Global C-suite Series
25th Edition
The CEO Study

Own your impact

Practical pathways to transformational sustainability

IBM Institute for Business Value

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The IBM Institute for Business Value, in cooperation with Oxford Economics, interviewed 3,000 CEOs from 40+ countries and 28 industries as part of the 25th edition of the IBM C-suite Study series. These conversations focused on executives' perspectives on leadership and business; their changing roles and responsibilities; and sustainability, including how they are addressing challenges, what they see as opportunities, and their visions for the future.

Contents

3,000	40+	28	25th
CEOs surveyed	countries	industries	edition

“Sustainability promotes business, supports the needs of our customers, generates profitability, and contributes to a better world. This is how we see our transformative role.”

Fausto Ribeiro
CEO of Banco do Brasil

Introduction

We've reached an inflection point. For some time, the role of business in sustainability has received steadily increasing attention from companies and their stakeholders. But over the past year, something changed for CEOs worldwide, and sustainability talk turned into action. Continued disruption—including upheaval from the pandemic—has society calling for a new approach to economic activities and business priorities.

Our latest CEO study, drawn from interviews with 3,000 CEOs worldwide, reveals sustainability's dramatic emergence onto the mainstream corporate agenda. For a few, this ascent is validation of long-held beliefs and years of planning. For most CEOs, however, an urgency to act is encountering the reality that turning sustainability aspirations and commitments into measurable results is easier said than done.

Many CEOs accept responsibility for the impact their organizations have on the environment and society. They also feel increasing pressure to act from all manner of stakeholders, many of whom are losing patience, frustrated by what they view as too much talk and too little action. After witnessing a proliferation of corporate sustainability pledges—from water positive and carbon negative to net zero and zero waste—some of these stakeholders are questioning what progress companies are actually making toward these goals.

Our research suggests that most organizations' sustainability commitments reflect a genuine sense of accountability, often combined with the recognition of new opportunities. However, many CEOs tell us they are uncertain how to move forward and achieve meaningful change. Their organizations face roadblocks ranging from difficulty measuring ROI to data and technology challenges. Finding ways to punch through those barriers is crucial. Sustainability is no longer a "nice to have." Companies that ignore the call risk significant impact–financial and otherwise.[1]

The good news is some CEOs have found a path to effective action. They are managing to turn the ideals of sustainability into a reality. Not only are they making real progress toward their sustainability goals, but they are also positioning themselves for strong business performance and growth. What do these CEOs know that their colleagues don't? What are their organizations doing differently?

The answers stem from their approach: These CEOs come at the sustainability challenge with a different mindset. They see opportunity where others see cost. From the strategies they embrace, to the stakeholders they engage, to the digital capabilities they leverage, leading CEOs approach sustainability as an opportunity that can drive growth and positively impact their business.

Some of these successful CEOs are leveraging their sustainability investments to optimize operations by driving efficiencies and improvements. Others view sustainability as an avenue for enterprise transformation, embracing what we call transformational sustainability (see sidebar "Perspective: What is transformational sustainability?"). They embrace digital capabilities and open innovation to combine sustainability performance with better financial outcomes.

In this report, we reveal the pressures, ambiguities, and opportunities CEOs encounter as they respond to the urgent call for sustainability. We also examine their approaches, identify the right tools for success, and offer a set of specific actions tailored to help determine the most appropriate steps for individual organizations.

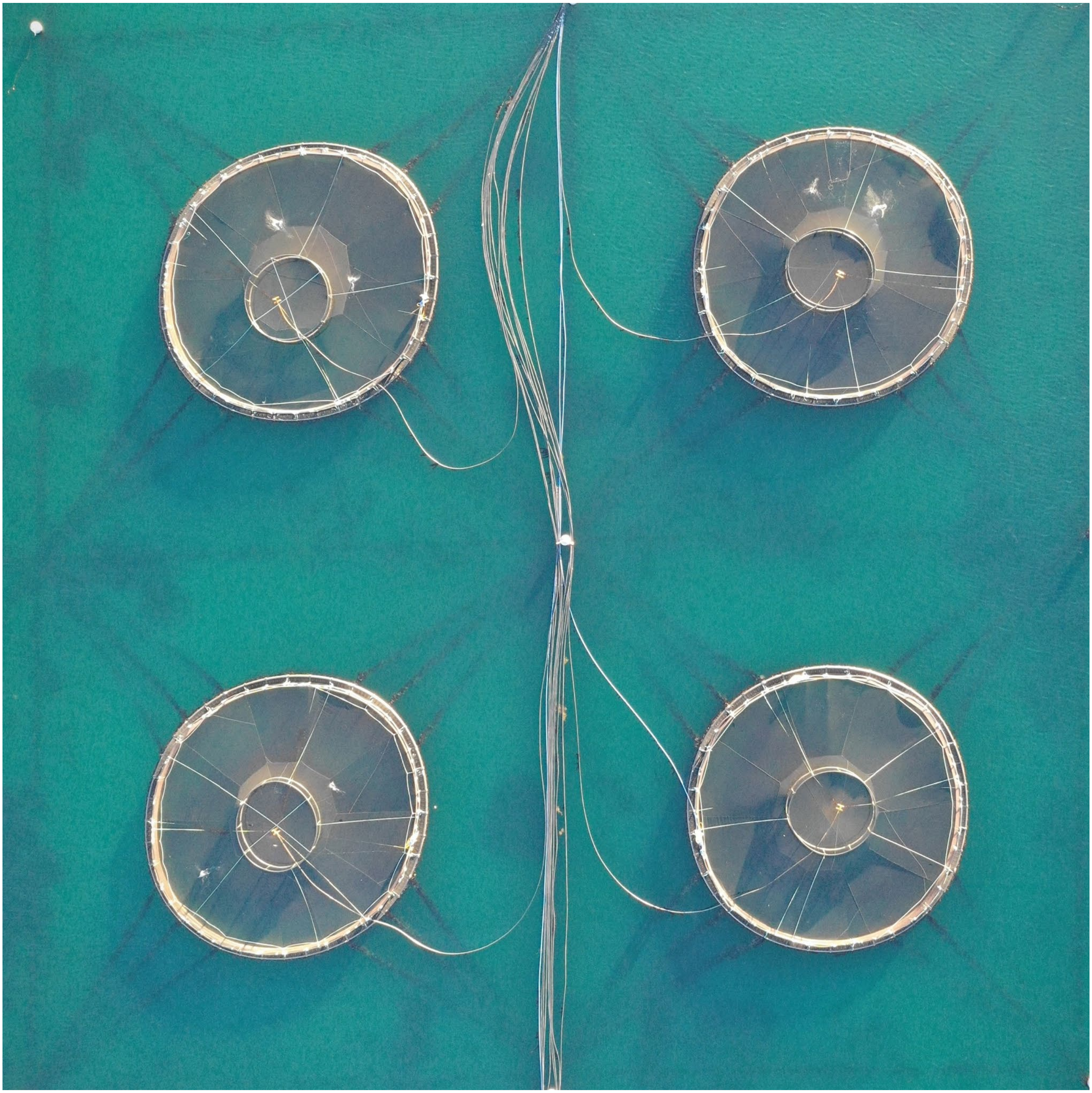
Perspective

What is transformational sustainability?

Transformational sustainability occurs when sustainability becomes an integral part of an organization's business strategy. More than an initiative, sustainability becomes core to the values of the company. Leaders who embrace transformational sustainability recognize the opportunity to reshape major aspects of the enterprise. They view sustainability as a catalyst to define new business models, as well as deliver on community needs. Transformational sustainability embraces digital technologies strategically and operationally to drive sustainability outcomes while expanding economic opportunities.

Transformational sustainability is a continuous process. For some, the concept of sustainability broadens to encompass a wider set of issues like those addressed by The United Nations Sustainable Development Goals (SDGs). Designed to support the creation of a world without poverty, hunger, and disease, the SDGs are meant to promote prosperity, protect the environment, tackle climate change, and improve equity.[2]

Transformational sustainability takes action to solve the world's most pressing problems and promotes profitability in the process. It enhances business value, in part by changing the definition of value and the scope of the beneficiaries considered.



Chapter 1

Sustainability: A business priority—and challenge

Today's CEOs are challenged to address issues outside the typical business purview at an extraordinary scale and level of intensity. Rising societal concerns about the impact of economic activity on the environment have led to urgent calls for more sustainable practices. And recognizing that governments alone cannot successfully tackle the issues, citizens are turning their hopes to the corporate realm.[3]

Many businesses are stepping up as leaders on sustainability and catalysts for change. In fact, as the fastest rising issue on the enterprise agenda, sustainability is now a top corporate focus, just behind customer experience and innovation. Almost half of CEOs say increasing sustainability is one of the highest priorities for their organization in the next 2 to 3 years—up from roughly a third in 2021, an increase of 37% in just a year.

“How do we allocate our financial resources, our people’s time, and our use of physical resources so that we’re creating more value than we are consuming? That gives us a purpose that people get excited about.”

David Kenny
CEO of Nielsen

Different industries face different challenges and opportunities. Meg O’Neill, CEO and Managing Director of Australia-based Woodside, tells us that her organization plays a unique role as an energy company. “First, we are committed to driving our net equity emissions down over time.... Second, our goal is to offer customers products and services that have lower carbon intensity.”

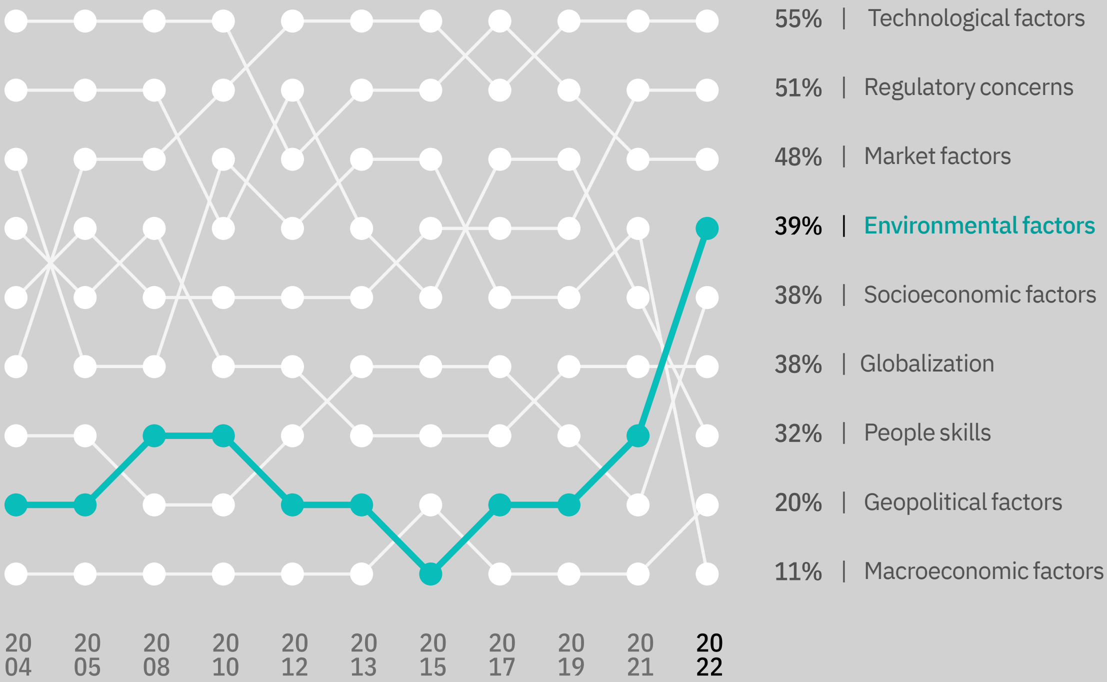
For some organizations, efforts to drive sustainability also support societal economic development. Fabián Hernández, CEO of Movistar Colombia, a telecommunications operator, says implementing fiber networks is key, “not only for the green economy, but also for the contribution it makes to the national GDP.”

Since 2004, we have asked CEOs about external forces influencing their organizations. Until now, environmental factors have consistently been near–or at–the bottom of the list. Our latest research reveals that sustainability has become top of mind for many CEOs–jumping up 5 spots since 2015, matching technology’s jump from 2004–2012 as the largest and fastest increase since we started asking the question (see Figure 1). Technological factors remain in the top spot for the third year in a row, while regulatory concerns, which likely include changing sustainability requirements, take the #2 spot.

Figure 1

Moving on up

Historically, CEOs have ranked environmental issues low on the list of forces impacting the enterprise–until now.



Q. What are the most important external forces that will impact your enterprise over the next 2–3 years?

The intensified focus on environmental issues, along with uncertainty and rising pressures, has pushed sustainability to the top of the CEO list of challenges. In fact, it is the most frequently cited challenge in 2022, ahead of other factors like regulation, cyber security, technical infrastructure, and supply chain disruption (see Figure 2). The compounding effects of these challenges have snowballed, creating a complex context for CEOs to navigate.

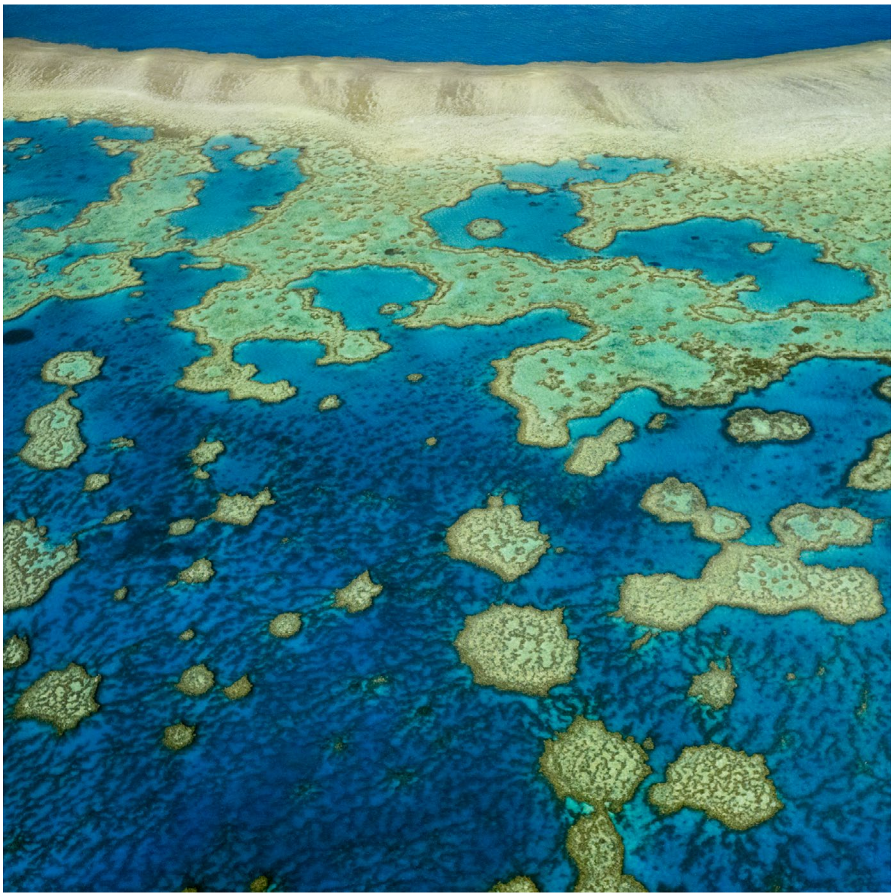
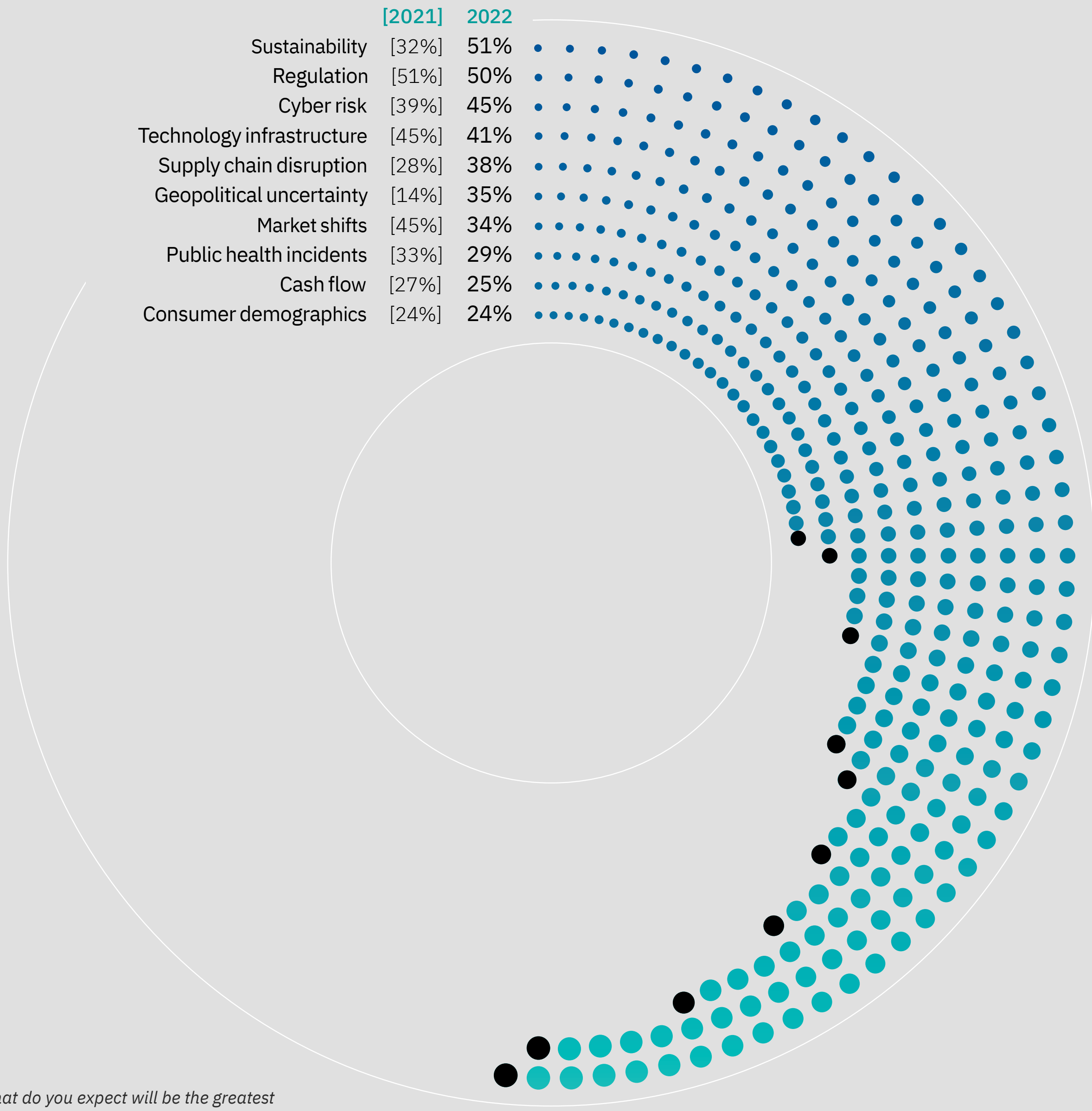


Figure 2

Pressure builds

With CEOs feeling increased pressure to act, sustainability is now ranked as their greatest organizational challenge.



***Q.** What do you expect will be the greatest challenges for your organization over the next 2–3 years?*

A collective call to action

The pressure CEOs face to tackle sustainability has increased dramatically in less than a decade. As Juan Carlos Mora Uribe, CEO of Bancolombia, a financial services institution, points out, “In 2015, when the UN launched the goals for sustainable development, very few countries and organizations paid attention to it. Today, sustainability is something that all the organization stakeholders–collaborators, shareholders, customers–are demanding.”

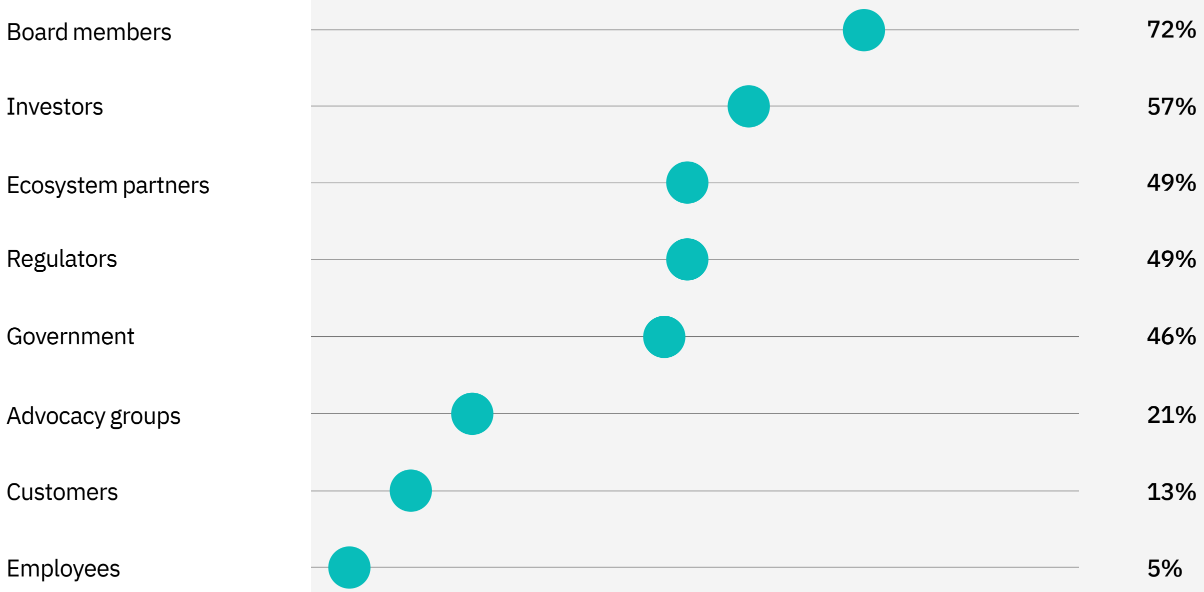
Certainly, consumers and employees are taking a stand. Roughly half (49%) of global consumers paid a premium for products branded as sustainable in the last 12 months, while 7 in 10 employees say they are more likely to stay with an environmentally conscious employer.[4] CEOs recognize and are in tune with these changing demands (see sidebar “Perspective: CEOs hear the call”).

The pressure felt most acutely by CEOs, however, comes not from consumers and employees, but from the stakeholders that they tend to deal with most directly: board members, investors, and partners (see Figure 3). Far from suggesting that CEOs are oblivious to the demands of consumers and employees, our study reveals the heavy pressure CEOs experience from all sides to pursue sustainability. Their challenge is to respond with meaningful, authentic, impactful action.

Figure 3

Feeling the heat

CEOs say boards and investors—among other stakeholders—are demanding greater transparency around sustainability.



Q. To what extent do the following demand greater transparency around sustainability from your organization? (Percentages reflect "great" or "very great" responses.)

Perspective

CEOs hear the call

CEOs tell us customers and employees are serious about sustainability–and expect results. Younger generations especially have high expectations. They are also astute and don't take kindly to greenwashing. As Guy Cormier, Chair of the Board, President, and CEO of Desjardins Group, notes, "You can't fake your commitment, especially with your younger employees.... We are at a turning point where people won't accept just a slogan or a message."

Sallie Krawcheck, CEO and Co-founder of Ellevest, an American investment platform and financial literacy program, explains the positive impact this increased demand has for her business. "Things have changed, and it is not necessary to give up returns in order to invest for impact any longer," she says. "Women and millennials are demanding this at every level."

This consumer mandate for sustainability requires looking ahead and, as Marshall Wilmot, President, Retail and CDO of ATCO, a Canadian engineering, logistics, and energy holding company, highlights, keeping up with changing customer values. "We have to be looking around the corner, to make sure that we're ahead of the curve, delivering the right products and services that not only suit our customers' wallets, but also their personal values," he tells us.

The pressure exerted by stakeholders both inside and beyond the organization also reflects a growing recognition that sustainability has the potential to deliver not only societal benefits, but also business advantages. The perception that environmental and social agendas require a tradeoff with improved business outcomes is crumbling. On the contrary, more than 80% of CEOs now expect sustainability investments to produce improved business results within 5 years (see Figure 4).

John Doerr, partner at Kleiner Perkins and author of *Speed & Scale*, emphasizes the extraordinary potential: "The transition from the dirty fossil fuel economy to the new clean energy economy is, I think, the greatest economic opportunity of the next century."[5]

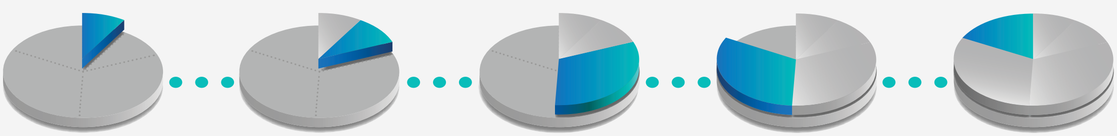
These business results could become part of a perpetual investment cycle, producing cumulative value. "The more we invest in sustainable development projects, the better the benefits, the lower the cost, the larger the scale," says Wu Jing, Deputy General Manager of Sinochem Information Technology Co., Ltd. (China), a provider of computer programming services for the chemicals industry. "It is a virtuous circle that enables good money to expel bad money."

Felipe Nascimento, CEO of MAPFRE Seguros, the Brazilian business of a Spanish multinational insurance company, points out the potential for investments to drive increased momentum around sustainability. "The more investors choose to direct their investments to companies focused on sustainability, the more accelerated the transition will be."

Figure 4

Expecting results

More than 80% of CEOs say sustainability investments will drive better business results in the next 5 years.



9%	10%	32%	32%	17%
They already do	Within 1 year	Within 3 years	Within 5 years	More than 5 years from now

Q. When do you expect your investments in sustainability to produce improved business results?

Answering the call

Recalibrating the relationship between business and society—and making sustainability central to the corporate agenda—requires leadership and buy in, as well as ownership and conviction. 60% of CEOs agree that business leaders must take responsibility for business impact on the environment. And 52% tell us business leaders must take responsibility for business impact on communities.

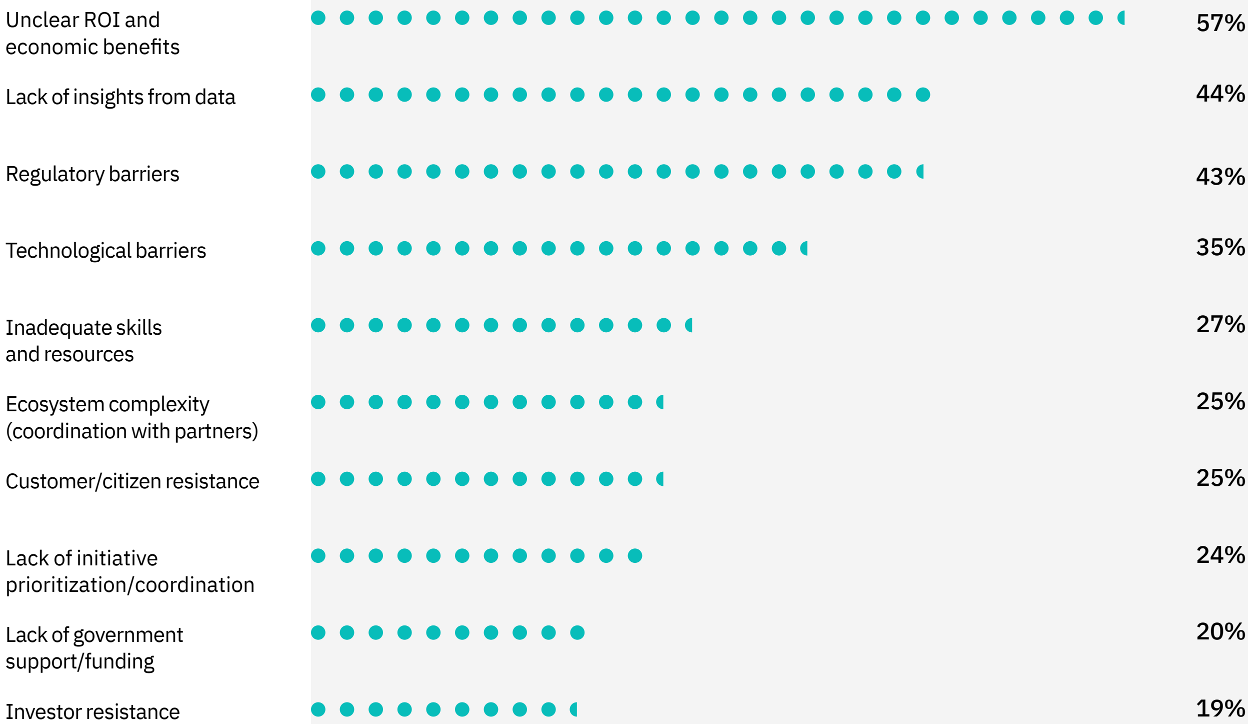
But real progress requires more than taking ownership. The next step is taking action. As organizations map their strategies, sustainability investments have grown: As a percentage of revenue, they have more than doubled over the past 5 years. In terms of actual execution of sustainability initiatives, organizations range from no activity to full implementation across the ecosystem. The majority—72%—are either still piloting or implementing only parts of their strategy. Regardless, CEOs are optimistic about their investments, with 64% expressing confidence that they will achieve their overall targets.

Despite their firm conviction, continued investments, and eagerness to seize opportunities, CEOs are encountering significant obstacles. 57% of CEOs identify difficulty clearly defining and measuring ROI and economic benefits as one of the greatest challenges to achieving sustainability objectives (see Figure 5).

Figure 5

Redefining returns

CEOs rank calculating ROI as their top challenge in achieving sustainability objectives.



Q. What are the biggest challenges for your organization in achieving sustainability objectives?

David Kenny, CEO of Nielsen, an American information, data, and market measurement firm, explains the challenges of resource allocation. “We need the financial systems to appropriately reflect the environmental cost of things we do so we can make the right decision. Ultimately, we have to allocate resources, and that’s hard if the metrics don’t align with the reality.”

Additionally, CEOs identify a lack of insights from data, regulatory barriers, and technological barriers as important obstacles to overcome. And these challenges are intertwined. For example, the ability to extract new insights from data can help organizations better measure sustainability returns. And digital solutions can help break down data silos, enabling new insights and operational improvements that align sustainability objectives with business goals.

Sanjiv Vohra, CEO and President of Security Bank Corporation, a leading universal bank in the Philippines, points to the need for reporting standards. “To accelerate the shift toward sustainability, we need uniform standards for disclosure and financial reporting. There is a plethora of options, and the challenge arises from those different lexicons and standards. To start, the bank has adopted the GRI Sustainability Reporting Standards since 2013 to ensure compliance with global principles in the disclosure of our environmental, social, economic performance, and impact.”

As CEOs juggle these challenges, they face additional tensions. While almost 60% of CEOs feel strong pressure from investors, only a quarter say their sustainability efforts make it easier to raise capital. There are conflicts in accessing talent as well. Another recent IBM Institute for Business Value study found that 69% of consumers say they are more likely to accept a job with an organization they consider to be environmentally sustainable, but only 20% of CEOs tell us their sustainability efforts help them recruit talent.[6]

Finally, CEOs must address the inherent difficulties that come with disrupting the status quo. Sallie Krawcheck of Ellevest equates it with the Innovator’s Dilemma—impacting both business and culture. As she explains, “So, if I switch business practices to sustainability and tell people they can’t do what they used to do, I may get a ‘why would you do that?’ reaction. It’s the Innovator’s Dilemma: What I’m doing is working, but if I switch too fast, it may not.”

Finding the right roadmap is crucial.

"We increasingly see digitalization playing a very positive role in sustainability, whether it is in emission reduction, digital currency, mobile payment, or even the contactless economy era brought by the COVID-19 pandemic."

Wu Jing
Deputy General Manager of Sinochem Information Technology Co., Ltd. | China

Tackling the challenge

An organization's approach to sustainability depends, in large part, on how its CEO views sustainability, both its function and future as part of the organization. Is sustainability a business opportunity that can be achieved through wise investment? Or is it a cost that needs to be managed? Is sustainability meant to become part the organizational DNA, core to its strategy and operations? Or is it a matter of compliance–meeting regulatory requirements while avoiding disruptions?

Asking CEOs to characterize their organizations' sustainability investments revealed clear distinctions across a range of priorities, actions, capabilities, and outcomes. Our analysis identified 4 distinct groups of CEOs. Among these groups, engagement around sustainability ranges between extremes.

On one side, we find the Assessing CEOs, whose organizations have no investments in sustainability, and the Complying CEOs, whose organizations' sustainability investments are made purely to align with industry mandates or regulations. On the other side are the Operational CEOs, who extend their sustainability approaches and investments beyond compliance and into their business, and the Transformational CEOs, who go "all in" on sustainability, with investments and approaches intended to transform the enterprise by building sustainability into its organizational fiber.

As we explore in more depth in Chapter 2, both Transformational and Operational CEOs view sustainability as an opportunity, albeit through 2 different lenses:

– Operational CEOs view sustainability investments as an *opportunity to optimize* their businesses by driving efficiencies and operational improvements.

– Transformational CEOs see sustainability as a *catalyst for fundamental change* and work across the C-suite and with ecosystem partners to reshape the enterprise.

Our 2021 CEO report, “Find your essential,” focused on identifying an organization’s essential differentiator–the one thing that makes it indispensable to its stakeholders.[7] From that perspective, Transformational CEOs make sustainability their “essential,” and they use it to drive competitive advantage. Operational CEOs make their organizations as sustainable and efficient as possible.

Organizations with Assessing and Complying CEOs, on the other hand, need a course correction, as their current roadmaps could lead to a dead end. They need to move beyond simply evaluating or playing regulatory defense and take action. As Guy Cormier of Desjardins Group, says, “Don’t wait to be perfect in everything to embrace sustainability or be more proactive on it.”

Chapter 2

The path to sustainability: From assessing to transforming

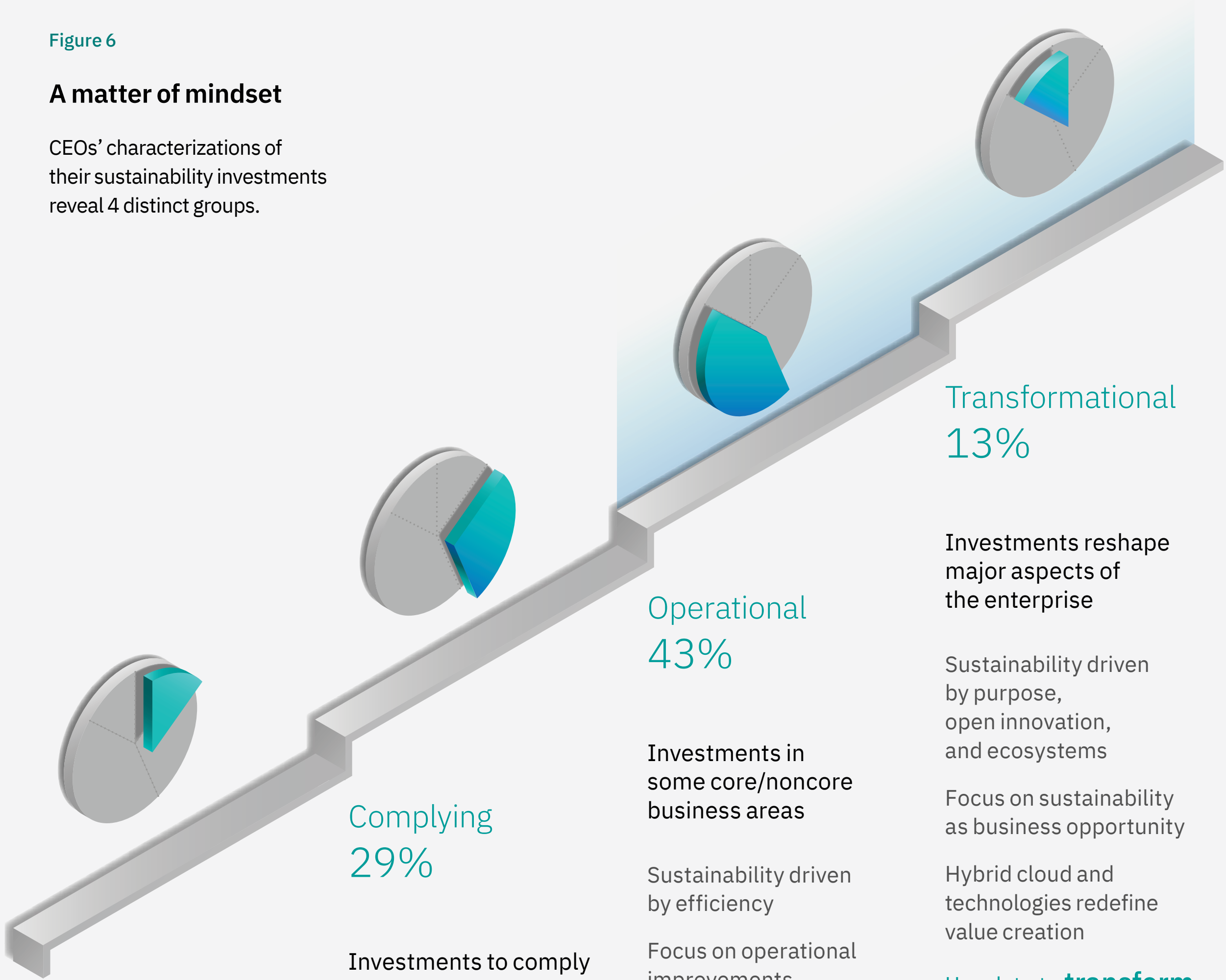
CEOs know achieving sustainability goals is not easy. Yet some are managing to make real progress. What is it about their methods that makes the difference? One obvious differentiator is strategy: Organizations with clearly defined sustainability strategies and committed leaders are better able to navigate changing regulations, along with stakeholder attitudes and expectations.

Like Fausto Ribeiro, CEO of Banco do Brasil, a Brazilian financial services company, Transformational and Operational CEOs see sustainability as a business opportunity, creating and implementing sustainability strategies that permeate the enterprise. He explains, “We have incorporated sustainability into our corporate strategy and, therefore, it is present in the dynamics of our daily lives, with reflection in the business strategy, risk management, and operational plans of our units.”

Figure 6

A matter of mindset

CEOs' characterizations of their sustainability investments reveal 4 distinct groups.



Assessing
15%

No sustainability investment to date

Feel pressure to act around sustainability

Perception of sustainability as a cost

Technology and skills gaps identified as challenges

Complying
29%

Investments to comply with regulations and mandates

Sustainability driven by regulations

Focus on organizational reporting and compliance

Technology used to monitor

Use data to **inform**

Operational
43%

Investments in some core/noncore business areas

Sustainability driven by efficiency

Focus on operational improvements

Smart technologies used to optimize discrete processes

Use data to **optimize**

Transformational
13%

Investments reshape major aspects of the enterprise

Sustainability driven by purpose, open innovation, and ecosystems

Focus on sustainability as business opportunity

Hybrid cloud and technologies redefine value creation

Use data to **transform**

In addition to different strategic approaches to sustainability investments, the 4 CEO archetypes vary in other important ways. Their differences in viewpoints and intent related to sustainability impact how they handle stakeholder engagement and governance, as well as how they leverage technology (see Figure 6). Let's take a deeper look at each archetype:

Assessing CEOs (15%)

Organizations with Assessing CEOs have not yet made any investments in sustainability. While some are exploring options, others have no plans at all. These CEOs consider sustainability a challenge—but not a personal responsibility—and their involvement in sustainability initiatives is limited. They typically have not aligned the organization's sustainability and business strategies. Talent and resource constraints and limited technology maturity add to their sustainability challenges. Fewer than 1 in 5 have implemented digital AI-enabled workflows, and only 15% leverage hybrid cloud.

Complying CEOs (29%)

These CEOs make sustainability investments solely to meet compliance and regulatory requirements. Anticipating few business benefits from their sustainability efforts, they take a reactive approach to most stakeholder influence. Organizations with Complying CEOs view customers, investors, and employees as obstacles rather than enablers in their sustainability pursuits. Only a third leverage hybrid cloud environments, and less than a quarter have implemented AI-enabled workflows. The limited data-driven insights and technology they have are used to monitor progress toward compliance.

Operational CEOs (43%)

Operational CEOs view sustainability as a business optimization opportunity. Focused on operational improvements and efficiencies, they make sustainability investments in core business areas, in addition to regulatory compliance. While almost all have a sustainability strategy in place, the majority do not partner in ecosystems for sustainability. While still relatively new to leveraging hybrid cloud and automated workflows, this group is more inclined to tap into smart technologies and data insights.

Transformational CEOs (13%)

This group defines sustainability investments as revolutionary—a once-in-a-career opportunity to change an organization for the better. Purpose driven, Transformational CEOs build sustainability strategies that incorporate the entire organization. They see sustainability as a business opportunity and embrace it as a personal responsibility. Transformational CEOs support open innovation and engage ecosystem partners to advance sustainability efforts. They have mature digital capabilities and are sophisticated hybrid multicloud users.

What differentiates the Transformational CEO?

Organizations led by Transformational CEOs are far ahead of their peers in sustainability strategy development, implementation, and outcomes, and they're optimistic about future success. With a sense of conviction and responsibility, these leaders approach sustainability as an opportunity. They are much more involved in shaping their organization's sustainability agenda and take personal ownership of their organization's effect on the environment and community (see Figure 7).

For example, Vineet Gautam, CEO of Bestseller India, a fashion retailer, views sustainability as an imperative for his organization. As a result, the company has managed to achieve sustainability objectives while also improving revenue (see sidebar "Bestseller India: Fashioning sustainability with data-driven insights").

Figure 7

Accepting responsibility

Transformational CEOs hold themselves accountable for business impacts on communities and the environment.

Q. To what extent do you agree with the following statements?
(Percentages reflect responses of "agree" or "strongly agree" and "disagree" or "strongly disagree.")

Bestseller India

Fashioning sustainability with data-driven insights

The fashion industry is notorious for wasteful practices, including unsold inventory that ends up in landfills.[8] With a belief that sustainability is a prerequisite for ongoing business success, Mumbai-based Bestseller India wanted to better align design and production with demand. Using an end-to-end approach to accelerate its digital transformation, the company developed the country's first fashion industry AI solution, Fabric.ai. Part of Bestseller India's larger Fashion FWD initiative to drive sustainable fashion, the solution offers data-driven insights to aid in preseason design, planning, production, and forecasting.

Sustainability begins at the design phase, where digital design processes can help minimize waste at the start of the creative process. With Fabric.ai optimized for designers, Bestseller India has a digital platform to help inform more sustainable material choices up front. In addition, access to real-time data allows employees to shift from "gut feelings" to decisions that more accurately align with market demand. Fabric.ai also provides product planners with data-driven perspectives on producing clothing with a smaller environmental footprint. And intelligent workflows for key business processes empower employees to work smarter and use their time more efficiently.

The solution has helped Bestseller India decrease unsold inventory and reduce supply chain costs, while also improving revenue in its top-selling brand.[9]

Andy Katz-Mayfield, CEO of Harry's, an American personal care products manufacturer, agrees with the importance of accountability, saying, "All of us see and experience every day the real-world impact of climate change and the relative urgency of addressing it. It's our responsibility to do our part."

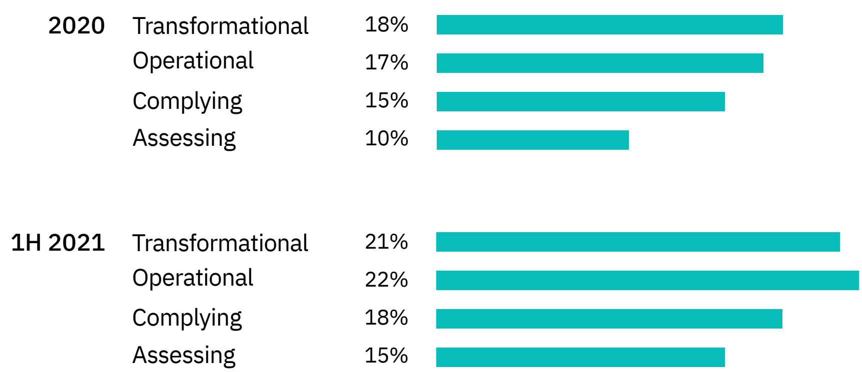
While more than 4 out of 5 Transformational CEOs say business leaders should publicly take positions on social issues affecting employees and customers, only 16% of Assessing CEOs agree. And 32% of the latter say they disagree, which could explain why their organizations haven't made any investments in sustainability.

The Transformational CEOs' commitment to sustainability lends itself to outperformance: Their organizations achieve better sustainability outcomes and better business performance, with higher average operating margins and EBITDA—even amid disruptive market dynamics (see Figure 8). The Operational CEOs also significantly outperform the Assessing and Complying CEOs on these performance measures, suggesting theirs is a viable path for CEOs that do not see the Transformational path as right for their organization.

Figure 8

Early returns

Transformational and Operational CEOs achieve higher profit margins (EBITDA as a % of revenue).



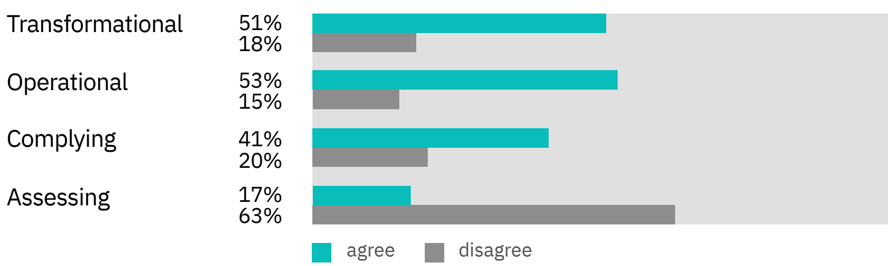
Transformational CEOs recognize that disruption requires new ways of doing things, specifically performance measures. 53% say that achieving sustainability targets requires recalibrating how they measure and report performance. 51% expect their sustainability investments to accelerate business growth (see Figure 9).

Optimism among Transformational CEOs signals confidence in their strategy. According to Andy Katz-Mayfield of Harry's, "In some cases, you have to take a leap of faith, and in some cases, you do things that maybe aren't going to pay off in 2 years, but in 5 or 10 years."

Figure 9

Seizing opportunity

More than half of Transformational and Operational CEOs expect sustainability to accelerate growth.



Q. To what extent do you agree with the following statements: Our sustainability investments will accelerate business growth. (Percentages represent "somewhat agree" or "strongly agree" and "somewhat disagree" or "strongly disagree" responses.)

Chapter 3

The transformational edge: Leadership, open innovation, and technology

As Transformational CEOs remodel their organizations from the inside out, they distinguish themselves across 3 key areas: leadership, ecosystem engagement and innovation, and technological maturity.

Cultivating the right team

Nearly 70% of all CEOs say they are directly involved in defining their organization's sustainability strategy. For Transformational CEOs, the commitment is almost unanimous, with 92% playing a leading role.

As Transformational CEOs embed sustainability throughout their organization, they involve a broader and deeper set of senior executives than their counterparts. Rather than assign sustainability to a single function, Transformational CEOs include operations, finance, and technology, along with dedicated sustainability and transformation leaders (see Figure 10). The more frequent inclusion of Chief Information Officers (CIOs) and Chief Technology Officers (CTOs) reinforces the pivotal role of technology in making sustainability real. CEOs' engagement of leaders across functional areas demonstrates a commitment to integrate sustainability as part of enterprise-wide transformation, rather than an isolated project.

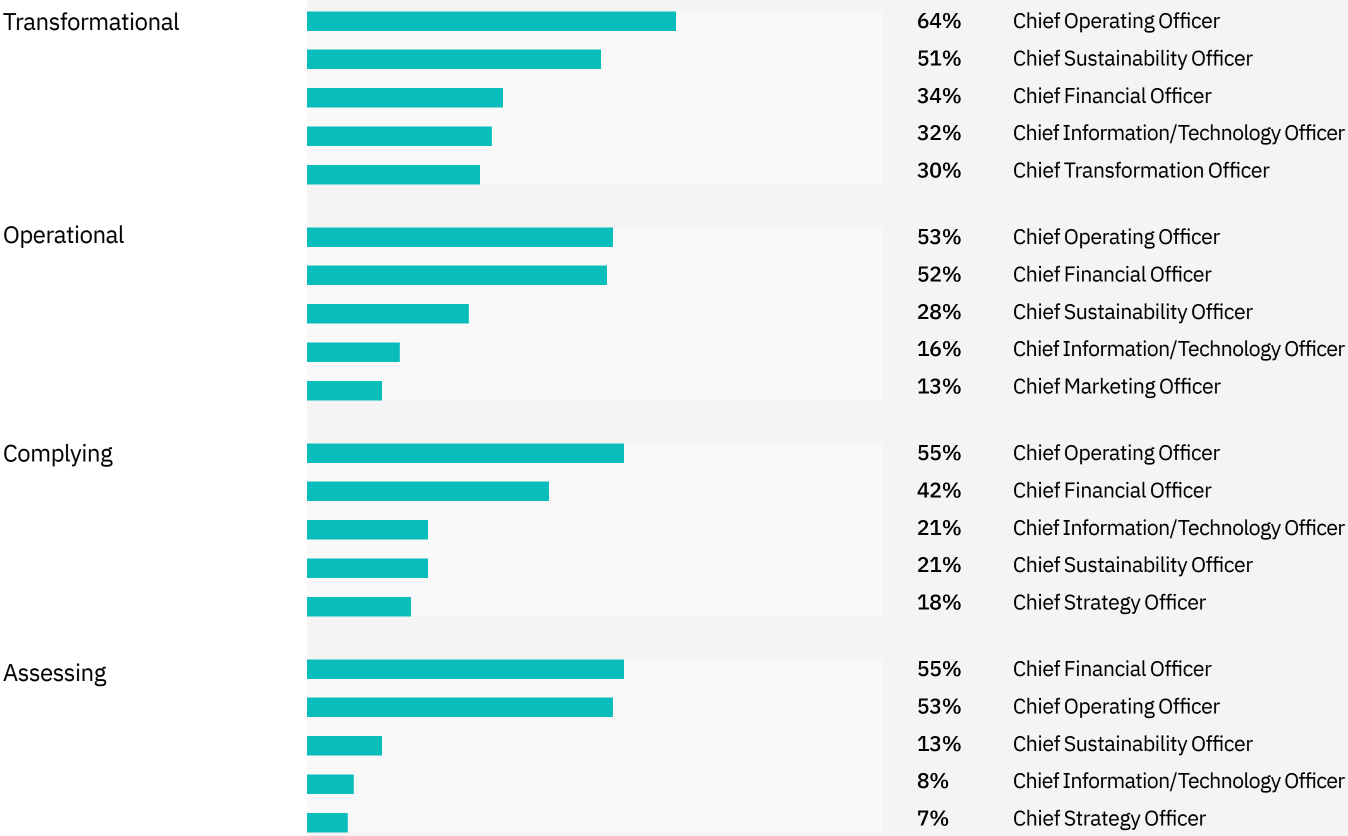
Janet Hayes, CEO of Crate & Barrel, describes the breadth of effort, "We've designated a task force, spanning all departments.... We've looked at product with more sustainable eyes. We've taken a look at how we're building our buildings. We have to approach the entire supply chain."

Transformational CEOs are not just driving sustainability from the top down, but also taking tangible steps to bring along their entire workforce. They support implementation of their sustainability initiatives with a structured change management plan more than twice as often as other CEOs. And while the majority of Transformational CEOs are confident that clear sustainability objectives motivate employees, many are using compensation incentives to drive accountability deeper into their organizations. Almost 40% are already linking nonexecutive compensation to specific sustainability measures.

Figure 10

It takes a team

Transformational CEOs engage a wider variety of executives in executing their sustainability initiatives.



Q. Who from your C-suite will play the most crucial role in executing enterprise sustainability initiatives over the next 2–3 years?

Partnering for innovation

Ecosystem partnerships are another area where we see significant differentiation among sustainability CEO archetypes. Solving the world's most vexing social and environmental problems demands strategic collaboration and innovative approaches within and across industries. Xun Feng Liu, Chairman of Shanghai Huayi Group, a Chinese chemical products and services manufacturer, points out that sustainability cannot be completed by one company. Rather, "It is up to everyone to collaborate and strengthen the synergy of global partners."

Transformational CEOs engage broadly with their ecosystems—almost 70% align with partners to jointly report sustainability measures. 50% have established entirely new business networks or platforms as part of their sustainability efforts. And they're encouraging more innovation within their own organizations as well, with two-thirds telling us experimentation plays a key role in their sustainability initiatives.

Transformational CEOs are also beginning to explore even deeper collaboration, extending capabilities and sharing insights to foster open innovation (see Figure 11). By joining forces, even with competitors, organizations can channel collective efforts toward innovative industry-specific sustainability solutions to their mutual benefit—and society's.

Miki Oikawa, President of POLA Inc., a Japanese cosmetics and personal care products manufacturer, explains, "Promoting change in an inclusive way requires that we deepen our communication with competitors... The industry mindset has evolved to the point where we all recognize that sustainability is something that every company should be pursuing."

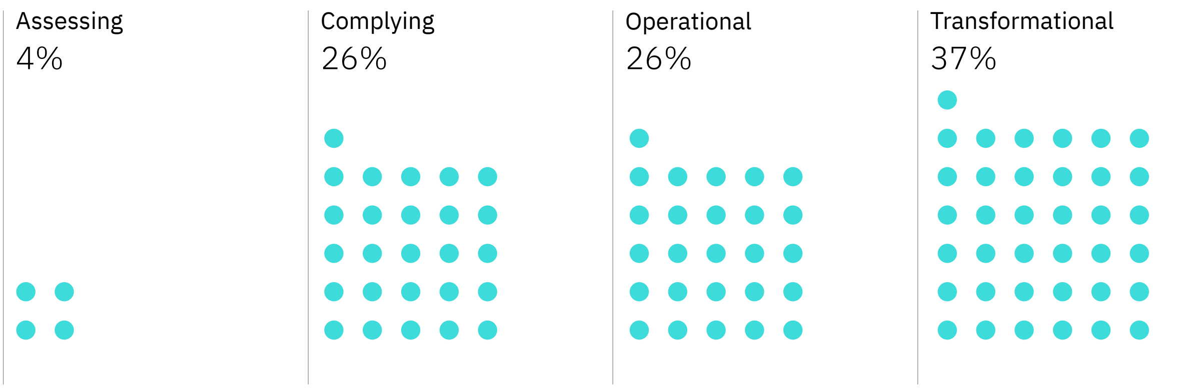
Some organizations are extending their own commitment to sustainability across their ecosystem by encouraging suppliers to adopt sustainable practices (see sidebar "Iberdrola: Building a greener supply chain").

Felipe Nascimento of MAPFRE Seguros explains the need to look beyond the uncertainties and find the potential for improvement and innovation. "ESG issues can be seen as risks, but they should also be considered as great opportunities for innovation," he says.

Figure 11

Innovating together

CEOs are beginning to tap the power of open innovation with business partners.



Q. To what extent do you agree with the following statements? Open innovation with business partners drives our sustainability initiatives. (Percentages represent "somewhat agree" and "strongly agree" responses.)

Iberdrola

Building a greener supply chain

Iberdrola is a leading global energy supplier—the third largest in the world by market capitalization—and a leader in renewables. With a commitment to reach carbon neutrality by 2030 in Europe and 2050 globally, the company wants to encourage others within the ecosystem to take active steps toward mitigating climate change.

Iberdrola set an ambitious goal to ensure that at least 70% of its core suppliers have effective sustainable development policies and standards in place. The company's existing on-premises supplier relationship management (SRM) system offered only limited governance features for company-wide purchasing and provided no way to assess new and existing suppliers against sustainability criteria. It was also becoming increasingly expensive and time-consuming to maintain and manage.

As a result, Iberdrola migrated to an all-cloud SRM that integrated with its enterprise resource planning solution, simplifying the integration of procurement with core business processes such as finance and capacity and resource planning. A third-party integrated solution helps the company score suppliers on their commitments to sustainability and offers a detailed view of the environmental impact of the supply chain. Iberdrola can also use the tool to create a clear set of actions for suppliers to meet its sustainability objectives, facilitating positive change across the energy sector.[10]

“Sustainability is not just a concept or a department in an organization anymore. It is integral to your culture and a way of life. When you want to be two steps ahead, you need the conviction of everyone in the organization.”

Suraj Bahirwani
President and Global Sales Head, Grasim Industries Limited, Pulp and Fibre division, an Indian manufacturing company

Aligning maturity and sustainability

Critical to powering innovation and improvements in productivity, efficiency, and cost, digital technologies are essential to realizing the full potential of sustainability initiatives. Peter Bakker, President and CEO of the World Business Council for Sustainable Development (WBCSD), describes technology's facilitative role, saying, "From artificial intelligence to quantum computing, technology is a critical enabler of the systems transformation that we need to ensure a world where more than 9 billion people are all living well and within planetary boundaries, by 2050."

BrightFarms, Inc., an indoor farming company, is leveraging blockchain and cloud technologies to enhance the traceability and safety of its sustainably grown produce (see sidebar: "BrightFarms: Increasing food safety–and reducing carbon footprints").

BrightFarms

Increasing food safety—and reducing carbon footprints

BrightFarms, Inc., an indoor farming company, was founded to simplify and decentralize the supply chain for greens, providing consumers with a more sustainable choice. BrightFarms establishes greenhouse farms across the United States to supply local retailers with fresh leafy pesticide-free greens that require less water and land to grow—and less fuel to transport—than products coming from more distant locations.

BrightFarms also uses blockchain and cloud technologies to help ensure the safety of its food in ever-changing climate environments, providing an additional layer of protection. Using a platform solution, BrightFarms gathers data about every step along the growing, packaging, and delivery processes, while also maintaining data security. The company also tracks key performance indicators (KPIs), determining the yield cycles and yield efficiency of different crops. BrightFarms then manages crop cycles to grow preferred varieties of fresh greens in a more sustainable way while reducing waste from over production.

The blockchain solution enables BrightFarms to pack, ship, and deliver greens in as little as 24 hours of harvest and trace all its products within 1 minute. The company anticipates substantial efficiency gains in the green market, with produce moving to market faster as the distributed ledger solution facilitates collaboration, improves transparency, and diminishes errors in transmission and processing.[11]

> "Using technology to determine how much we can save in carbon emissions and visualize that on a dashboard is also important, because without visualization, it is hard to identify problems."

Miki Oikawa
President of POLA Inc.

Xun Feng Liu of Shanghai Huayi Group outlines 4 ways digital technologies are driving sustainability: "One is by helping enterprises meet regulations and rules. Two is helping enterprises upgrade and achieve differentiated leadership. Three is by increasing customer stickiness and recognition. And four is by improving internal optimization."

Transformational CEOs report much stronger technical foundations than their peers. Meg O'Neill of Woodside explains how technologies and solutions like digital twins and condition-based maintenance can deepen an organization's insights about the business, saying, "We're making huge strides in terms of the digital capability and the technical capability to understand our business and optimize our assets."

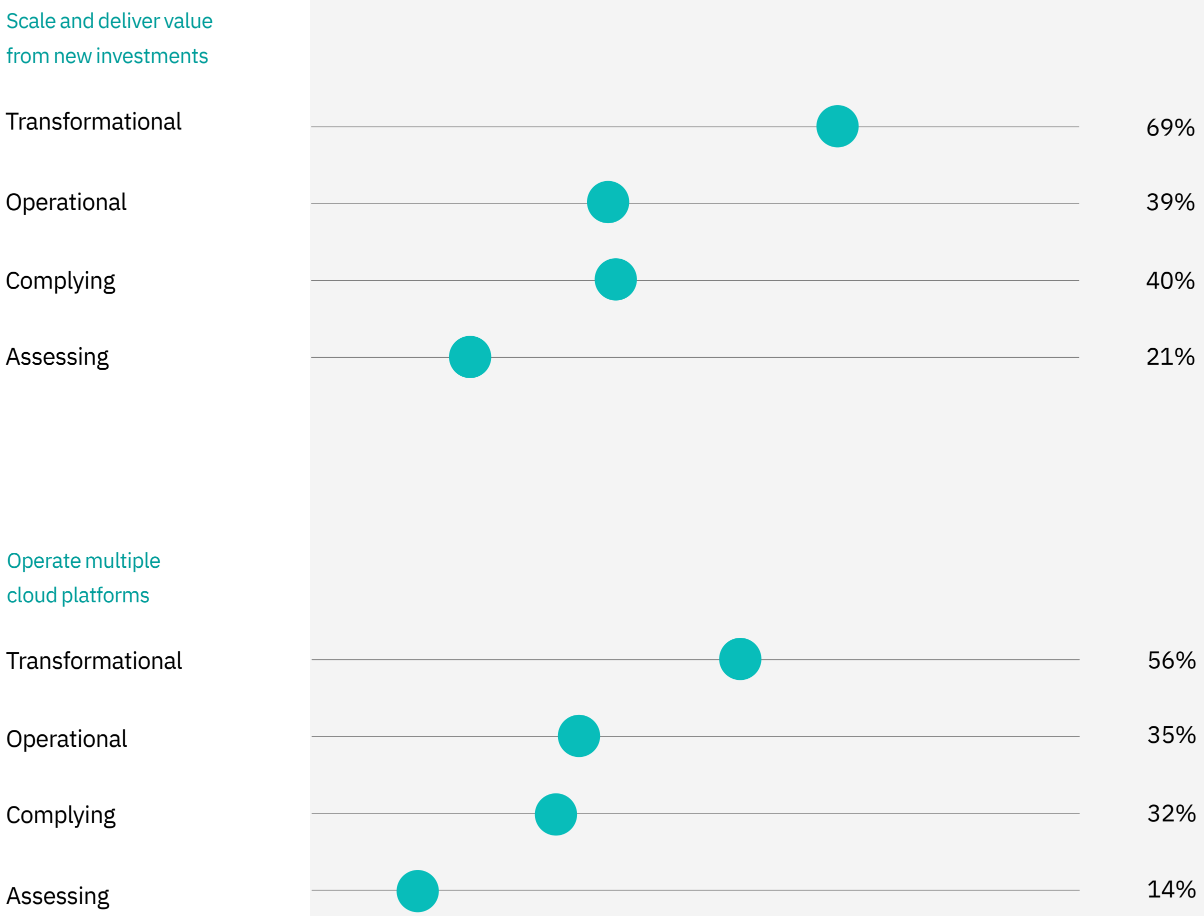
Almost 70% of Transformational CEOs are confident that their digital infrastructure enables new technology investments to efficiently scale and deliver value (see Figure 12). Transformational CEOs also embrace hybrid cloud platforms and other exponential technologies to improve performance. Dr. Nicholas Garrett, CEO at RCS Global Group, a global services provider focused on responsible sourcing, says, "Blockchain provides a trusted and secure environment that leads to greater data exchange efficiency, which reduces costs and increases the chance for more positive impact."

Transformational CEOs are confident their digital capabilities will continue to develop. While more than half say their organizations employ AI-automated digital workflows today, almost 80% expect to in 3 years—far surpassing peers.

Figure 12

Prepared to scale

With a strong digital base, Transformational CEOs can leverage exponential technologies.



Q: To what extent do you agree with the following statements? Our digital infrastructure enables new technology investments to efficiently scale and deliver value. Our data and systems currently operate on multiple cloud platforms. (Percentages reflect "somewhat agree" and "strongly agree" responses.)

Realizing the digital transformation premium

When it comes to optimizing opportunities and delivering business value, a subset of CEOs have discovered an additional, yet critical, step. These CEOs report deliberately integrating their sustainability and digital transformation efforts. For organizations with a clearly defined sustainability strategy and the right capabilities in place, this alignment is unlocking sizeable performance benefits— up to 41% higher revenue growth.

Because Assessing CEO organizations have no investments and limited to no strategy related to sustainability, this group does not figure into our analysis. However, review of the other groups highlights the advantages that strategy alignment can bring. Of particular interest is the revenue growth premium revealed by the Transformational CEOs (see Figure 13). Those who report deliberately aligning their sustainability and digital transformation efforts are realizing substantially higher growth than their peers who have not aligned these efforts. We see a similar, if less pronounced, pattern of outperformance among Operational CEOs, despite a different approach to their sustainability investments.

Meanwhile, the Transformational executives that have not yet aligned these core enterprise efforts lag behind not only their aligned Transformational peers, but also their nonaligned Operational peers. The deliberate integration of sustainability and digital transformation initiatives is essential for CEOs that transform–and, in the process, disrupt–their organizations.

Far from a "one and done" process, transformational sustainability doesn't end once the organization has built and integrated certain capabilities. Juan Carlos Mora Uribe of Bancolombia touches on the enduring nature of pursuing sustainability, reflecting, "Leadership in sustainability is ephemeral, as it is a competitive advantage. This makes us strive to continuously keep up the pace and make progress."

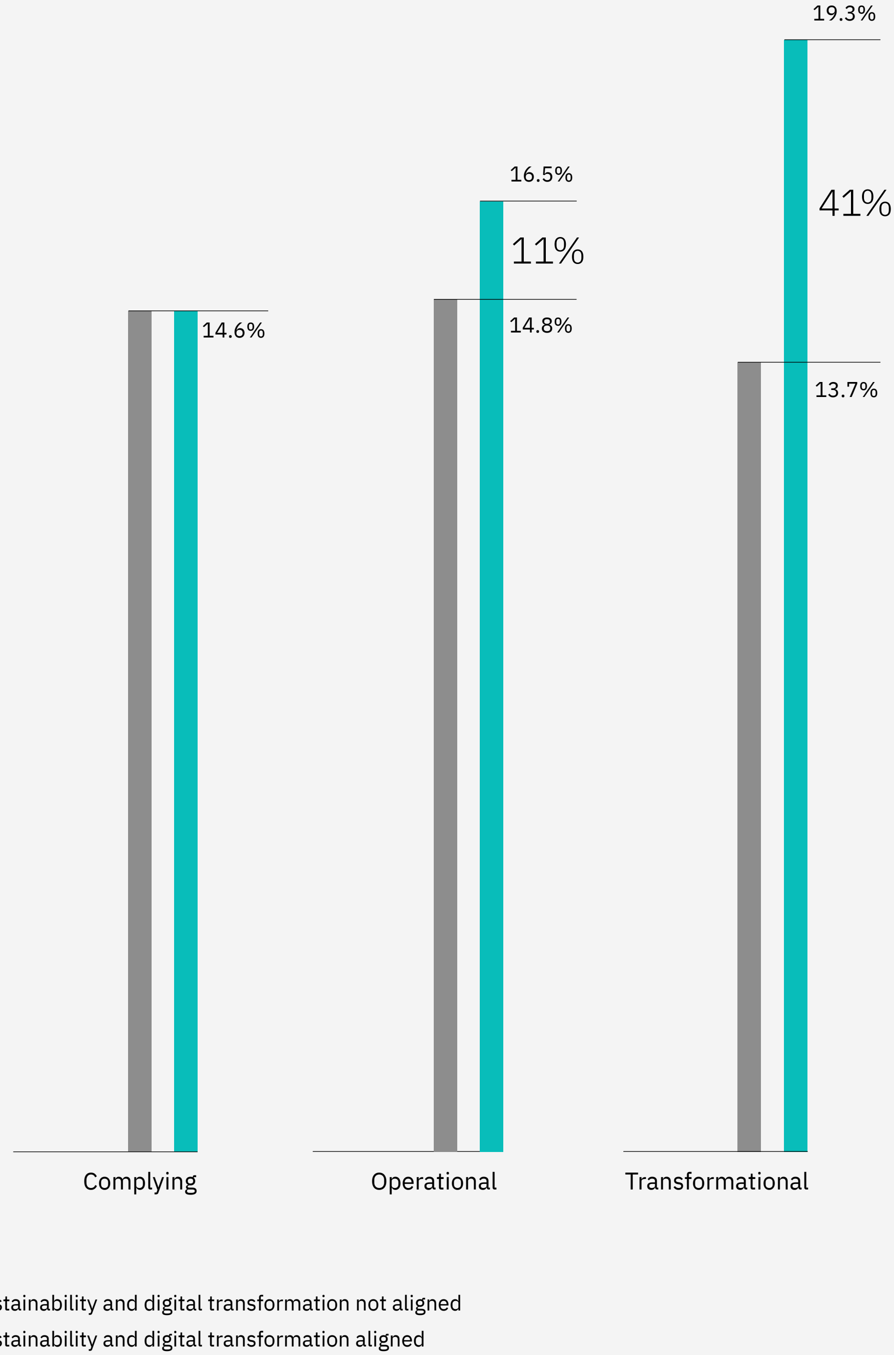
Anticipating the need for new capabilities and approaches is an important part of driving this continued progress. Marshall Wilmot of ATCO views this as an obligation for his organization. "It's incumbent upon us to deliver new and innovative technologies and solutions to our customers, always thinking a step or two beyond our current business model. I think we'd be remiss if we weren't looking to the future and ensuring that we're the ones that can provide those capabilities," he says.

Keeping an eye on the long game was a common theme among CEOs when discussing sustainability pursuits. Jochen Zeitz, CEO of Harley Davidson, contextualizes his company's investments in electrification: "We're working diligently at finding solutions for the long run.... We want to build on the legacy and the legend of the brand."

Figure 13

Transform to grow

CEOs who are integrating sustainability and digital transformation are realizing higher revenue growth.



Q: What was your organization's year-on-year 1H 2021 revenue/budget growth (i.e., 1H 2021 vs 1H 2020)?

"The advancement of sustainability and digitization is crucial to our forward-looking approach."

Dr. Stefan Rennicke

CEO of KAYA&KATO, GmbH,
a German textile and workwear company

Action guide: Steps toward progress for each pathway

The time for action is here. CEOs can't ignore sustainability nor can they afford to approach it with trepidation. This action guide offers the next steps CEOs in all types of organizations can take to address stakeholder pressure and move toward lasting transformational sustainability.

Realizing the business potential of sustainability requires concerted action on multiple fronts. The right next steps depend on where you are in your sustainability pursuit. We offer actions based on where you believe your organizations is today and where you aspire it to go in the future.

Action guide:

All CEOs

Embrace personal responsibility for your organization's sustainability agenda:

– Be proactive in the pursuit of sustainability.
– Shape the narrative and champion a compelling sustainability opportunity for your organization.

Build and maintain your technology foundation:

– Invest in open and interoperable technologies that enable you to employ data software and innovation at scale and speed across your enterprise.
– Create the technology and data foundation and governance for orchestration, cooperation, co-creation, agility, and informed decision making.

Engage employees and talent:

– Attract and retain purpose-driven people with the skills and domain expertise to execute.
– Actively engage employees in the development and execution of your sustainability initiatives.

Make sustainability an enterprise-wide concern:

– Engage leaders across key functions and lines of business in a coordinated effort and insist on shared accountability.
– Embed a sustainability mindset across core functions and drive improvement throughout the enterprise.

Seek collaboration opportunities with ecosystem partners:

– Actively build and engage your ecosystems to advance shared sustainability objectives.
– Accelerate insights, initiatives, and impact by leveraging collective capabilities and driving open innovation.

Anticipate challenges and stay focused on outcomes:

– Define and track measures and metrics emphasizing transparency, long-term objectives, and new sources of value.
– Think big, start small, and scale fast to show the value of sustainability and build buy-in from key stakeholders.

Action guide:

Transformational CEOs

Embed sustainability at the core:

– Weave sustainability throughout the enterprise and integrate with digital transformation.
– Drive an expectation of continuous improvement.

Infuse a purpose-driven culture:

– Reinforce sustainability throughout the enterprise.
– Employ change management to guide, engage, and support people throughout transformation.

Accelerate open innovation:

– Leverage ecosystem partnerships to extend capabilities, knowledge, and skills.
– Embrace experimentation and incorporate new sources of data for improved insight.

Redefine your measures and metrics:

– Refine sustainability measures and data with a focus on improving ROI calculation.
– Embrace broader definitions of value and new time horizons for returns.

Capitalize on your advantages:

– Extend technical capabilities to differentiate and accelerate with your ecosystem partners.
– Capture new sources of value available only to those with sustainability at the core.

Action guide:

Operational CEOs

Define your sustainability objectives:

- Finalize a sustainability strategy for your entire organization, clarifying how and where you intend to pursue operational versus transformational sustainability.
- Align your sustainability and digital transformation strategies for maximum impact.

Strengthen your technical foundation:

- Invest in technologies, such as hybrid cloud and AI, necessary to enhance scalability, optimize agility, and accelerate data-driven insight.
- Enhance the orchestration and automation of apps, workloads, resources, and infrastructure across platforms.

Recalibrate measures to reinforce sustainability:

- Optimize key performance measures to incorporate sustainability and improve confidence in ROI calculations.
- Link sustainability outcomes to compensation incentives for a broad and deep group of employees.

Deepen your supplier and ecosystem engagement:

- Engage with suppliers and business partners in co-creation for improved sustainability solutions and ways of working.
- Help ensure end-to-end visibility in your supply chain through data platforms to identify opportunities for business and sustainability improvement.

Scale sustainability's impact on your business:

- Engage enterprise transformation and technology leaders in your enterprise and work across the C-suite for greater impact.
- Involve your employees in the sustainability journey through co-creation, crowdsourcing, and innovation workshops.

Action guide:

Complying CEOs

Refine the importance of sustainability in the organization:

– Reframe sustainability as an opportunity to pursue rather than a cost to be avoided.
– Define a clear path forward that distinguishes between optimization and a more fundamental transformation around sustainability.

Expand capabilities:

– Develop the data and technology foundation required for transparency in pursuit of sustainability objectives.
– Reskill and engage employees to enable change for sustainability.

Evaluate new measures and metrics:

– Define measures and data requirements for driving sustainability performance in your organization.
– Identify and fill data and analytics gaps for more confident ROI calculation.

Broaden leadership engagement:

– Grow the coalition of organizational leaders engaged in and accountable for the success of sustainability initiatives.
– Incentivize executives and employees by linking compensation to sustainability performance.

Embrace collaborators:

– Embrace customers, investors, and employees as collaborators and enablers rather than obstacles.
– Work actively with suppliers and ecosystem partners in pursuit of sustainability objectives.

Action guide:

Assessing CEOs

Spark a sense of urgency around sustainability:

– Commit to supporting sustainability personally.
– Initiate sustainability strategy discussions and define key objectives.

Invest in fundamentals:

– Expand and modernize the technical infrastructure and capabilities that will serve as the building blocks for future growth.
– Begin developing the workforce skills necessary to achieve future sustainability objectives.

Anticipate challenges:

– Prepare your stakeholders for new ways of calculating ROI for sustainability.
– Evaluate potential investments along realistic timelines.

Identify partners inside and beyond your organization:

–Broaden executive engagement to include operations, transformation, finance, and technology leaders.
– Seek collaboration opportunities and partnerships that can inform and accelerate your sustainability initiatives and capabilities.

Take action:

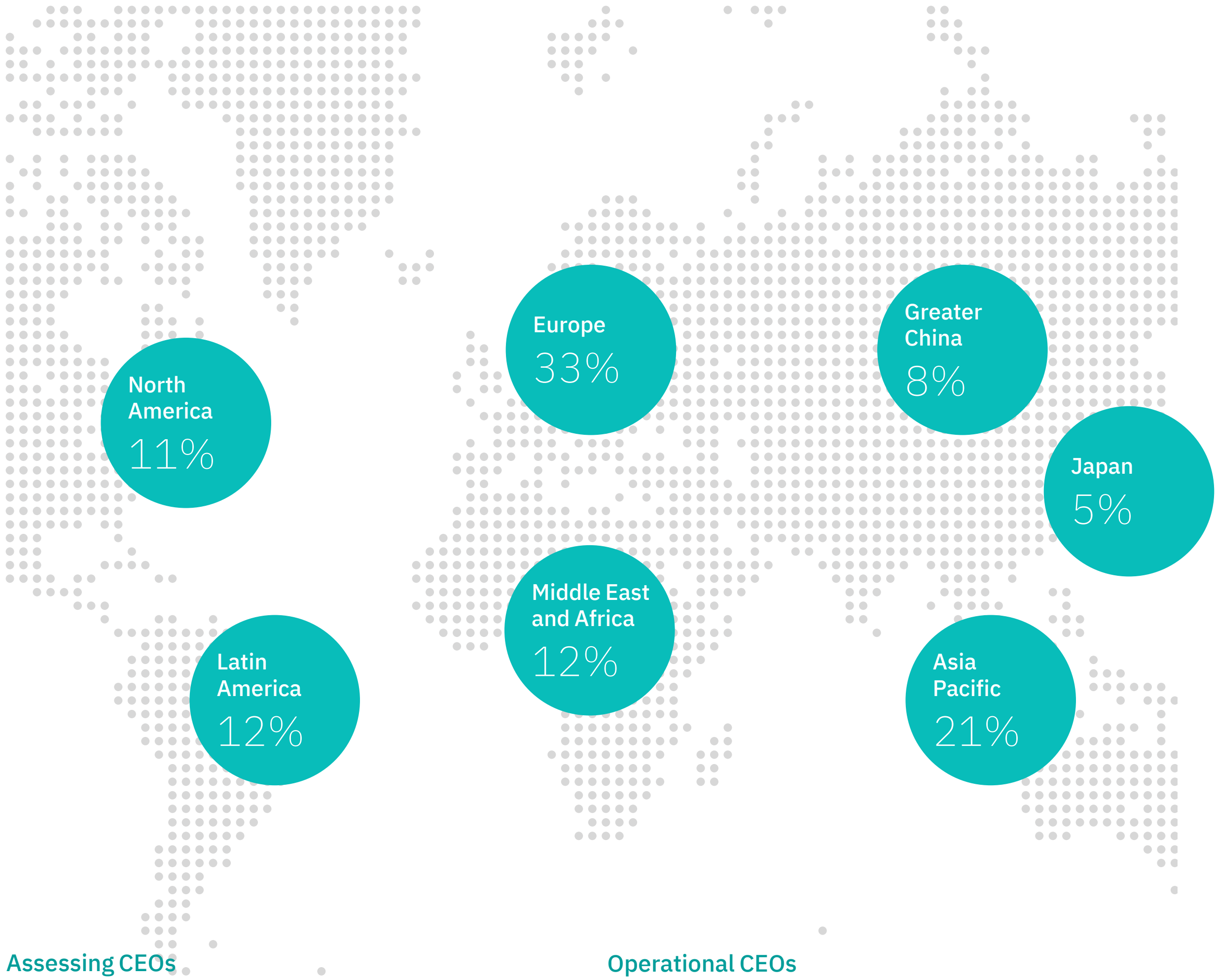
– Be willing to take the first steps without complete or perfect information.
– Learn from your initial efforts while building out the key assets and resources that will enable greater risk taking.

Research and analysis methodology

In cooperation with Oxford Economics, the IBM Institute for Business Value interviewed 3,000 CEOs from 40+ countries and 28 industries as part of the 25th edition of the IBM C-suite Study series. These inteviews were conducted virtually. Through live video conferencing and in-person meetings, the IBV conducted additional deep-dive interviews with more than a dozen CEOs from multiple industries and countries. These qualitative conversations focused on executives' perspectives on leadership and business; their changing roles and responsibilities; and sustainability, including how they are addressing challenges, what they see as opportunities, and their visions for the future.

Respondents in our study represent the most senior executive roles at their organizations: CEOs, Public Leaders, General Managers, and Managing Directors. The IBV designed data collection by geographic location and industry, with representation across organizations of various sizes as defined by annual revenue or, in the case of public sector organizations, annual budgets.

The IBV implemented a straightforward segmentation logic that sorted respondents into 4 groups. These groups have been defined as *Assessing, Complying, Operational,* and *Transformational* CEOs.
The groupings were based on respondents' characterizations of their investments in sustainability on specific items in the 2022 IBM CEO study survey instrument.



Assessing CEOs
report no sustainability investments to date. Some indicate no plans to make any investments around sustainability, while others indicate that they are exploring options but have not yet made any investments.

Operational CEOs
report investments in sustainability outside core business areas and/or investments in one or more core business areas. They may also report investments focused on compliance with industry mandates and/or regulations.

Complying CEOs
report that their investments in sustainability are primarily focused on aligning with industry mandates and/or regulations.

Transformational CEOs
report making transformational investments in sustainability that reshape major aspects of their enterprise. They may also report investments in sustainability in particular business areas and/or focused on compliance with industry mandates and/or regulations.

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At IBM, we collaborate with our clients, bringing together business insight, advanced research, and technology to give them a distinct advantage in today's rapidly changing environment.

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