundamentals of return generation will be able to overcome one of the most common challenges to scaling a low-carbon business. They'll also help move the world closer to its \$4.6 trillion goal, one project at a time.



Sector Perspectives

Can Food and Agriculture Companies Raise Their Game?

As they address health consequences and environmental issues, winning companies will find opportunities.

By John Blasberg, Andrew Keech, Vikki Tam, and Sasha Duchnowski

At a Glance

- ▶ Agribusiness, food companies, and retailers across the global food system have an urgent need to raise their ambitions on sustainability and health.
- ▶ In addressing the mounting challenges, companies can build more future-proof and competitive businesses.
- ▶ Success requires companies to elevate their ambitions, reinvent portfolios, accelerate the agricultural transformation, and change their organizations to deliver on the new imperative.

The global food system is an impressive human accomplishment. Over the past five decades, its vast productivity gains have greatly improved food security and substantially reduced the share of income that people need to spend for food. The food system has become so productive that it is now also helping to address other global issues, such as energy supply, through the growing use of biofuels.

But, like virtually all other industries, food and agribusiness companies face mounting demands, from tackling the long-term health consequences of food products to fixing an outsized contribution

to global climate and nature challenges. Today, agriculture consumes 70% of the world's fresh water, and the food system more broadly contributes over one-third of all greenhouse gas emissions and is at the heart of the 20% of annual deaths attributed to poor diet. As a result, agriculture producers, consumer products companies, retailers, and others that make up the global food system are on the verge of coming under the same high-level scrutiny experienced by oil and gas companies.

Elevating the ambition

With this backdrop, food and agriculture companies have an urgent need to raise their ambitions on sustainability and health to build more future-proof and competitive businesses. There's a lot at stake for companies that fail to take the aggressive steps required. Latecomers will face rising costs to address carbon requirements for their value chains, for example. Incumbent consumer goods companies will continue to cede growth to insurgents that are doing a better job of serving consumers' rising demands for healthier food. Companies across the food chain will find themselves losing out amid the scarce supply of limited raw materials that meet environmental standards. They're already lagging in the war for top talent. A telling fact: No agribusiness or food producer was named in the Fortune 100 Best Companies to Work For list in 2023.

By our analysis, food companies that seize the initiative can benefit from a potential 15% five-year revenue uplift compared with a 43% revenue decline for companies that fall behind based on a scenario of increasingly aggressive regulation.

Acting now allows companies to turn risks into opportunities—new products, categories, and markets, or increased share of growth. By our analysis, food companies that seize the initiative can benefit from a potential 15% five-year revenue uplift compared with a 43% revenue decline for companies that fall behind based on a scenario of increasingly aggressive regulation. By changing product and ingredient portfolios, as well as where and how foods are produced, large food and agriculture companies can shift the food system toward healthier and more nutritious food—and healthier populations—while tipping the environmental impact from negative to a net positive.

An integrated food systems ambition, once defined, will have strategic implications for agriculture and food businesses in three particularly critical areas: product portfolio, agricultural sustainability, and ways of working. Here are examples of winning approaches in each of those areas.

Reinventing the portfolio

Product portfolio reinvention will be a critical element of food system transformation for upstream and downstream companies alike. As an example of the scale of the issues at hand, one study determined that among 50,000 food products in the US, 73% is made up of ultraprocessed foods.¹ Such foods are linked to a wide range of health issues, and reduced consumption is recommended in national dietary guidelines in places as diverse as Canada and Brazil. The need to transform portfolios is not limited to downstream players. For example, agricultural input portfolios may need to add seeds that support more diverse crops, or equipment and inputs to support more sustainable farming practices—in addition to supporting reduced fertilizer and chemical volumes through more precise application.

Facing mounting pressure to offer healthier and more sustainable goods, companies can reevaluate their portfolio strategy to determine the product mix that will best help them meet those new demands without dismantling a core that has delivered decades of profitable growth. That means identifying and exiting the unfixable parts of the portfolio and spending more time and energy on the brands and products that have the fundamentals that will allow them to satisfy consumers' needs for delicious, healthy, and sustainable foods.

When it comes to shifting food product portfolios toward better health, a common refrain from food company executives is that the indulgent segments of consumer goods categories are growing faster than the “better for you” segments. Indeed, in the US, consumption of ultraprocessed foods increased from 53.5% in 2001 to 57% in 2018, and the consumption of whole foods declined over the same period.

However, many leaders are not accepting that such a shift is an either/or decision, and the winners of the future will likely have more balanced portfolios than most food companies today. They will offer products that reduce trade-offs for consumers, introducing ones that can be delicious, healthy,



and affordable. PepsiCo took a step in this direction when it started gradually lowering the amounts of sodium, saturated fat, and sugar in its snacks and beverages, with plans to bring them even lower—and to do it without consumers noticing. The company already has reached its 2025 target of producing 75% of its food portfolio volume with 1.1 grams or less of saturated fat per 100 calories. It also is advancing on its targets for reducing sodium and added sugars.

This shift toward healthier portfolios will get a big push from sugar and salt taxes introduced, as well as from newly required health labeling on packages. Consider that around 85 jurisdictions around the world have implemented a form of sugar tax. Also at play: a flood of venture financing—roughly \$13 billion—was invested into sustainable food systems technology and innovation globally in 2021. (By comparison, the *total* R&D budget for the top 10 global food companies was roughly \$4 billion.) This magnitude of venture funding to solve the problems of health and sustainability shows these issues are already a major focus among private investors. Now, the question is whether food companies will get ahead of this imperative or be disrupted by it.

In addition to aggressively reducing salt and sugar content in its products, Nestlé has turned to M&A to transform its portfolio. In the years 2017–22 the world's largest food company made more than 20 acquisitions and sold 10 business units. During that period, total shareholder return rose by an annual 9.5%. Nestlé also has committed substantially more funds to sustainability efforts, more than \$1 billion annually, twice as much as the next competitor.

Agricultural production contributes two-thirds of Scope 3 emissions, which could be substantially reduced through more sustainable farming practices, such as regenerative agriculture for crops.

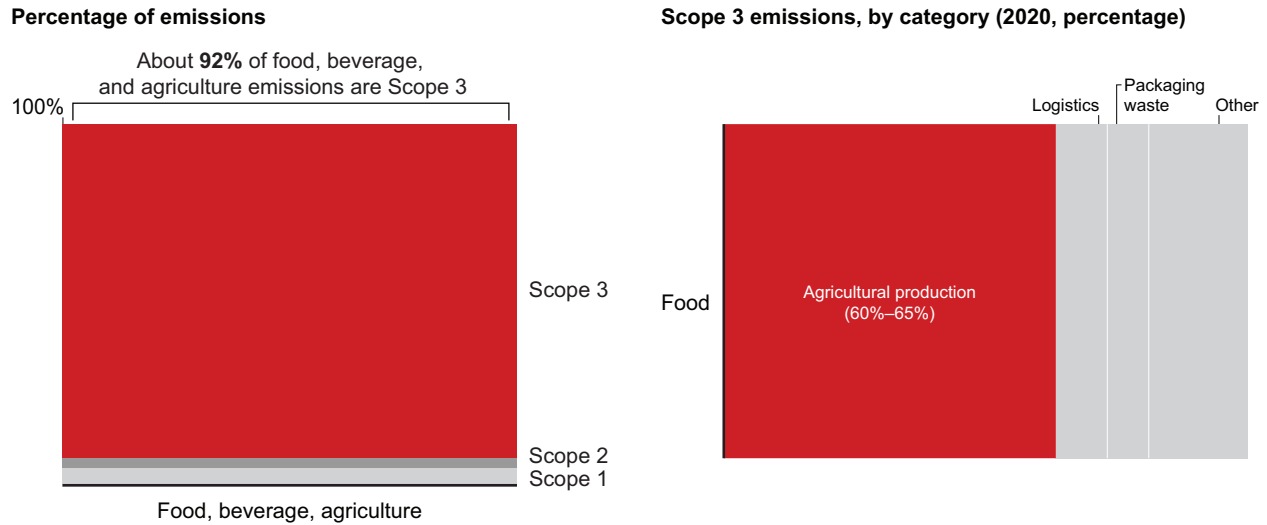
Accelerating agricultural transformation

Almost all food and agriculture companies are way behind in their Scope 3 emissions reduction. Agricultural production contributes two-thirds of those emissions, which could be substantially reduced through more sustainable farming practices, such as regenerative agriculture for crops (see *Figure 1*). But adoption of these practices is low, and until companies can solve the scaling problem, they will fail to achieve their Scope 3 commitments. Most important, they will fail to realize the opportunity that exists for agriculture to reduce its own climate impact and be a positive contributor on the path to net zero and in other areas such as water and biodiversity.

Reducing the food supply carbon footprint requires engagement across the food value chain—everyone from input and equipment providers, to farmers, to commodity traders and processors,

Figure 1: Addressing Scope 3 emissions through regenerative agriculture is a powerful opportunity to deliver on GHG commitments

Agriculture makes up majority of Scope 3 emissions in food



Notes: Breakdown of Scope 3 emissions data gathered from company ESG reports looking at 2020 total emissions and then a weighted average of source across 10 companies; other includes downstream emissions; GHG stands for greenhouse gases
Sources: Company reported emissions (2020); Bain analysis

to ingredient and food companies—and with a broader ecosystem of stakeholders such as governments, financial services providers, investors, and grower organizations. As far back as the 1980s, soil health was a growing concern for many stakeholders in the Canadian food system who wanted to generate acceptance for conservation tillage, a regenerative agriculture practice. After local farm associations spread awareness and provided technical expertise, equipment companies marketed new equipment, prototyped by entrepreneurial local farmers, that made conservation tillage compatible with mechanical seeding. Meanwhile, the federal government offered grants to reduce upfront costs of new equipment. As a result of coordinated ecosystem action, adoption of conservation tillage practices in Canada are now at almost 80%, substantially further ahead than other developed markets.

Success calls for a paradigm shift for upstream and downstream companies: putting growers at the center, surrounded by the right conditions for making changes. We refer to these as the 4As of adoption.

Awareness: Farmers must know about climate-smart and nature-positive practices and technologies—and have access to the technical expertise and support needed to implement them.

Advantage: Farmers must have confidence that adopting new practices and technologies will deliver an attractive rate of return, both now and into the future.

Access: The right inputs, tools, equipment, and methods must be available to farmers, when and where needed.

Affordability: Upfront costs for farmers must be reasonable, with affordable financing available to support initial investments.

Collaboration between players across the ecosystem is essential to establishing these 4A conditions for farmers, particularly for creating the economic case for change to growers (Advantage and Affordability), which our analysis shows is the biggest barrier to change. This requires involvement of players inside the value chain as well as those outside it, such as financial services providers.

The Soil and Water Outcomes Fund is one such innovative, precompetitive partnership model, which brings together actors across the value chain (including Nutrien, Cargill, PepsiCo, Target, and ReHarvest Partners, a financial services provider) and the Iowa Soybean Association. SWOF aids farmers' transition to regenerative agriculture through payments for carbon and water outcomes. While partnership models like SWOF are encouraging, still more investment is needed. Most regenerative practices are not widely adopted, and many have yet to be adopted on even 10% of the roughly 230 million acres of soy, corn, and wheat planted annually in the US.

Food system heroes will need to partner with brands and R&D functions to collaborate on how to address sustainability challenges in ways that deliver delicious and affordable products for consumers.

Changing the organization

Just as important as what needs to be done is how companies mobilize their enterprises to progress on these priorities. For example, it requires cross-functional collaboration in newly established forums to factor the impact on sustainability or health in funding decisions.

The food systems imperative will give rise to a new set of heroes. In food retailers, it will be the merchandisers. In consumer goods companies, it will be supply chain and procurement teams. They will be the ones driving Scope 3 decarbonization. But they won't be able to do it alone. They will need to partner with brands and R&D functions to collaborate on how to address sustainability challenges in ways that deliver delicious and affordable products for consumers.

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As with any successful change to ways of working, this one starts with management alignment and commitment. As an example, General Mills' Global Impact Governance Committee, which includes the company's CEO, CFO, and group president, North America Retail, among others, has adopted and signed a formal charter that articulates its ownership over this enterprise mission. It is not a steering committee sitting in judgment of others' efforts. Instead, it has taken on the responsibility of seeing General Mills' mission through.

In a global food system facing huge changes, winning companies will be those with unwavering support from the top—and with leaders willing to make the tough trade-off decisions that inevitably will be required.

Getting started

Companies can begin this journey into the future by asking and answering a series of fundamental questions.

- How are we contributing—both positively and negatively—to the health and environmental footprint of the food system?
- How might environmental, health, consumer, technology, and regulatory dynamics/developments affect the food industry over the next 10 years?
- What will the agri-food company of the future—and our company—need to look like in 10 years?
- How do we scale our regenerative agriculture and portfolio reinvention priorities?
- How can we better mobilize our entire organization?

1. Data is based on the NOVA classification of foods, which defines ultraprocessed foods as ready-to-eat, industrially formulated products that are made mostly or entirely from substances derived from foods and additives, with few, if any, edible parts of plants or animals that have been taken straight from nature or that have been minimally modified/preserved.



Sector Perspectives

Fires, Floods, and Loans: How Banks Can Deal with Increasing Climate Risks

Climate-related perils are on the rise—both threatening banks' loan portfolios and offering new business opportunities.

By Camille Goossens, Rocco D'Acunto, Ghizlene Azira, and Aude Schonbachler

At a Glance

- ▶ Wildfires, droughts, and other climate-related perils threaten banks' loan portfolios, yet many have only a general sense of their vulnerabilities.
- ▶ We expect real estate assets' exposure to physical risk to rise over the next couple of decades, likely reducing the value of collateral and damaging banks' mortgage business profitability.
- ▶ Banks that take the right steps soon could improve their financial stability, customer retention, and compliance with emerging regulatory standards.
- ▶ Measuring physical risk requires new tools, capabilities, forecasting horizons, and data—all of which have been challenging to source and embed.

As if banks don't have enough to worry about with high inflation and the recent turmoil around liquidity and long-term assets, now, another risk looms increasingly large—namely, the destructive power of the natural world. High winds, floods, and other hazards pose significant threats to real estate assets and more broadly to the productivity of businesses within banks' portfolios. To better understand the risks and trends accompanying these perils, Bain & Company analyzed data provided through a unique strategic partnership with climate risk analytics firm Jupiter Intelligence.

Banks have begun to understand their climate risks, in part because regulators are starting to probe the vulnerabilities of portfolios' risk through climate stress-testing. But few banks have holistically quantified their physical risks by business or industry using forward-looking data and scenario-based modeling, as opposed to historical data. Even fewer have taken steps to mitigate the risks. Given the continued housing and commercial development in harm's way, banks need to get more rigorous about addressing climate-related physical risks.

Perfect storms

Since the middle of the last century, climate-related perils have been growing worldwide in number and intensity, the World Meteorological Organization reports, a pattern consistent with rising carbon dioxide emissions and temperatures. Human settlement and economic activity, meanwhile, continue to expand along seacoasts and other vulnerable areas.

Financial regulators globally have taken notice and increasingly ask for more accountability on physical risk measurement. The European Banking Authority, for instance, now requires banks to carry out scenario analyses on how such risks could affect the loan portfolio.

Yet banks are only now starting to incorporate physical risk into their business models. Bain analyzed the top 50 banks globally (by total assets) that currently adhere to the Financial Stability Board's Task Force on Climate-Related Financial Disclosure. Bain found that in Europe, only 18% of those banks have begun to integrate physical risks into their business strategy.

Sizing the exposure

The data and tools available to help measure and understand the extent of various physical perils and their economic costs have become more reliable. Financial losses range from crop failure to damaged infrastructure to business and employment interruption.

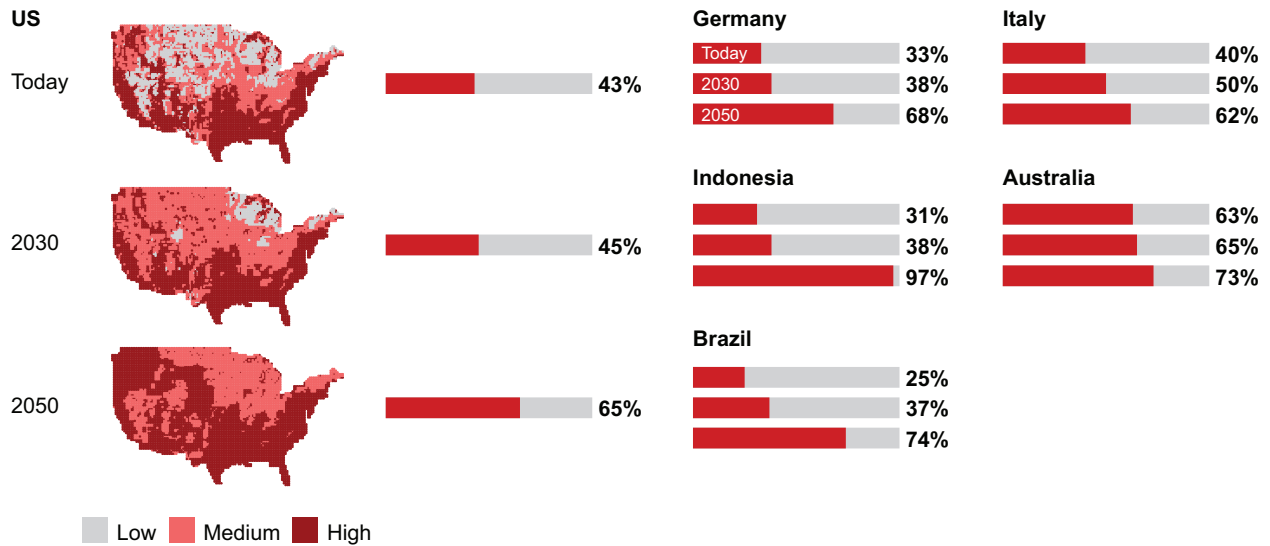
Bain used Jupiter Intelligence's data to assess the extent of physical risk exposure over a 30-year horizon in any country, down to individual properties in a neighborhood. Jupiter measures physical risk across eight perils: flood, precipitation, wind, heat, wildfire, hail, drought, and cold. Based on a score that synthesizes those perils, Jupiter assigns a risk intensity to the region.

Consider how much territory falls in the high-risk category—namely, a territory where an extreme event such as a hurricane or flood has a high probability of occurrence. As an example, Jupiter categorized 43% of the US, 63% of Australia, and 31% of Indonesia as high risk. For all countries assessed, physical risk increases over time (see *Figure 1*). In Germany, 33% of the territory is exposed to high physical risk today, a level expected to double by 2050. In Brazil, the extent of high-risk territory will likely triple by 2050, to 74%. In sum, physical risks are already widespread and will grow worse.

Physical risk affects banks mainly in two ways. First, it damages collateral, such as a house or factory, and reduces its value. Second, it impairs and may lead to the insolvency of counterparties because

Figure 1: Physical risks are expected to increase in every country

Percentage of land subject to risk of physical perils



Note: Perils included are flood, precipitation, wind, heat, and wildfire
 Source: Jupiter Intelligence

of a loss of production and creditworthiness. For example, crop failures caused by drought or flooding could expose an agribusiness to losses that make it difficult to repay a loan.

Of course, any single natural hazard will have a different degree of impact on each country or industry in a bank's portfolio. Banks will also want to assess different outcomes of an event, whether those are physical damages, rising energy costs, or business interruptions.

Exposure of a mortgage portfolio

To illustrate the potential effects of climate events on the banking sector, Bain analyzed a sample mortgage portfolio of 10,000 assets in Italy, using Jupiter data. We assessed the current and expected future physical risk exposures for all eight perils across UN climate panel scenarios that range from carbon dioxide emissions cut severely to reach net zero after 2050 (Shared Socioeconomic Pathway 1-2.6, SSP1-2.6) to emissions that hover around current levels before starting to fall midcentury (SSP2-4.5) to emissions that roughly double by 2050 (SSP5-8.5). Across Italy as a whole, 40% of these sample locations are already highly exposed to at least one natural hazard today, a level expected to rise to 62% by 2050, which highlights the need for a comprehensive physical risk data set.

The assessment reveals how quickly a mortgage portfolio can become exposed to high levels of risk related to one hazard—in this case, fire, taking into account factors such as fuel availability and local

fire suppression (see Figure 2). When the effects are combined with those of flood and drought risks on our sample portfolio, our analysis shows that damages could be as high as 10 to 15 percentage points of the value of collateral, and potentially much higher for assets in very high-risk areas.

The damage could then worsen already eroded margins via a 7- to 10-percentage-point reduction in the profitability of newly originated mortgages over a 10-year period. The magnitude of this hit to profits raises the stakes for banks to clearly understand how physical risks can affect their portfolios.

Developing a sound strategy

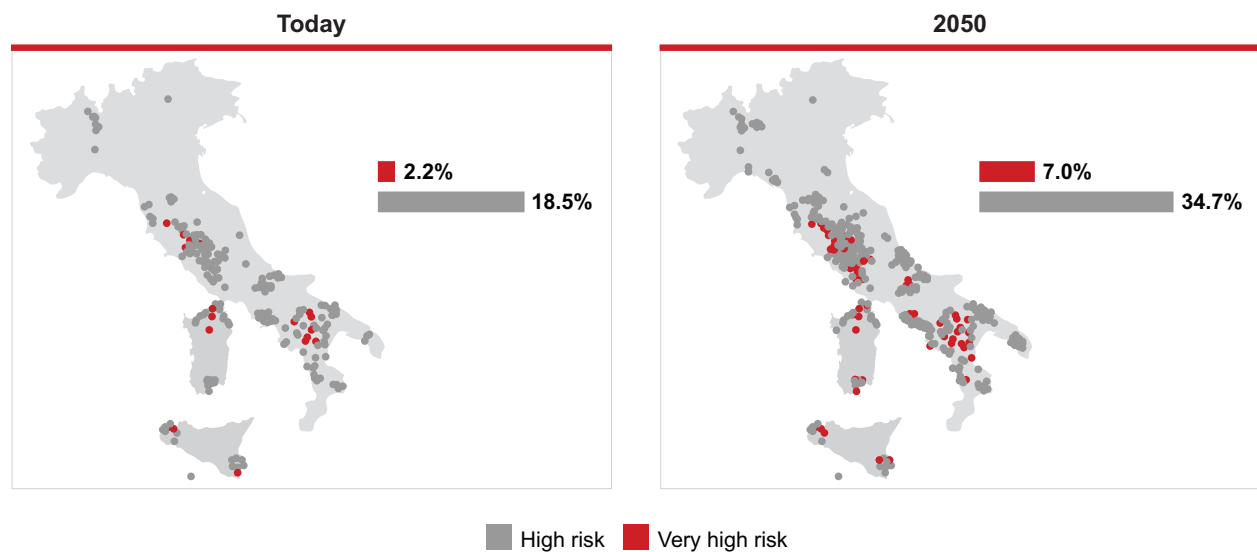
This type of analysis is essential for developing a sound strategy that combines mitigation measures with opportunities for new business.

Defensive tactics. The analysis first informs decisions on how to mitigate risks through defensive tactics such as:

- imposing loan-to-value caps;
- shifting the mix of customer segments;

Figure 2: In Italy, twice the number of assets will be exposed to high risk and three times more assets exposed to very high risk of fire by 2050

Percentage of total portfolio of 10,000 assets exposed to fire risk



Source: Bain analysis of Jupiter Intelligence data

- reducing the cost of risk through credit protection insurance; and
- adjusting prices on highly exposed areas.

Defensive tactics could be worth 5.5 percentage points in net operating income to the mortgage portfolio of a bank.

Offensive tactics. Beyond the defensive stance of mitigating risks, banks can take a more offensive posture by, for instance:

- raising discount levels on low-risk assets;
- pushing for credit protection insurance; and
- standalone climate risk protection insurance.

Offensive moves could add an additional 5.3 percentage points in net operating income.

New offerings. Banks can also create a competitive advantage by developing new financing products and advising clients to help them make the transition. New risk-related business opportunities could include the following:

- fostering and financing adoption of climate adaptation solutions;
- promoting public-private partnership financing in cities and towns; and
- offering assessment of the physical risk resiliency of corporate assets and facilities.

This set of new business moves could further add 10 percentage points to net operating income.

In sum, combining mitigation measures with value creation moves could yield a 15- to 20-percentage-point (or more) increase in net operating income in 2030. Moreover, taking limited or no action will have more severe consequences over time (see *Figure 3*).

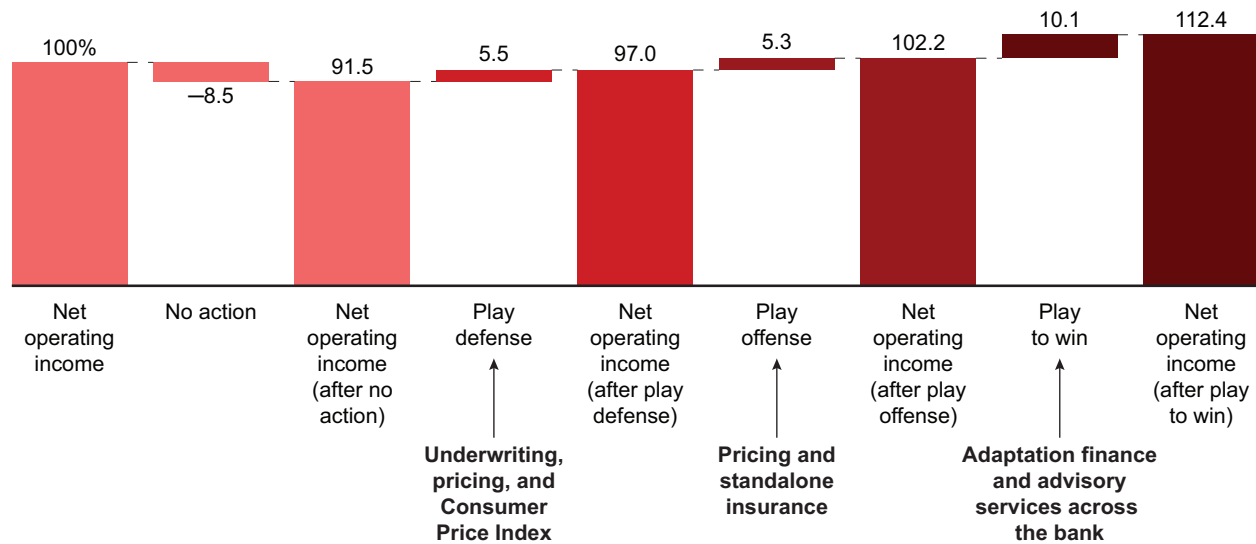
Becoming a first mover or fast follower

It's high time for banks to integrate physical risk into risk, credit, and strategic planning processes. This entails updating credit rating assessment and policies as well as collateral analysis to reflect physical risk, adapting client onboarding to capture key risk-related information, and incorporating the risks into customer segmentation to ensure a consistent treatment of physical risk across the bank.

A shift in strategy to incorporate the realities of physical risk will require banks to continuously experiment and anticipate market responses, adapting their business model as necessary. But any tactic will have reputational and regulatory implications that need to be considered along with the economic effects.

Figure 3: As physical risks increase, banks should adopt a mix of defensive and offensive tactics while also pursuing new business opportunities

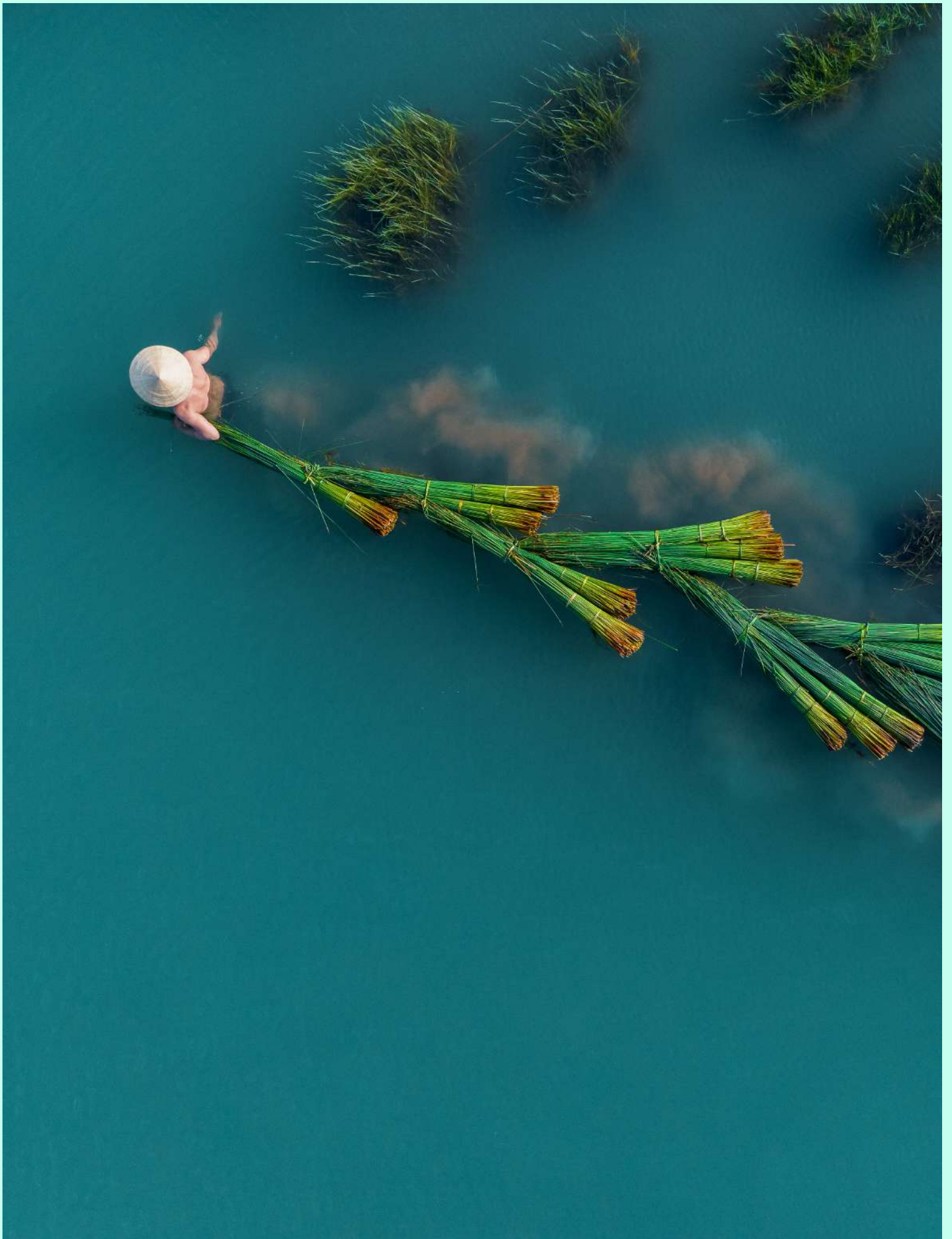
Percentage point change in net operating income of a sample mortgage portfolio over a 10-year period



Note: Bar totals are rounded
 Source: Bain analysis of Jupiter Intelligence data

A bank can start by assessing its portfolio to measure peril-specific exposure and identify the hot spots most relevant to the specific asset class and industry assessed. Based on the mix of perils in a portfolio, the bank can identify an initial set of mitigation tactics in line with market conditions, regulatory constraints, and the bank’s overall strategy. Depending on its ambitions, it could then also identify openings for new peril-related products and services that create value while strengthening clients and communities against climate-change effects.

Physical risk represents a major threat, to be sure, but also a unique opportunity for innovation in the banking sector. Ambitious banks that move soon to take the right steps could improve their financial stability and perception among customers and regulators. Even if a bank does not have the appetite or capabilities to be a first mover in this regard, it pays to start planning now, as it’s impossible to become a fast follower without early preparation.



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Making It Happen

Building a Data-Based Stakeholder Strategy

How to design, measure, and implement a strategy that creates value for your company's diverse stakeholders.

By Darrell Rigby, Zach First, and François Faelli

At a Glance

- ▶ Companies are using increasingly accessible and rigorous data to generate value for key stakeholders.
- ▶ Those that create the most value study and utilize outside perspectives, add proprietary internal data, understand stakeholder interdependencies, and then build a strong system to sustain their stakeholder strategy.

Most people will readily agree that the first responsibility of business leaders is to grow the long-term value of their companies. Then debate begins: What is value, and how should it be measured and managed? Is a company's value maximized by being shareholder-centric, customer-centric, employee-centric, or some-other-stakeholder-centric? In a complex system where every stakeholder influences other stakeholders' outcomes—highly engaged employees improve customer satisfaction and growth, and so on—is it safe to neglect any stakeholder?

A decade's worth of data shows us that the companies that create the greatest total value across all dimensions of performance don't sacrifice shareholder value. For example, over the past decade the 100 companies included in the S&P/Drucker Institute Corporate Effectiveness Index, those that are

best at creating value through “excellence in employee engagement and development, customer satisfaction, social responsibility, innovation, and high-quality earnings,” delivered total shareholder returns more than 200 basis points higher per year, on average, than those of the broader S&P 500.

Increasingly accessible and rigorous, data now grounds once theoretical discussions of stakeholder value, helping companies craft and implement effective growth strategies by illuminating the complex interdependencies among stakeholders, helping create mutual benefits, and, in turn, increasing the net value generated collectively for their constituents.

A three-step process for building a successful stakeholder strategy

Companies can most effectively harness this data to build strong stakeholder strategies by taking three steps:

1. Explore outside perspectives

There is now a plethora of organizations that track the total stakeholder value that companies produce and the value that they generate for individual stakeholder groups. Independent rating agencies such as the Drucker Institute, Just Capital, and the Embankment Project for Inclusive Capitalism offer sophisticated analyses of the complex relationships among stakeholder interests.

2. Move beyond third-party rankings

These outside organizations assign the same weight to all stakeholders of all companies and rely only on publicly available data. Since one size does not fit all, you need to bolster such external data with insider insights and gain an understanding of the interdependencies among your company's particular mix of stakeholders.

Armed with that information, develop a clear stakeholder strategy. Clarify the purpose of your company, establish criteria for evaluating progress toward achieving it, set priorities among stakeholders, and develop action plans that recognize the complex interdependencies among them. The strategy should aim to create mutual benefits for all stakeholders and increase the net value of the collective system.

Your stakeholder priorities should reinforce your strategic strengths. Consider Costco, for example, whose cofounder and former CEO, Jim Sinegal, faced constant pressure to reduce value for his customers and employees and transfer more to shareholders. He refused, famously explaining the company's strategy to *The Motley Fool* this way: “We've got essentially four things to do in our business: We have to obey the law, we've got to take care of our customers, take care of our people, and respect our suppliers. We think if we do those four things, pretty much in that order, that we're going to do what we have to do in the long term, which is to reward our shareholders. We think it's possible to reward them without paying attention to those four things in the short term, but if you don't pay attention to them in the long term, we think you stub your toe somewhere along the line.” That prioritization is explicitly spelled out in Costco's code of ethics on its website to this day. Virgin Group's

founder, Richard Branson, shared a different point of view with *Inc.* magazine: “If you can put staff first, your customer second, and shareholders third, effectively, in the end the shareholders do well, the customers do better, and [you] yourself are happy.”

The lesson is not that every company should be like Costco or Virgin but rather that there is no single “right” stakeholder strategy.

3. Sustain the new strategy

Now that your company has developed a stakeholder strategy, here are some actions leaders can take to nurture it.

Build a culture that embraces the stakeholder strategy

Educate the board and perhaps change its makeup so it better represents different stakeholder groups. Consider changing metrics and rewards for managers.

Design new organizational structures and processes

Establish a small center of excellence to help guide the stakeholder strategy and track results. Launch cross-functional agile teams to pursue ways to generate mutual benefits for different stakeholder groups. For example, engage technology experts to improve products for customers while also reducing tedious or dangerous tasks for employees.

Possible new processes include requiring business units to begin their quarterly business reviews with descriptions of their value creation trends and targets; mandating that investment proposals include projections of the impact on different stakeholder groups; developing better ways to collect feedback about stakeholders’ needs, satisfaction, and frustrations; and changing the communication strategy to attract the right stakeholder segments.

Executives are finding that stakeholder strategies are neither altruistic nor unrealistically complex. They can be designed and implemented in ways that increase value for all stakeholders, including shareholders.

Even hardcore profit maximizers are migrating toward stakeholder strategies. British retailer Next, for example, is pursuing a joint goal: maximizing shareholder value while also increasing value for its non-financial stakeholders. Some call this an enlightened shareholder strategy, but a stakeholder strategy by any other name is still a purposeful step in the right direction. And each step builds greater evidence and confidence that stakeholder strategies aren’t simply worthy aspirations; they make solid business sense.



Making It Happen

Operations and Supply Chain Decarbonization: Lower Emissions, Higher Performance

By integrating sustainability into operations, companies can meet their increasingly ambitious emissions targets while mitigating costs and boosting resilience.

By Torsten Lichtenau, Abhijit Prabhu, Anna Fritz Månsson, Mattia Bernardi, and Gerry Mattios

At a Glance

- ▶ To achieve ambitious decarbonization targets, companies must treat emissions with the same operational importance as improving efficiency and reducing costs.
- ▶ Of companies that have set a target to reduce upstream Scope 3 emissions, 60% do not have a dedicated strategy to deliver, our research shows, but those that do can build this into a competitive advantage.
- ▶ We have identified four actions leading companies take that contribute to decarbonization success, practices any company can benefit from emulating.

Decarbonization is urgent. Countries representing 90% of the world's GDP have committed to cutting greenhouse gas emissions to as close to zero as possible, and investors, customers, regulators, and employees are all focused on carbon. Companies across industries are setting ambitious goals

for reducing various types of carbon emissions (see Figure 1). As of October 2023, more than 6,000 companies representing close to 50 different sectors had set or committed to setting Science Based Targets for emissions reduction. That's up from fewer than 500 companies in 2018.

Each company and industry faces its own unique decarbonization challenges and opportunities, but it's fair to say that organizations across the board are struggling to meet their increasingly ambitious targets. A Bain & Company analysis of CDP data finds that more than 20% of companies are not on track to reach their reduction targets for the Scope 1 emissions generated by assets they own and operate or the Scope 2 emissions generated by purchased electricity and fuel. More than a third may not meet their planned reduction of upstream Scope 3 supplier emissions (see Figure 2).

Decarbonization is critical to operational excellence

To improve those numbers, companies must embed reduction of their carbon footprint into their operating model and treat it with the same importance as improving efficiency and reducing costs. Production efficiency, cost, and carbon emissions can be seen as three corners of a “triangle of optimization,” each requiring equal and parallel attention. When well harmonized, they can benefit one another. This approach is particularly true for Scope 1 and 2 emissions, which often can be reduced while also lowering costs.

Figure 1: A guide to emission types

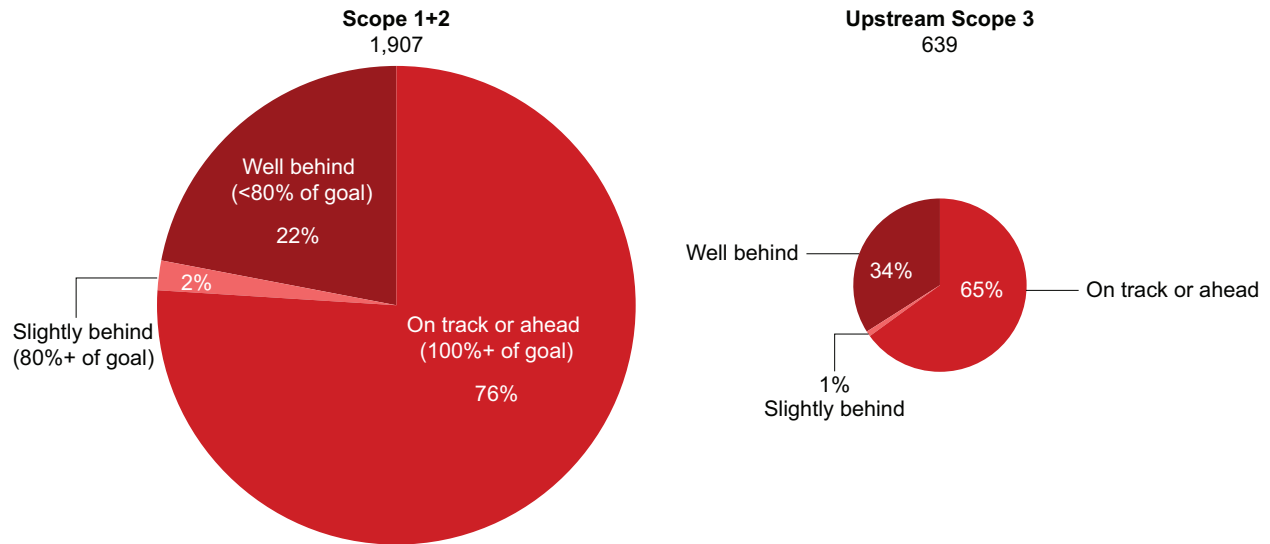
	Definition	Level of company control
Scope 1	Direct emissions generated by assets owned or operated by the company	High, though cost can be prohibitive in industries that are asset and energy intensive
Scope 2	Indirect emissions generated by energy purchased for company operations	High/medium; company can choose lower-carbon energy supply, but only when available
Upstream Scope 3	Indirect emissions generated in the making of inputs for a company's product or service	Low/medium; requires partnering with suppliers to change others' operations
Downstream Scope 3	Indirect emissions generated in the distribution, use, and disposal of a company's product or service	Low; requires influencing customers to change behavior

 Addressed in this article |  Not addressed in this article

Source: Bain & Company

Figure 2: More than one in five companies are not on track to meet their Scope 1 and 2 decarbonization targets, and more than one-third are lagging their upstream Scope 3 goals

Share of companies on track to achieve near-term targets



Notes: Percentage of achieved reduction from base year to reporting year compared to target; analysis covers near-term targets (2030 or sooner)
Sources: CDP, 2022; Bain analysis

A paper manufacturer was able to do just that: By defining and prioritizing 70-odd decarbonization initiatives across 10 different sites, it is currently on track to reduce emissions by more than 20% by 2025 while achieving €10 million to €15 million in energy savings. In many industries, executives link decarbonization efforts with energy transition and energy efficiency as a way to reduce their exposure to volatile energy costs.

Most companies start their decarbonization efforts with Scope 1 and 2 emissions because they are closer to their own control. That doesn't mean they are easy to address, however. These efforts require new thinking about energy consumption, sourcing, and production, along with the ability to orchestrate extraordinarily complex change.

When a global semiconductor manufacturer launched a comprehensive plan to reduce greenhouse gas emissions and shift its energy sources to address Scope 1 and 2 emissions, management quickly identified more than 600 initiatives. Managing such an expansive pipeline is a complex challenge. To prioritize, management pinpointed those with the highest CO₂e impact that were easiest to implement and focused on understanding their cost—a model they have now standardized across the company. Lots of work was done on the ground to determine the right energy sources for each plant and to ensure goals were achievable and optimized for both energy efficiency and the sourcing of renewable energy. Early results have been strong: a reduction of Scope 1 and 2 emissions that's roughly 10% higher than plan and a notably higher-than-expected use of renewable energy.

Like this semiconductor maker, many companies are able to achieve their Scope 1 and 2 ambitions in the first few years by making their operations more efficient and reducing their energy use. It's when they get beyond those first successes and face external expectations of a steady annual rate of emissions reduction that they start to really struggle. Decarbonization requires more than mastering the handful of technical operational levers that will make an immediate dent in Scope 1 and 2 emissions.

Upstream Scope 3 emissions: for many, the biggest opportunity and the biggest challenge

Upstream Scope 3 accounts for the largest share of emissions in many sectors, responsible for more than 50% of all emissions in apparel, food and beverage, chemicals, and retail, for example, according to CDP data. This may be why, while the number of companies setting targets across all scopes strongly increased in recent years, the most significant growth has come in Scope 3 emissions. More than 4 in 10 companies now target Scope 3 improvement.

Meeting those targets often requires new skills and behaviors, some of which may be unfamiliar to engineers focused on optimizing performance and procurement experts charged with negotiating the best terms, sometimes adversarially. These include partnering with suppliers and other participants in the value chain, identifying and selecting greener suppliers, replacing virgin materials, and designing products with a lower carbon footprint.

Adding to the challenge is the fact that, in many categories, sustainable supply is limited, leaving companies two options: invest to secure access to that supply and possibly buy a few years' head start on competitors, or accept that achieving their emissions reduction goals may take longer than hoped.



60%
of companies that set
an upstream Scope 3
target do not have a
strategy to deliver on
that goal

As with Scope 1 and 2, a well-developed upstream Scope 3 plan can help mitigate cost when integrated into a company's broader supply chain strategy, including a combination of product development optimized for cost and product development optimized for sustainability.

According to Bain research, approximately 60% of companies that set an upstream Scope 3 target do not have a dedicated strategy or plan to deliver on that goal. Those that do can build this into a competitive advantage.

Four lessons from successful supply chain decarbonization efforts

As they plan their strategy to get to net zero, executives should consider these four lessons from leading companies.

When calculating baseline emissions, be pragmatic; don't wait for perfection. Establishing a baseline for your operational emissions can be challenging, especially for the upstream Scope 3 emissions that companies do not directly control. While an accurate baseline enables more precise goal setting, don't prioritize perfection over action. It's most important that analytical efforts to understand existing carbon emissions serve the company's action plan by highlighting interventions with the highest potential to help meet goals. By systemizing carbon baselining and accounting—with software tools, for example—and how data is exchanged with suppliers, companies can build a level of insight into their emissions that will only get more precise over time.

Collaborate internally and externally. Achieving decarbonization goals can't be the responsibility of one internal function. Procurement shouldn't be the only department thinking about suppliers' upstream Scope 3 emissions, nor should a plant manager be expected to manage Scope 1 and 2 emissions reduction all alone. Companies will only hit their decarbonization goals when the entire organization, from the C-suite to the front line, in every business unit, is committed to and educated on the mission. Building that commitment often requires aligning incentives across functions and roles around common decarbonization goals.

As partners, companies and their suppliers can work together to understand where they each wish to be positioned on the value chain. Getting there may require new approaches.

Think beyond the boundaries of your organization to the ecosystem of partners you'll need to realize your decarbonization ambitions. As partners, companies and their suppliers can work together to understand where they each wish to be positioned on the value chain. Getting there may require new





The Visionary CEO's Guide to Sustainability

approaches, like investing to help suppliers lower their emissions or building a consortium of peers to standardize new, lower-carbon requirements. That's the approach taken by the 100-plus consumer products companies that make up The Sustainability Consortium, which is working on ways to make supply chains more transparent, identifying areas of environmental impact, mapping supply chains and their risks, and facilitating collective sustainability innovation.

Use all levers at your disposal and put in place the tools necessary for them to work. Once targets are set, identify all levers that could help you meet them. For example, you may need to switch suppliers or redesign a product. Many firms focus on the low-hanging fruit that will quickly reduce carbon emissions, but companies should think about their overall decarbonization journey, including initiatives that will take more time, innovation, or development.

Enablers are also important. These are the tools—like internal carbon pricing; new ways of interacting with, evaluating, and rewarding suppliers; and capability building—that will make it possible to pull the levers that lower emissions. Though it may sound obvious, it's important to prioritize initiatives based on their potential to reduce carbon, reduce costs, and increase resilience. Many companies miss this step. And since many decarbonization initiatives cannot be implemented autonomously, suppliers and customers should be engaged in evaluating their feasibility, priority, and potential to either lower costs or increase revenue (see *Figure 3*).

Figure 3: Reducing upstream Scope 3 emissions requires action on multiple fronts

 <p>Help suppliers reduce their carbon footprint</p>	<ul style="list-style-type: none"> • Set carbon emissions requirements for your suppliers • Design incentives to encourage supplier decarbonization • Share best practices on power sources, raw materials, by-products, waste, etc. • Collaborate through partnerships and investment in joint reduction
 <p>Select and steer orders to greener suppliers</p>	<ul style="list-style-type: none"> • Allocate volume to the most CO₂-efficient existing and new suppliers • Optimize the balance between in- and outsourcing • Optimize logistics such as order frequency and mode of transport
 <p>Design products with reduced carbon footprint</p>	<ul style="list-style-type: none"> • Shift to greener alternative raw materials such as recycled plastic and green steel • Shift to alternative raw materials (e.g., from steel to carbon fiber) • Design with carbon in mind (e.g., reduce raw material per unit by decreasing weight or design for improved recyclability)
 <p>Engage the value chain through partnerships and other structural moves</p>	<ul style="list-style-type: none"> • Partner across the value chain (e.g., on circular models such as recycling initiatives) • Broaden industry partnerships (e.g., bringing all suppliers together to set joint standards) • Configure your value chain (e.g., integrate vertically)

Source: Bain & Company

Near-term steps such as managing suppliers can offer valuable carbon reductions, but it's often longer-term efforts that present the greatest opportunities. In the automotive industry, for example, designing low-carbon alternatives for metals, alternative raw materials, and low-carbon products can reduce upstream Scope 3 carbon emissions by approximately 40% to 60% or more, but such efforts may take years. To speed that up, manufacturers are collaborating with, investing alongside, and guaranteeing to buy supply from steelmakers producing CO₂-reduced green steel.

Actively look to create value for your company and customers through decarbonization. While there may be a legacy perception that reducing carbon emissions will increase costs and decrease economic competitiveness, many initiatives can lower costs and help increase revenue. For example, reducing Scope 2 emissions by optimizing building operations like HVAC and lighting saves money, savings that can be passed on to customers or used to fund other decarbonization initiatives. Similarly, companies may be able to boost revenue by charging a green premium or build new businesses with different models that create value for the firm. Thinking about your customers' priorities can help guide decarbonization efforts and increase the likelihood of achieving carbon reduction goals and reaping rewards from a low-carbon supply chain.

Five questions for executives to ask today

To understand how close your company is to making decarbonization a core operational capability and a source of competitive advantage, it's valuable to ask five questions:

1. What is my company's emissions trajectory, and how does that compare to the targets we've set?
2. Has my team spent time on the shop floor (or its equivalent) to understand where renewable energy and energy efficiency could be used?
3. Do our procurement and engineering teams consider carbon equally important to cost and efficiency in their talks with suppliers and when designing products?
4. Have we added decarbonization to our management dashboard, so we see it alongside our financial performance and operational efforts?
5. Have we invested in building the capabilities we need in our team, and do we have training in place for our people to develop the skills that will help us reach our decarbonization goals?



Making It Happen

Making Business Do Better for Everyone

Companies can respond to social issues in ways that are good for both business and society.

By Karthik Venkataraman, Cassy Reichert, Andrea Arroyo, and Jenny Davis-Peccoud

At a Glance

- ▶ Businesses are facing many new societal expectations and stakeholder demands, and business leaders increasingly recognize the urgency of social issues.
- ▶ These new expectations and demands create real risks for companies but also present opportunities for new avenues of value creation that deliver economically sustainable business results while also addressing important social concerns.
- ▶ Leading companies are applying a social lens to uncover ways of strengthening their businesses while creating value for employees, customers, suppliers, local communities, and society at large.
- ▶ Learning to see the business through a social lens means evaluating company performance across stakeholders to discover new opportunities for value creation.

Attitudes and expectations about the role of business in society are changing dramatically. The impact of business on the environment (and the consequences of that impact for humanity) are issues of vital importance to many corporate constituencies. Today, however, many more purely social concerns are coming strongly to the fore.

The Visionary CEO's Guide to Sustainability

Among employees, new patterns of working and the growing presence of automation and AI are creating insecurity and anxiety, even as labor markets are sometimes empowering workers to make new demands. More and more customers (particularly millennials and members of Gen Z) now make decisions about what products to buy or not to buy based on companies' performance not only on environmental issues but also on social ones—such as labor standards; human rights; diversity, equity, and inclusion (DEI); health; and product safety. And the public at large increasingly believes that businesses need to do more to address social issues.

Business leaders have clearly gotten the message from these corporate stakeholders. In a Bain survey asking global CEOs what they see as the primary role of their businesses, 60% said either “balancing the needs of all stakeholders” or creating “positive outcomes for society.” And more than 85% of these business leaders called social issues urgent concerns for their companies (see Figure 1).

The reasons for this sense of urgency are not hard to understand. Companies face serious reputational and other risks if they violate the new societal expectations for business (not to mention laws and regulations governing corporate behavior). But fear of adverse consequences is far from the only reason for companies to pay increased attention to the social component of environmental, social, and corporate governance efforts. For as many leading companies are discovering, applying a social

Figure 1: Business leaders increasingly recognize the urgency behind social issues



Source: Bain 'S in ESG' Survey 2022 (N=300)

lens to a business can open up new opportunities for value creation—delivering real, economically sustainable business results while creating substantial benefits for employees, customers, suppliers, local communities, and society at large.

The business case for social

To focus for a moment on just one group of stakeholders and how they are changing expectations for companies on social issues: Customers all over the world are making it clear that they care about the social ramifications of their brand and product choices. While such concerns are not entirely new, they have become quite wide-ranging (see Figure 2).

Most business leaders are well aware of the risks of violating the new social expectations for business. Certainly, they do not want to find their brands and companies attacked on social media or named in the press in damaging contexts. And in the EU, in particular, companies now face risk from new regulatory standards on issues such as human rights in their extended supply chains. But as we found in surveying nearly 300 senior executives, companies that have taken the lead in addressing social issues report that doing so drives better business outcomes in a variety of ways (see Figure 3).

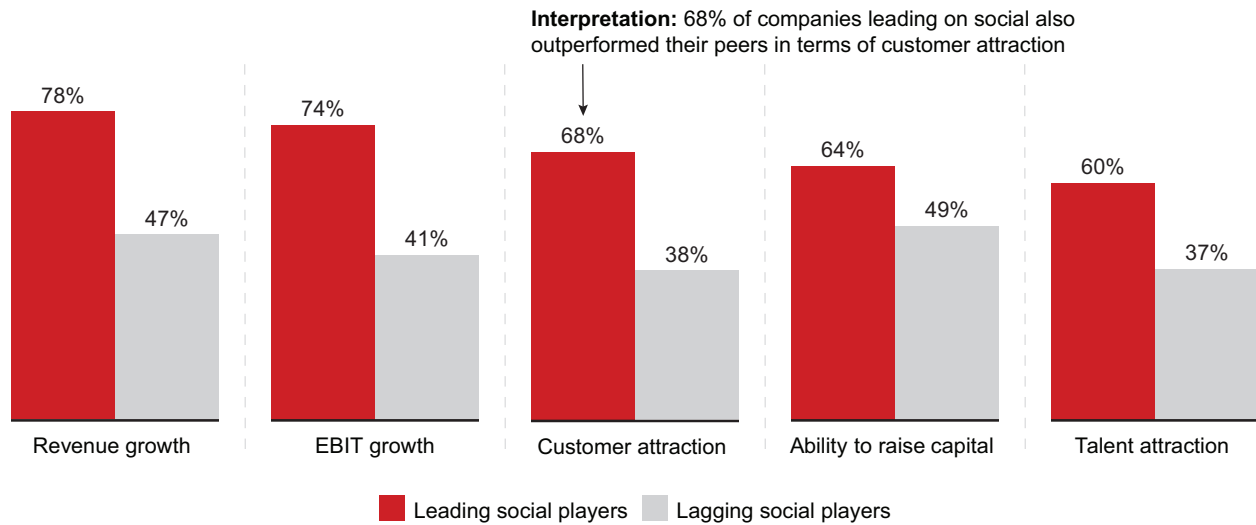
Figure 2: Consumers are increasingly interested in the social dimensions of the products and services that they purchase



Sources: Top Design Firms 2020; Edelman Trust Barometer Special Report 2021; Bain US Sustainability Consumer Fact Base; Bain Consumer Products Elements of Value® June 2021 (UK, France, Netherlands; N=nearly 8,000); Sherlock Communications–Business Corporate Social Responsibility Report in Latin America 2021

Figure 3: Companies say social performance drives better business outcomes in several ways

Percentage of businesses that outperform on business outcomes compared with their industry peers (based on self-assessment)



Notes: Two outcomes are not shown here (risk mitigation and ability to build resilient supply chains); leading social players reported that more than 75% of their corporate social goals were achieved; lagging social players reported that less than 50% of their corporate social goals were achieved
Source: Bain 'S in ESG' Survey 2022 (N=300)

The question, of course, is how exactly to transform action on social issues into economically sustainable business performance. To put it another way, how can companies discover where might lie the previously unrealized opportunities for value creation through an increased focus on social?

Applying a social lens to your business: Four areas of opportunity

As noted above, the category social contains a wide range of issues on which companies today may be expected to respond. The issues for a particular company that will have potential for creating value for particular stakeholders will vary by organization and business context. Any company, however, can begin uncovering the opportunities by applying a social lens to its relationship with four critical groups of stakeholders—namely, local communities, customers, employees, and suppliers—and identifying actions that both address social issues for these stakeholders and deliver results for the business. What follows are examples of such actions, and of companies that have taken them with impressive results.

Improving social and economic conditions in local communities: Communities where companies operate are increasingly critical stakeholders for business. Some companies are looking at these stakeholders through a social lens and discovering how to materially improve conditions in their communities in ways that boost business performance.

- Health insurer Humana's Bold Goal initiative aims to build a sustainable system of working with partners to help address the social determinants of health in local communities. Bold Goal currently targets 20 communities for reduction in the number of unhealthy days that residents experience, addressing social determinants of health such as food insecurity. As part of Bold Goal, Humana has partnered with Walgreens Healthcare Clinics in certain areas to screen patients for food insecurity and offer resources such as healthy food kits and help with federal assistance applications. On average, residents of Bold Goal communities experience fewer unhealthy days than those in non-Bold Goal communities. Fewer unhealthy days for community members mean lower hospitalization rates (increasing cost savings potential for Humana over the long term), and solutions focused on social determinants of health help improve communities along other, more purely social dimensions.
- In 2019, Roger Hochschild, the CEO of Discover Financial Services, which is headquartered in the suburbs of Chicago, made the contrarian decision to locate a new call center in a low-income, majority-Black neighborhood on Chicago's South Side. Hochschild figured that Chatham, a traditionally middle-class neighborhood that had been ravaged by white flight and divestment in the post-World War II era, was a place where an infusion of new jobs could make an enormous difference for an entire community. Today, the call center not only employs more than 500 people (roughly 90% of whom are Black, with the company aiming to have 80% of employees be people who live within five miles of the site) at a starting wage of \$18 per hour but also houses a community center for the neighborhood. Within its first year of operations, the Chatham call center exceeded customer satisfaction goals, performing at an industry-leading level, and it had the highest employee retention rates of all Discover Financial customer care centers across the US.

Applying a social lens to customers and markets can reveal opportunities to create value for whole new customer segments, including in underserved markets.

Identifying new sources of customer value: Applying a social lens to customers and markets can reveal opportunities to create value for whole new customer segments, including in underserved markets. Many new purpose-driven insurgent brands are tapping into this particular opportunity in niche markets, but established players are also doing so with large customer segments.

- In financial services, customers who pay the highest fees are often those least able to afford them. As part of its plan to “democratize access to financial services,” PayPal found a way to both address a social injustice and attract new customers. After deciding not to charge a monthly fee or require a minimum transaction amount, PayPal, in the five years after its 2015 IPO, saw its number of

active user accounts grow from 179 million to 377 million, while average annual transactions per user increased from 27.5 to 40.9. Meanwhile, PayPal's small to medium business lending division, which relies not on credit scores but on a proprietary algorithm to look at a merchant's history on PayPal to determine whether to issue a loan, reached more than \$10 billion in loans to more than 225,000 small businesses in 2019.

- In retail, Bodega Aurrerá, known for offering the lowest prices possible to customers, targets low-income consumers in Mexico. Established as a chain in 1970 and later acquired by Walmart, Bodega Aurrerá has multiple formats that help it serve both small rural locations as well as lower-income urban areas. Bodega Aurrerá stores have been Walmart Mexico's main vehicle for growth, accounting for more than 90% of new store openings since 2006. The company's brand symbol—Mamá Lucha, a cartoon character who battles high prices—is widely recognized in the market. Bodega Aurrerá ranked as the third most valuable brand in Mexico in 2023, with a \$6.2 billion brand value, behind only Telcel (telecommunications) and Corona beer.

70% of employees are likely to change jobs for a company known to invest in employee learning and development, making investment in upskilling or reskilling a way for businesses to create new opportunities for lower-skilled, lower-paid workers while future-proofing their own talent pools.

Investing in current and future workforces: Given the challenges companies now face in attracting and retaining the right talent, businesses need to shift from being talent takers to talent makers. And making this shift can go hand in hand with pursuing a social agenda for talent. Consider, for example, that 70% of employees are likely to change jobs for a company known to invest in employee learning and development, making investment in upskilling or reskilling a way for businesses to create new opportunities for lower-skilled, lower-paid workers while future-proofing their own talent pools. This is an especially acute issue for energy companies facing the implications of a just transition to green energy for their employees.

- Enel, the second-largest power company in the world by revenue, is reskilling and redeploying workers in coal-fired power plants. Forty-five percent of Enel employees who left coal-fired plants in 2022 attended upskilling and reskilling programs (about 90 hours per employee) and have been redeployed. Reskilling employees is part of Enel's public commitment to making the transition to a greener economy “as equitable and inclusive as possible ... [by] creating opportunities for decent work and ensuring that no one is left behind.”

Other companies are applying a talent maker lens to address acute talent needs while also pursuing DEI goals.

- To tackle the pilot shortage in the airline industry, United Airlines launched its own pilot academy, the United Aviate Academy, in 2022, with a goal of training 5,000 new pilots by 2030 (part of a long-term pilot recruitment strategy of adding at least 10,000 pilots by the end of 2029). The flight deck in the airline industry has historically been a white male preserve, but in the academy's first class, 80% of students are women or from underrepresented racial or ethnic groups.

Besides being subject to increased stakeholder scrutiny on issues such as trade practices and human rights, supply chains now face operational disruptions from a variety of factors.

Enhancing supply chain resilience by building socially responsible supplier relationships: Besides being subject to increased stakeholder scrutiny on issues such as trade practices and human rights, supply chains now face operational disruptions from a variety of factors, including the recent pandemic, war, political unrest, and global and regional economic shifts. By examining their supply chains through a social lens, companies can work effectively with suppliers to ensure fair and equitable practices while also making their end-to-end supply chains more resilient.

- Peet's "Las Hermanas" coffee is named for an all-women's cooperative that grows and mills its own coffee in the highlands of Nicaragua. To meet Peet's standards, the women of Las Hermanas invest heavily in training and education, operating their own cupping (quality control) lab to monitor all aspects of production and cup quality. As a result of Peet's yearly purchases, these producers have been able to secure loans and obtain additional low-interest, pre-harvest financing, helping the cooperative to progress from subsistence farming to economic sustainability. Meanwhile, Peet's has differentiated itself in the marketplace with several environmental certifications as well as a direct trade program in which it collaborates with the farmers from whom it buys on community projects in their local areas.
- Olam, the Singapore-listed food and agribusiness company, sources from many smallholders across multiple supply chains and geographies whose income from crop and livestock production can fail to cover basic family needs. One of Olam's many initiatives to help such farmers increase their incomes from farming is Olam Direct, a smartphone app that enables farmers to sell directly to Olam. The farmers get better prices as well as access to digital content on topics such as weather forecasting and planting strategies, pest alerts, and ongoing training to improve productivity and sustainability. More than 90,000 farmers across 12 countries are registered users of Olam Direct.

Getting started

Learning to apply a social lens to a company's many activities and stakeholders, not just to avoid risks but to uncover new opportunities for value creation, can seem daunting. It requires taking a genuinely fresh look both inside and outside the organization to determine where a company may have had blind spots and thinking creatively about social issues in terms not just of obligations but of opportunities. The important thing, however, is to start somewhere, keeping in mind that attending to social concerns involving one group of stakeholders can have beneficial spillover effects with others—for example, as when upskilling employees in changing industries helps keep jobs in communities that depend on them.

To assess where you are starting from, we have compiled a checklist of questions that business leaders can ask regarding the four groups of stakeholders on which we have mainly focused.

- **Community:** Do the communities we do business in see us as a positive force? If our business doubled (or if it disappeared), how would these communities assess the gains (or loss)?
- **Customers:** Who does not have easy access to our products or services? How might we expand our offerings to attract new, often overlooked customer groups with economically viable value propositions?
- **Employees:** What can we do to become a talent maker vs. a talent taker to create opportunities for employees while developing the pipeline we need for long-term business growth?
- **Suppliers:** How equipped are my suppliers to meet new criteria for socially responsible practices? Am I doing my part to influence their practices and build resilience in my supply chain?
- **All stakeholders:** Do our communities, customers, employees, and suppliers see us the way we see ourselves? Would they say we are living up to our declared purpose and values?

No matter where these questions take you, they can set you on a path to new and better outcomes for your company, your stakeholders, and society as a whole.



Making It Happen

Organizing for Sustainability

Most companies are way behind on their sustainability goals. Focusing on four things can accelerate progress.

By Sarah Elk, Grégoire Schaub, Sanjay Dhiri, and Junya Ishikawa

At a Glance

- ▶ In a Bain survey, most executives report having a bold sustainability ambition with clear targets, but almost none feel they are on track to achieve them.
- ▶ Based on more than 300 conversations with executives and our work with scores of companies in transition, organizations that are succeeding at sustainability do four things consistently.

Companies have ambitious sustainability targets they are struggling to meet. In our recent global survey of large-company executives, 67% report having a bold sustainability ambition with clear targets across environmental, social, and governance aims, but only 3% feel they are on track to achieve them.

One consistent reason: Companies have not mobilized the core of their business to realize these sustainability ambitions. Instead, sustainability targets are set without input from the business units tasked with leading change. As a result, the businesses don't feel they own the problem, leaving promising ideas withering from lack of support and slowing progress overall. A minority of leaders—fewer than 25%—believe sustainability is well integrated into their business today, our research found. It's not surprising that 36% report being far below their expected level of progress on these issues.

With the right focus, however, companies can construct the operating model needed to advance a more sustainable future. This starts with embracing a new mindset. Today, many companies treat sustainability only as a constraint, something they have to do. They can't expect to achieve their ambitions if they don't see that sustainability is an opportunity to create value as well.

Based on more than 300 conversations with executives on this topic and our experience working with scores of companies in transition, organizations that are succeeding at sustainability do four things worth emulating.

Companies need to translate their sustainability ambitions into concrete, discrete goals mapped to specific business operations.

1. Break down ambitions into a portfolio of business outcomes

Companies need to translate their sustainability ambitions into concrete, discrete goals mapped to specific business operations. This involves having challenging conversations and being open to setting multiyear goals, even when the solution or how it will be realized is not yet clear. Testing strategies to achieve these outcomes, and learning from those tests, is the only way to reach your true objective.

CEO Doug McMillon describes Walmart's ambition as going "beyond sustainability to become a regenerative company dedicated to placing nature and humanity at the center of our business practices." To get there, Walmart engages in challenging dialogues about business outcomes, considering the full implications of carbon reduction for refrigeration, for example, or what it means for the transport of goods to stores and in the last mile to customer homes, and what moving toward zero waste will mean for operations. The approach has helped Walmart reduce or avoid more than 750 million metric tons of emissions since 2017.

Chemicals and materials company Solvay has similarly focused its sustainability ambition on "climate, resources, and better life" and translated that into a roadmap of business outcomes. These include boosting energy efficiency and process electrification, increasing green power supplies across plants, reducing pressure on sites' biodiversity, lowering water intake, and more. As a former global business unit president, the company's chief sustainability officer, Pascal Chalvon Demersay, brings a business lens to sustainability. By systematically determining the environmental impact of all products and weaving sustainability goals throughout the organization, Solvay has reduced its direct emissions by 19% and its biodiversity pressure by 28% since 2018.

2. Seek out opportunities that benefit multiple stakeholders

It's important that everyone working on new sustainability opportunities consider their broadest potential value to a variety of stakeholders.

A plethora of independent rating agencies now track the value companies generate for individual stakeholder groups and the complex relationships among them—data companies can use to design a strategy that delivers mutual benefits for all. (For more on this, see “Building a Data-Based Stakeholder Strategy” in this report.)

In many situations, improving sustainability will require trade-offs among stakeholders. In the field of climate policy, frameworks and protocols that will help stakeholders share knowledge and analyze those trade-offs are being developed.

Efforts are most likely to benefit multiple stakeholders when that has been a goal from the start. Walmart's sustainability team and business leaders regularly brainstorm how its efforts can help multiple stakeholders. When they thought about building electric vehicle infrastructure to reduce emissions in the transport of goods from stores and fulfillment centers to homes, they also considered the value that could bring to consumers, associates, and communities. In April, the retailer, which has storefronts within 10 miles of 90% of Americans, announced it would be building a low-cost EV fast-charging network at locations coast to coast, easing concerns about access to recharging and lowering transportation costs, while creating another opportunity for customers to shop—in this case, while recharging.

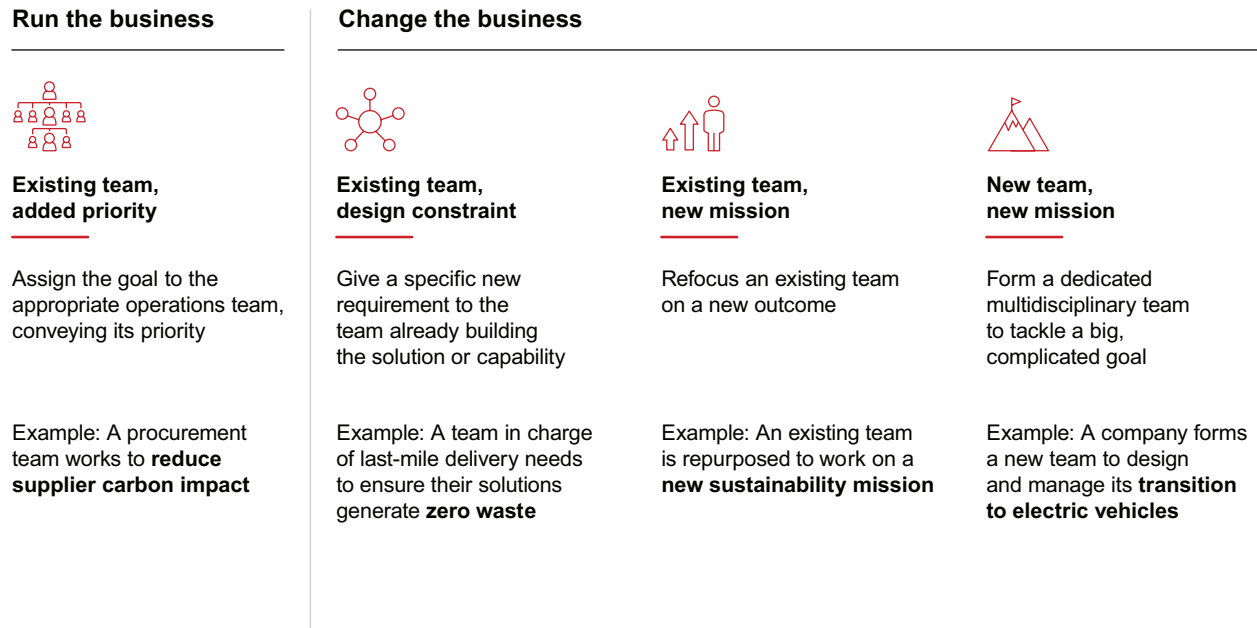
Companies accelerating toward their sustainability ambitions
dedicate teams to reimagine and then test potential new solutions.

3. Dedicate teams to develop new solutions

While some sustainability activities can be delegated and cascaded directly to the leaders and teams already running the business, others require a more fundamental change to the business. For these, the traditional task force of people working part-time on a project basis is simply insufficient. Companies accelerating toward their sustainability ambitions dedicate teams to reimagine and then test potential new solutions.

Importantly, they match the team to the work. Depending on the type of goal, a new, dedicated multi-disciplinary team might need to be launched, or it might be given to an existing team (see *Figure 1*). In either case, the team must be dedicated to the task in order to efficiently develop quality solutions.

Figure 1: Match the sustainability goal to the right team



Source: Bain & Company

4. Build a system to accelerate scaling good solutions

At any given time, Walmart has hundreds of tests running. Feedback loops provide near real-time identification of defects by associates and customers. Solutions that have been scaled and are being optimized are discussed in run-the-business operations meetings, while those in testing are discussed in biweekly transformation meetings. If teams need help between meetings, mechanisms exist to remove roadblocks and get them the resources they need to move as fast as possible. With sustainability outcomes built into the teams, sustainability goals benefit naturally from this well-tuned innovation engine.

The ability to scale their best new ideas, whether on sustainability or any other topic, is a hallmark of flexible organizations. This requires:

- **A unit of scaling.** This might be a store, a customer segment, a product, or a sales territory. It might be two units, five units, or the entire company.
- **A defined release cycle.** How often can customers, employees, suppliers, or other stakeholders expect to receive changes? Three times a year? Four?

- **Feedback loops.** When change is repeatable, good communication helps address defects rapidly.
- **Transparent roadmaps.** People want to know what might come next.

Impact

By adopting these practices, companies ensure that sustainability isn't something being done on the side but is truly part of the business.

Solvay's business leaders see sustainability as a way of mitigating risk and driving lasting value creation, so they build the business case for change on that basis. When they evaluate the business value of any effort, they do so with a carbon price of 100 euros per metric ton incorporated. They also screen for water use, waste valorization, and other ESG adjustments when considering all capital expenditures and M&A decisions. Performance on sustainability impacts 15% of the yearly bonus of all managers. This is all part of a growth strategy made possible by the company's operating model, which includes four sustainable platforms: renewable materials and biotechnology, batteries, green hydrogen, and thermoplastic composites.

To understand how well their company is positioned today, CEOs can start by asking their teams a few high-gain questions:

- Do our middle managers own specific sustainability goals?
- Have we dedicated certain teams to sustainability innovation, to developing new solutions?
- Do our employees raise sustainability ideas that could become new sources of value?
- How could a repeatable model for scaling change accelerate our path to sustainability?



Making It Happen

A Talent Strategy for Sustainability: Skills Matter, but Mindset Is Everything

To tackle new problems and opportunities, companies will need to not only help employees develop new skills but also focus on learning and collaboration.

By Sarah Elk, Julie Coffman, Tracy Thurkow, and John Hazan

At a Glance

- ▶ Addressing sustainability's challenges will require a combination of smart upskilling and cultivating a learning mindset.
- ▶ In a Bain survey, 63% of respondents said different skills and behaviors will be needed for their employer to meet its ESG ambition, but only 45% of nonmanagers said they have the right reskilling opportunities to enable internal mobility.
- ▶ By asking themselves a short series of questions, CEOs can learn if they exhibit the five key behaviors of exceptional sustainability leaders.

Martin Brudermüller, CEO of chemicals company BASF, perfectly captured the challenge organizations face as they look to accelerate their sustainability transformation. “People like to keep repeating what they know how to do and what has proven to work. That’s what makes it so difficult to accelerate the pace,” Brudermüller has told Bain. “We need a shift in mentality, not only in our organization but in our whole ecosystem, in supply chains and partner companies.”

As the world recognizes the urgency of sustainability, and as environmental and social considerations become a driving force behind business transformation—alongside artificial intelligence, global supply chain disruption, and other factors—a simultaneous shift is underway in the talent landscape. The skills individuals need are changing. This includes both the hard skills required by sustainability-focused operations (by electrification, for example, or chemical recycling) and the softer skills almost every company will need (in areas like inclusion and complex stakeholder engagement).

“If you want sustainability, you need people all across the organization to share and live by these values. This collective dynamic is the key to success.”

—CEO, consumer goods company, Netherlands

Building a skills-based approach to talent management begins to create a workforce fit for a sustainable enterprise. But the true game changer is shifting the mindset that individuals and organizations have toward their talent and each other. Companies working toward a sustainable future must embrace an opportunity mindset, prudent risk-taking, and collaboration within and beyond the organization's walls.

New skills for sustainability

The instinct of many CEOs is to prioritize external hiring to address all skill gaps, including sustainability skill gaps.

In an August 2023 Bain & Company survey of more than 4,700 people in nine major economies, 63% of respondents felt that different skills and behaviors would be required for their company to execute on its ESG ambition or strategy. Yet only 45% of nonmanagers said their employer offers the reskilling and upskilling opportunities that would enable internal mobility.

Another Bain survey found that a majority of business leaders—some 75%—believe they have not embedded sustainability well into their business. There are times when hiring new, experienced talent will be necessary to address that, but to increase workforce flexibility and capability over time, turning people over simply cannot be the primary approach. The magnitude of the skills change is too great and too broad-based, and the competition for scarce talent too great. Beyond an individual corporation, stable employment brings valuable economic and societal benefits, contributing to economic growth, supporting families, and strengthening communities.



A talent system that can effectively develop key hard and soft sustainability skills is:

- **Built on a deep understanding of the people already in the building.** New technology and AI for skills inferencing and skills management can be embedded thoughtfully in talent management to ensure people aren't defined only by their current role or by what someone remembers about them.
- **Focused on reskilling.** By investing to upskill and develop existing employees, programs like IBM's New-Collar initiative send a clear message to employees that the company values their contributions and is keen to support their career growth. These programs also ensure companies retain the ability to tap into the deep expertise and unique credibility of long-tenured employees to lead change.
- **Flexible and inclusive.** Sustainability skills are evolving quickly, and predicting future needs is next to impossible. Companies that can shift resources across pools of work or tap into flexible talent sources can better manage demand variability and more readily access skills outside their core expertise. When managed ethically, flexibility can provide employment opportunities and enhanced livelihoods for those who might not fit into traditional employment categories, such as parents who need flexible hours, people with disabilities, or those living in areas with fewer traditional job opportunities. An emphasis on building an inclusive work environment can help people from all backgrounds feel a stronger sense of belonging, allowing them to perform at the top of their capabilities.

Long-established approaches to talent planning—a headcount forecast by division and function with some growth allotment—no longer suffice. Businesses must shift to being talent makers as opposed to talent takers, and an inclusive, skills-based approach is required to make that happen.

The mindset imperative

Answers won't be found in textbooks, from gurus, or from benchmarks; they will emerge from innovation, from testing and learning, and from pooling knowledge, experience, and expertise in ways we can't totally plan for. It's no longer enough to count on "knowing" what to do; we have to lean in to "learning" what to do. Making this shift is the essence of the mindset imperative.

At Bain, we are committed to cultivating a growth mindset in our team, and that is why we have partnered with 12 world-class universities across the globe, including MIT, HEC Paris, and Melbourne Business School, to upskill our employees on ESG. To date, our consultants have completed over 17,000 hours of ESG training through the program, which has deepened their capabilities while also reinforcing the importance of learning and collaboration.

"Your employees care about ESG/sustainability, and it is becoming more critical for retention and engagement."

—CEO, hospitality company, US

Historically, leaders have been most comfortable delegating to and empowering people they trust are the most capable, often defined by domain expertise. Have a tricky supply chain sustainability problem? Get the best supply chain expert on it. But with skill sets changing as fast as they are, domain expertise has a shorter half-life. In addition to people who know supply chains, we need people who embrace innovation and are great learners.

Some leaders try to manage sustainability in the same way they oversee business as usual, and it doesn't work. In fact, it's more likely to stifle innovation, along with the critical trust and collaboration needed inside the organization and across the value chain. Building stronger, skills-based talent management will help a company remain competitive, but it's not sufficient to accelerate the innovation and collaboration sustainability requires; leaders must believe their teams are capable of more, and they must actively communicate and demonstrate that trust to their teams.

Leaders should, first, place bets on people who are willing and capable of learning and then remove risk from the learning process by really embracing testing and learning (and failing) at speed, clearing roadblocks, celebrating progress over perfection, and stopping projects clearly when needed.

The CEO of a large, multinational consumer products company was giving out innovation awards. After the official program concluded, the CEO went up to the leader of the team that won the flagship innovation award to learn more about his experience. The team leader elaborated at length about the

multitude of roadblocks that had gotten in the way and the unwavering level of personal determination it took to succeed. In essence, the team leader said that innovation happened *despite* the culture, not because of it.

This story of innovation adversity is not unique. Leaders must create better conditions and shape culture for sustainability to succeed. Beyond launching teams with clear missions and shared goals, leaders need to shift their own mindsets and behaviors. They must get fundamentally comfortable with not knowing and excited by what the organization is learning and how that's being used. This shifts how they engage with people and how they spend their time.

Becoming a great employer

Despite almost every CEO saying they have a talent problem, few companies have defined what it means to be a great employer. In our recent survey, 44% of respondents said it is easier to find a better opportunity outside of their company than in it. The time has come to redefine what it means to be a great employer. CEOs need to believe in the potential of their people, give them opportunity, and enable innovation. Companies that wait for the right talent to arrive in order to make progress on sustainability risk making none.

44%

of respondents believe it would be easier to find a better job outside their company than apply internally



Are you displaying these five critical behaviors of sustainability leaders?

1. **Authentic relationships.** To create trust and support risk-taking, leaders must invest time up front in deeply understanding what matters both to employees and to ecosystem partners. Strong relationships and inclusive leadership practices make it possible to challenge ideas and push thinking. They are the foundation for developing new solutions.

Question: For the most important change you are leading, how deeply connected are you to the team developing the solution? And to the leaders who scale it in operations?

2. **Curiosity.** Seeking new information and being open to trying new solutions is a core aspect of all innovation, sustainability included. Leaders who display this trait don't assume they have the answers; they collaboratively develop hypotheses and then test them.

Question: What new solutions are you testing right now?

3. **Persuadability.** To gain speed, leaders must be willing to change their mind when presented with new information. The vast majority of decisions can be easily changed without significant consequences, so there's little downside in making decisions quickly, but leaders must be open to changing their mind when they are wrong.

Question: When was the last time that, given new information, you openly changed your position in front of your team?

4. **Delegation.** Even when it feels a bit risky, leaders must be able to delegate to their operational direct reports, freeing themselves to work on hard problems and remove roadblocks for teams devising new solutions. Leaders who do this well don't wait for people to be ready; they make them ready by giving them opportunity. They trust them.

Question: In your last business review, sales meeting, or other operational milestone, could someone on your team have taken a bigger role? Do you have your successor ready? Are you spending enough time on changing your business vs. running it?

5. **Enterprise-first.** Leaders focused on accelerating toward big goals treat resources as an enterprise asset even when it hurts their own teams. A leader may lose an A-level player or operating budget to a higher priority yet remain resilient and positive. This feels least risky when working for a loyal employer, and companies that are filled with these types of leaders benefit from the way resources moving quickly to their best use unleashes progress.

Question: The last time someone wanted to move a resource from your team, how did you respond?

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