A World in Balance 2023

HEIGHTENED SUSTAINABILITY AWARENESS YET LAGGING ACTIONS

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At the core of this report lie the twin pillars of environmental and social sustainability, articulating the profound significance of these intertwined dimensions. This thematic route echoes the paramount importance of nurturing both aspects in unison, mirroring the symbiotic relationship that underpins sustainability. Through the visual imagery presented within, we aim to convey the notion of equilibrium and coexistence, highlighting the delicate balance that is essential for sustainable progress.

The cover image depicts a cranberry harvest in North America. There is only one harvest season per year, from mid-September to early November, when cranberries reach their peak color.

Executive Summary

Human activity is exerting an unprecedented destabilizing influence on Earth's climate and ecosystems. Not only have six of the nine planetary boundaries been crossed, but we are edging ever closer to the remaining three, risking irreversible change and harm to our ecosystems.[1,2]

In last year's first edition of our annual A World in Balance research series, we found that, while organizations across industries have set long-term targets for achieving environmental sustainability, limited implementation is visible on the ground. Our 2022 research revealed that many executives remained unclear as to the business case for sustainability, regarding it as an unwelcome cost driver rather than an investment opportunity. Around half of respondents believed sustainability is a non-viable option, with the costs involved in pursuing it outweighing the benefits.

In 2023, likely driven by the increasing incidences of extreme weather around the world, coupled with more stringent regulation, this has begun to change. More executives today say the sustainability business case is clear; in fact, this percentage has tripled in the past year, from 21% in 2022 to 63%. More also say that the benefits of sustainability outweigh the costs and view sustainability more positively than as simply a financial obligation.

Despite the improved sentiment on sustainability and clarity around the business case, investment in sustainability has not increased in 2023. Our research reveals that organizations continue to fall short in terms of reporting on environmental sustainability initiatives, especially in measuring and collecting Scope 3 emissions. Similarly, action around sustainable product design has been less than impressive since last year's research. There are pockets of progress, however, in defining sustainability priorities and redesigning business models. In fact, 57% of executives shared that their organization is in the process of redesigning its business/operating model to be more sustainable, up from 37% in 2022. Biodiversity is also becoming more of a focus for organizations. With such significant improvements this year in the sustainability sentiment, we expect investment and more sustained action to follow suit in the coming year or two.

Importantly, social sustainability is moving up the corporate agenda, with over half of executives (56%) saying their organization is increasingly focused on the social dimension of environmental, social, and corporate governance (ESG),

Executive Summary

with organizations' own employees being the primary beneficiaries. Our research reveals that organizations can do more to support workers in the supply chain, as only 38% currently restrict global suppliers to those who pay a living wage. They can also expand their ranges of accessible products and services to be more inclusive to people with a disability, health condition, or impairment, and by making them more affordable to local communities.

In this year's research, we also explored the critical topic of greenwashing. We found a perception gap between executives and consumers: only 17% of executives are concerned by the risk of greenwashing, while 33% of consumers globally believe organizations and brands are greenwashing their sustainability initiatives, rising to 50% among Gen Z consumers. We also found that organizations are pinning their hopes on digital technology and, in particular, generative artificial intelligence (AI), to help them achieve their sustainability goals. Fifty-nine percent of executives believe that generative AI will play a key role in their organization's sustainability transformation efforts.

Lastly, our report shares recommendations for sustainability leaders to accelerate environmental and social initiatives from positive perception to sustained action:

01	Ensure sustainability is a boardroom priority
02	Embed social sustainability in the sustainability strategy
03	Focus on quantifying Scope 3 emissions accurately
04	Embrace circular and inclusive design
05	Close the intention-action gap
06	Explore the potential of technology to achieve climate goals

WHO SHOULD READ THIS REPORT AND WHY?

This report offers comprehensive insights into important sustainability trends, both environmental and social, for the global corporate sector. It also provides perspective on shifts in these trends over the past year. Large organizations across industries such as aerospace and defense, automotive, consumer products and retail, energy and utilities, healthcare and life sciences, industrial manufacturing, public/government, and telecom, and any others that have ambitions to make an impact in a climate or social sphere, will find this report valuable.

This report offers recommendations for executives to assist them in accelerating their sustainability journeys. It provides practical steps that senior leaders can take to begin developing a sustainability strategy and/or to advance their current sustainability actions. Given the importance of sustainability to different areas of business, this report is useful to a wide audience. The report caters to leaders across corporate functions (e.g., strategy, sustainability, corporate social responsibility, sales and marketing, finance and accounting, and human resources) and functional leaders within value chain departments (e.g., R&D, product design, sourcing and procurement, logistics, and production).

This report is based on original findings from a comprehensive industry survey of 2,151 senior executives (director level and above) from 718 leading organizations across 13 countries, with annual revenue above $1 billion. Around 50% of surveyed executives are employed within corporate functions, and the remaining 50% come from value chain functions. We also conducted a global survey of 6,500 consumers to complement the executive findings. Please see the research methodology at the end of the report for more details.

Introduction

This report is the second in Capgemini's annual research series that examines evolving corporate sustainability trends. In the first report of this series, we explored whether organizations are taking sustainability seriously and assessed their progress in transforming towards sustainability across strategy, products and services, operations, IT, and data use. We also explored the relationship between the maturity of organizations' sustainability transformations and their financial performance. In our 2022 research, we discovered that, while organizations across industries have set long-term targets for achieving environmental sustainability, limited action is visible on the ground.

In this year's report, we examine the shifts in the aforementioned trends over the past year, and also explore the most significant newly emerging themes. Critically, we examine the extent to which organizations are focusing on social topics as part of their sustainability ambitions.

To address these questions and themes, we conducted a global research study covering large organizations across 13 countries: Australia, Canada, France, Germany, India, Italy, Japan, the Netherlands, Norway, Spain, Sweden, the UK, and the US. These organizations operate across key industries and sectors, including aerospace and defense, automotive, consumer products, energy, financial services, healthcare and life sciences, industrial manufacturing, retail, telecom, utilities, and the public sector/government.

The research focuses on practices and initiatives within environmental and social sustainability. The research structure includes a survey of 2,151 respondents from 718 organizations with annual revenue in excess of $1 billion. They are divided into the following profile groups:

- 50% are executives from corporate functions, including strategy, sustainability, sales and marketing, finance and accounting, IT, operations, and human resources

- 50% are executives from value-chain functions including innovation/R&D, product design and development, sourcing and procurement, supply chain and logistics, and manufacturing and production

We surveyed three executives from every organization included in the research. We also surveyed 6,500 consumers across the 13 countries to complement the findings from executives. For more details on the survey samples, please refer to the research methodology.
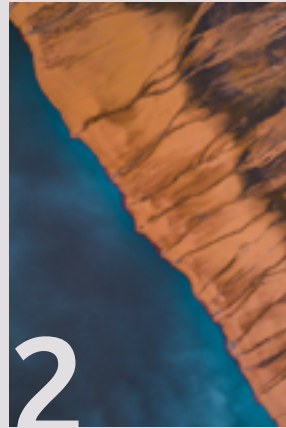
Introduction

This report comprises five sections:
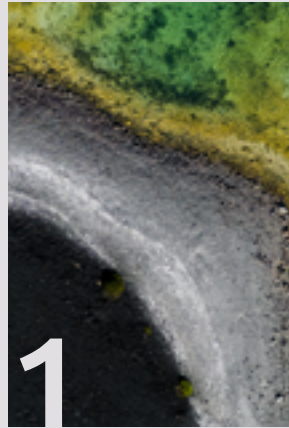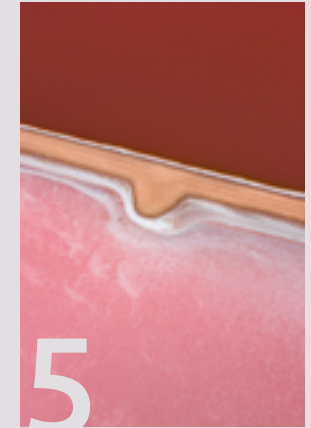

1 The sustainability business case comes into focus

2 Improved perceptions of sustainability are driving action plans and priorities

3 Social sustainability is moving up the corporate agenda

4 Generative AI has promising use cases for sustainability

5 Recommendations: How organizations can accelerate their sustainability transformations

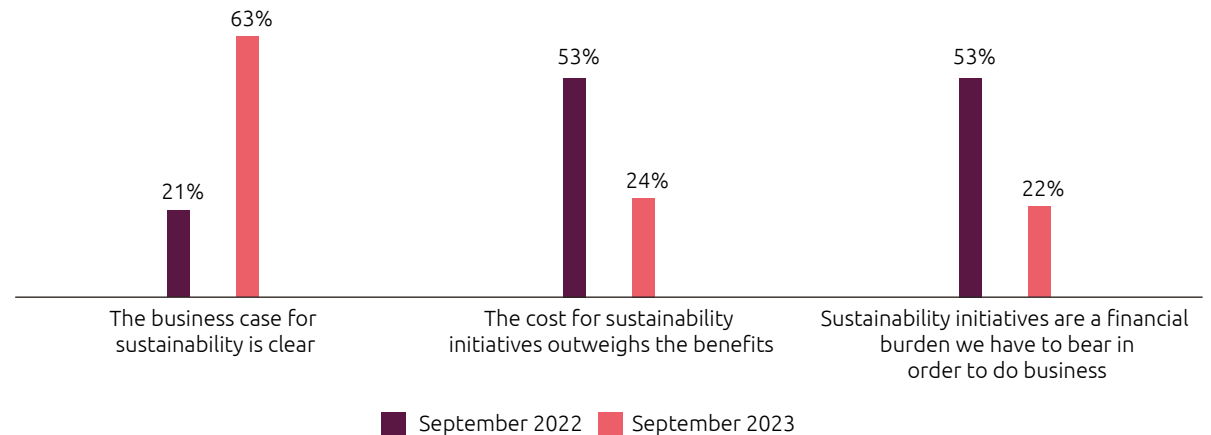# 01

THE SUSTAINABILITY BUSINESS CASE COMES INTO FOCUS

More executives see sustainability as a growth opportunity

Organizations today understand the business case for environmental sustainability better than even a year ago. In 2022, only 21% of executives agreed that the business case for sustainability was clear. In 2023, this percentage has tripled to 63%. In addition, the percentage of executives that claim the cost of sustainability initiatives outweighs the benefits and that sustainability initiatives are a financial burden has declined by more than half in the past year (see Figure 1). *"The only way IKEA can be successful in the future is to be in a hurry to get sustainable. We need to get smarter on how we use energy and materials across the whole value chain,"* says Jesper Brodin, CEO of Ingka Group.[3]
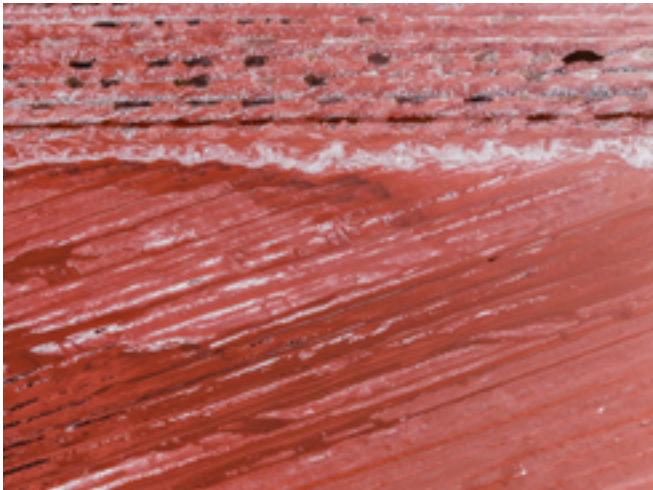
FIGURE 1.

Over 60% of executives now say that the business case for sustainability is clear

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

	September 2022	September 2023
The business case for sustainability is clear	21%	63%
The cost for sustainability initiatives outweighs the benefits	53%	24%
Sustainability initiatives are a financial burden we have to bear in order to do business	53%	22%

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 2,004 executives, 668 organizations; August–September 2023, N = 2,001 executives, 668 organizations.
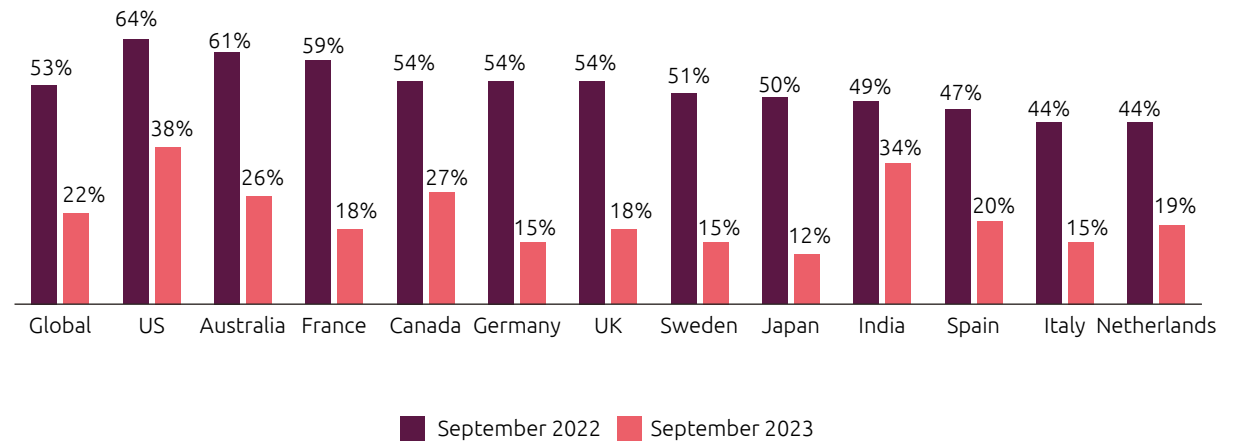
This year's research witnessed a consistent decline across countries in the share of executives agreeing that sustainability initiatives are principally a financial burden. US executives are the least progressive in this regard, with 38% viewing sustainability as a financial burden they must bear to do business (see Figure 2).

FIGURE 2.

The view of sustainability as a financial obligation has declined across all countries but remains most pronounced in the US

% OF EXECUTIVES BY COUNTRY WHO AGREE WITH THE STATEMENT: SUSTAINABILITY INITIATIVES ARE A FINANCIAL BURDEN WE HAVE TO BEAR IN ORDER TO DO BUSINESS

Country	September 2022	September 2023
Global	53%	22%
US	64%	38%
Australia	61%	26%
France	59%	18%
Canada	54%	27%
Germany	54%	15%
UK	54%	18%
Sweden	51%	15%
Japan	50%	12%
India	49%	34%
Spain	47%	20%
Italy	44%	15%
Netherlands	44%	19%

■ September 2022   ■ September 2023

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 2,004 executives, 668 organizations; August–September 2023, N = 2,001 executives, 668 organizations.

Key drivers of the sustainability business case

Drivers of this positive sentiment over the past 12 months include:

- **Extreme weather affecting every continent:**
  Catastrophic weather events have touched every continent in recent years. Summer 2023 was the most extreme ever, with historic temperature rises, wildfires, and storms. This is driving public discourse around climate change. For example, there were record high temperatures in China, Europe, North Africa, the US, and the Middle East; wildfires in Europe, Canada, and the US; flooding in the Middle East and the US; drought conditions in the Horn of Africa and Chile; as well as the warmest sea temperatures on record.[4,5]

- **Costs from climate disasters being consistently high:** Extreme weather events lead to significant costs to society, including damage to infrastructure, property, agriculture, and human health. A recent study estimates that from 2000 to 2019, weather events such as hurricanes, floods, and heat waves cost $2.86 trillion globally,

averaging $143 billion annually. The study also projects that the global cost of climate damage will be between $1.7 trillion and $3.1 trillion per year by 2050.[6,7] To date in 2023, the US alone has experienced 24 weather/climate disaster events with losses exceeding $1 billion each according to the US National Centers for Environmental Information.[8]

- **More organizations motivated by regulation:** Sixty-four percent of executives in our survey shared that a motivating factor for adopting environmental and/or social sustainability strategies and initiatives was to comply with current regulation, up from 51% in 2022.

- **Increasing pressure from regulators:** The EU Corporate Sustainability Reporting Directive (CSRD) came into effect in 2023. CSRD requires all large organizations and listed small- and medium-sized organizations to report regularly on their environmental and social impact and defines a standard reporting framework for non-financial data. Failure to comply with CSRD can attract significant sanctions, according to the European Commission.[9] The Corporate Sustainability Due Diligence Directive (CSDDD) is set to take effect in 2025 or 2026, and will make it mandatory for organizations operating in the EU to address adverse impacts of their operations and supply chains on

64%

of executives in our survey shared that a motivating factor for adopting sustainability was to comply with current regulation, up from 51% in 2022

human rights and the environment. In March 2022, the US Securities and Exchange Commission (SEC) proposed a climate-related disclosure rule that would require publicly traded organizations to report Scope 1, Scope 2, and Scope 3 carbon emissions in initial filings and annual financial reports.[11]

- **New standards coming into force:** 2023 saw groundbreaking sustainability agreements, including the adoption of the Kunming-Montreal Global Biodiversity Framework set at COP 15, the first science-based targets for nature, and the final recommendations from the Taskforce on Nature-related Financial Disclosures in September 2023, which will enable organizations to assess, disclose, and manage nature-related risks and impacts.[12]

- **More organizations motivated by revenue potential:** Three-quarters (74%) of executives in our survey shared that a motivating factor for adopting environmental and/ or social sustainability strategies and initiatives was to increase future revenue, up from 52% in 2022.

- **The US Inflation Reduction Act (IRA) gains momentum:** Signed into law in August 2022, the landmark climate legislation made investing in climate technologies in the US more attractive. The IRA includes funding, programs, and incentives to accelerate the transition to clean

energy and cut carbon emissions. The IRA offers tax credits for organizations that manufacture in the US and provides subsidies for both domestic and international organizations.[13] In the US, more than $21.7 billion has been committed to support early-stage clean tech in areas like carbon storage, electric vehicles, and clean energy. The EU lags with $8.7 billion in similar projects since the enforcement of IRA.[14] The difference is most dramatic in clean hydrogen. EU venture capital investments in clean hydrogen reached a peak of €343 million in Q1 2022, nearly three times that of the US. However, in subsequent quarters, US investments in green hydrogen consistently surpassed EU investments, totaling €1.2 billion more over the entire period.[15]

- **Consumer protections for sustainability gain traction:** In May 2023, the European Parliament adopted a new directive to restrict business practices that limit consumers' sustainable choices.[16] In June 2023, the UK Advertising Standards Authority released updated guidance on misleading environmental claims and social responsibility.[17]

- **More organizations setting net zero targets:** As of June 2023, 929 organizations from the Forbes 2000 list have set net zero targets, up 32% from 702 in June 2022.[18]

- **More organizations committing to / validating science-based targets:** More organizations set targets in 2022 than in the entire preceding seven-year period, representing an 87% increase in targets validated by SBTi from 2021 to 2022. By the end of 2022, the 4,230 organizations with science-based targets or commitments represented 34% of the global economy by market capitalization.[19]

74%

of executives in our survey shared that a motivating factor for adopting sustainability was to increase future revenue, up from 52% in 2022
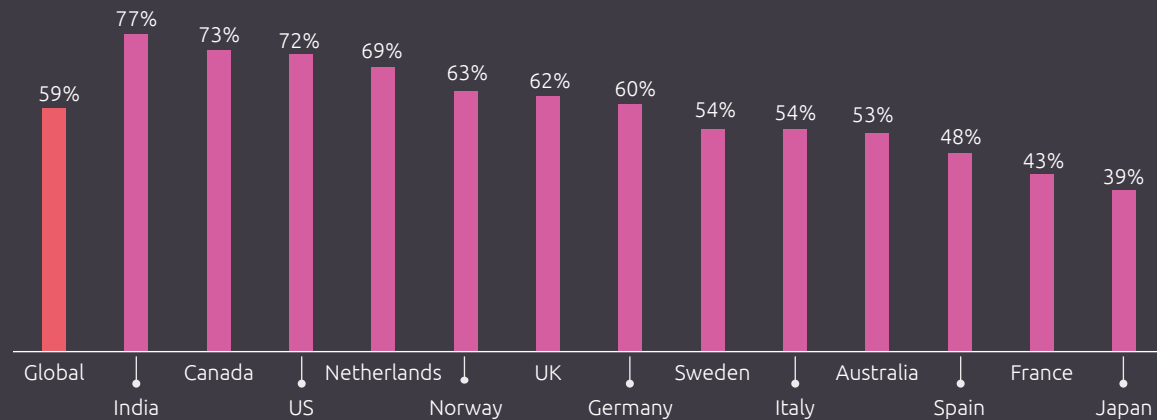
AT MOST ORGANIZATIONS, THE BOARD ENGAGES WITH SUSTAINABILITY

Most executives in this year's survey agreed that their board of directors is actively engaging with their organization's sustainability strategy, meaning they prioritize sustainability and are working in close collaboration with the CEO and management team on devising strategy. Board engagement is highest in India (77%) and lowest in Japan (39%) (see Figure 3). The high proportion of board engagement in India may be driven by the mandate requiring companies above a certain size to invest 2% of their net profits on corporate social responsibility (CSR) projects every year.

FIGURE 3.

Nearly 60% of executives globally say their board of directors is engaged with sustainability strategy

% OF EXECUTIVES BY COUNTRY WHO AGREE WITH THE STATEMENT: OUR BOARD OF DIRECTORS PRIORITIZES SUSTAINABILITY AND IS ACTIVELY ENGAGED WITH OUR ORGANIZATION'S SUSTAINABILITY STRATEGY (SEPTEMBER 2023)

Global	India	Canada	US	Netherlands	Norway	UK	Germany	Sweden	Italy	Australia	Spain	France	Japan
59%	77%	73%	72%	69%	63%	62%	60%	54%	54%	53%	48%	43%	39%

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 1,076 executives from corporate functions.

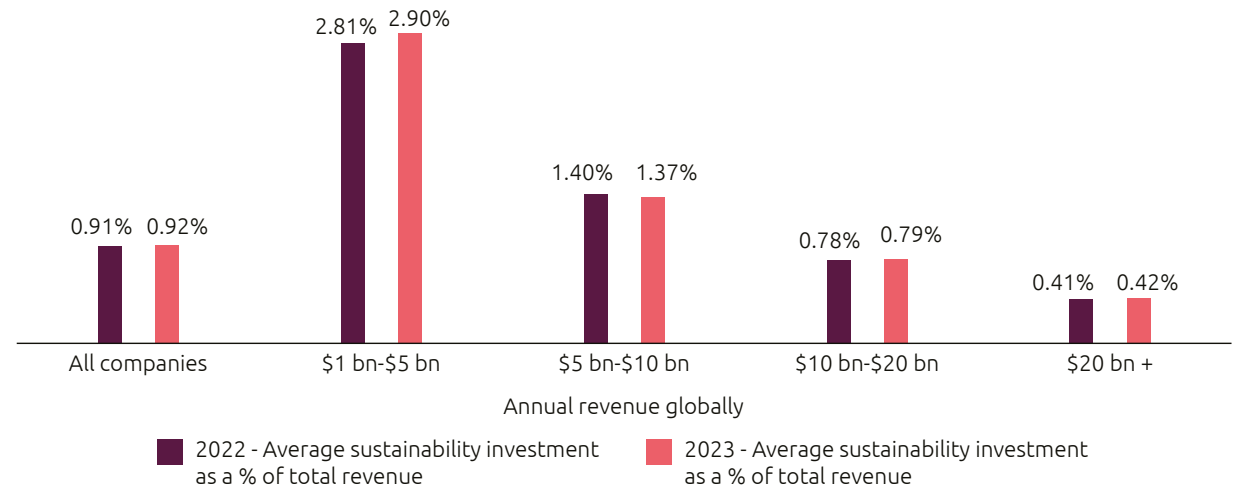# 02 | IMPROVED PERCEPTIONS OF SUSTAINABILITY ARE DRIVING ACTION PLANS AND PRIORITIES

The positive shift in sentiment has not translated to increased sustainability investment yet

In our current 2023 research, average annual investment in environmental sustainability initiatives and practices across industries represents 0.92% of total revenue, up from 0.91% in 2022. This increase represents an additional $1.4 million investment per company on average, year on year. As was the case in 2022, total spending on sustainability trends upward with organization size, but larger organizations invest less as a percentage of total revenue: on average, only 0.42% of total revenue compared with 2.9% among smaller organizations (see Figure 4).

Sustainability investment stayed broadly unchanged in 2023

AVERAGE ANNUAL INVESTMENT IN SUSTAINABILITY AS A % OF TOTAL REVENUE, BY COMPANY SIZE

Annual revenue globally	2022	2023
All companies	0.91%	0.92%
$1 bn-$5 bn	2.81%	2.90%
$5 bn-$10 bn	1.40%	1.37%
$10 bn-$20 bn	0.78%	0.79%
$20 bn +	0.41%	0.42%

■ 2022 - Average sustainability investment as a % of total revenue
■ 2023 - Average sustainability investment as a % of total revenue

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 668 organizations; August–September 2023, N = 668 organizations.
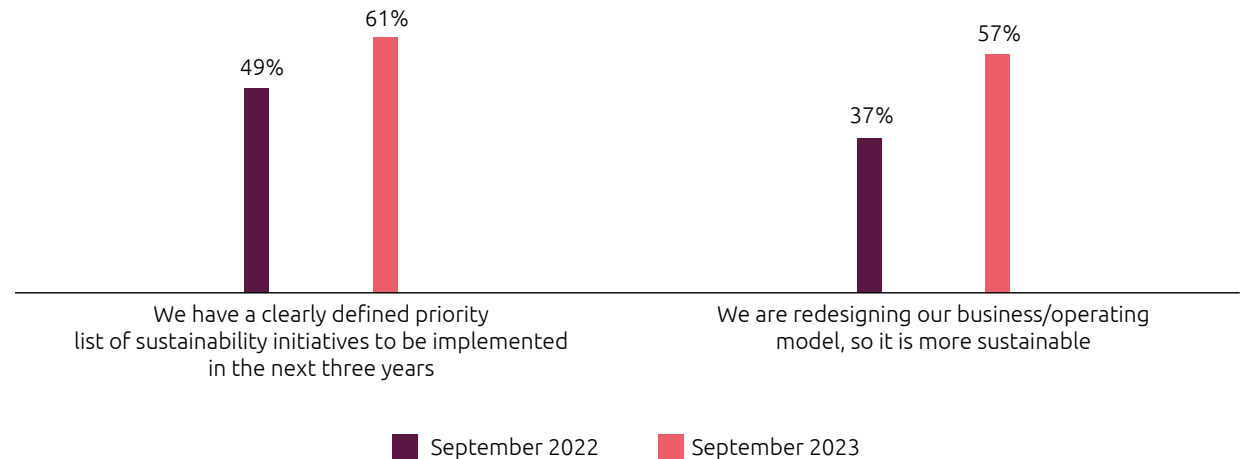
However, organizations have progressed in defining sustainability initiatives and redesigning business models

The share of executives that say their organization has a defined priority list of sustainability initiatives to implement in the next three years is up to 61%, from 49% in 2022. In addition, more executives shared that their organization is in the process of redesigning its business/operating model to be more sustainable (37% in 2022, up to 57% in 2023) (see Figure 5).

FIGURE 5.

More than half of executives say their organization has a 3-year priority list of initiatives and is redesigning its business/operating model to be more sustainable

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

We have a clearly defined priority list of sustainability initiatives to be implemented in the next three years — September 2022: 49%, September 2023: 61%

We are redesigning our business/operating model, so it is more sustainable — September 2022: 37%, September 2023: 57%

■ September 2022   ■ September 2023

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 1,003 executives in corporate functions; August–September 2023, N = 1,001 executives in corporate functions.

Executives at organizations with boards who are actively engaged in sustainability are even more optimistic on these measures:

- 74% of executives with engaged boards say they have a clearly defined priority list of sustainability initiatives, compared with 61% on average

- 71% say they are redesigning their business or operating models to be more sustainable (versus 57% on average)

- Further, executives at organizations with engaged boards are more likely to agree that, by 2040, they will have more sustainable business models (88% versus 53% on average, globally).

57%

of executives say that their organization is redesigning its business/operating model to be more sustainable
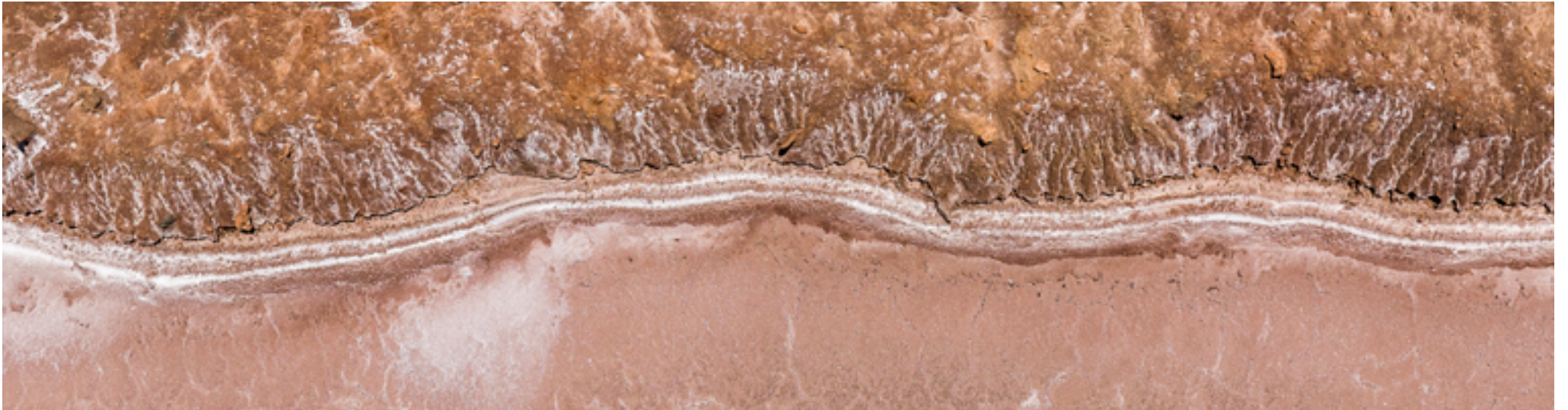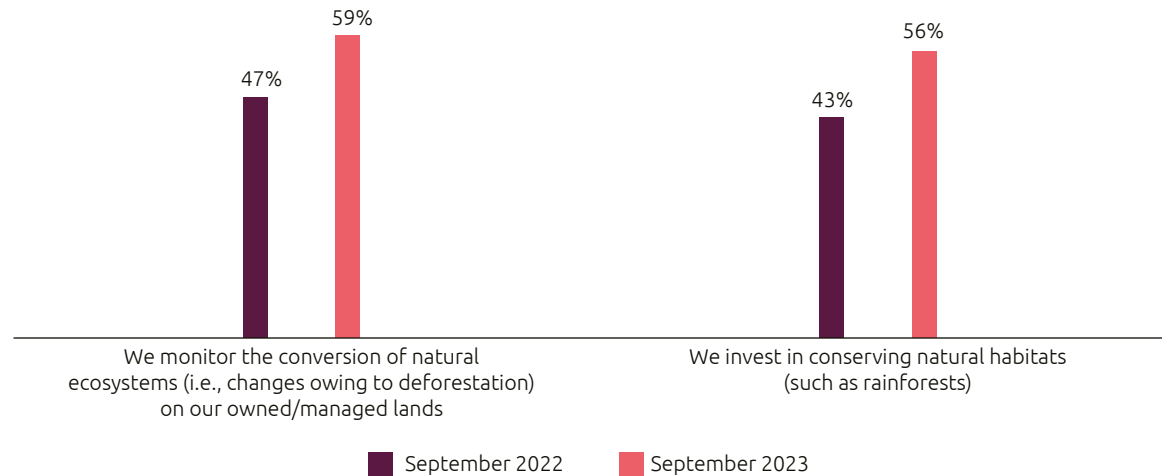
Biodiversity has become more of a focal point

In our recent biodiversity research, 63% of executives surveyed said biodiversity is important to their company, but only 24% of organizations have a biodiversity strategy.[20] While most organizations lack a coherent strategy to protect biodiversity and combat biodiversity loss, they have progressed in actions taken since last year. In our current research, 59% of executives say that their organization monitors the conversion of natural ecosystems (i.e., changes owing to deforestation) on their owned or managed lands, up from 47% in 2022. In addition, 56% say their organization invests in conserving natural habitats, up from 43% in 2022 (see Figure 6).

FIGURE 6.

Organizations have improved their actions to preserve biodiversity

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

We monitor the conversion of natural ecosystems (i.e., changes owing to deforestation) on our owned/managed lands — September 2022: 47%, September 2023: 59%

We invest in conserving natural habitats (such as rainforests) — September 2022: 43%, September 2023: 56%

■ September 2022   ■ September 2023

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 1,001 executives in value chain functions; August–September 2023, N = 1,000 executives in value chain functions.

In the sections that follow, we highlight three key challenges that organizations face today in their sustainability transformations relating to:

• Developing sustainable products and services

• Measuring Scope 3 emissions

• Reporting and disclosing environmental sustainability data

Actions addressing these three topics have largely remained unchanged from last year or, in some cases, declined.

60%

of executives say their organization reports a carbon footprint for every product/ service they sell, virtually unchanged from 2022

Sustainable product design and development have seen only limited advancement

There has been limited to no movement in key areas related to product design and development. For example, 60% of executives say their organization reports a carbon footprint for every product/service they sell, virtually unchanged from 2022 (59%). In the case of designing products to have longer life spans, the share of executives who say their organization does this declined from 57% in 2022 to 47% in 2023. When it comes to eliminating fossil fuels and moving away from product design using virgin timber, organizations have made headway, being up 15% in both areas (see Figure 7).

FIGURE 7.

Almost as many executives are acting on sustainable product design in 2023 as in 2022

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS

We communicate a carbon footprint for every product/service we sell* — 59% / 60%
Circularity is a key component of our sustainability strategy* — 58% / 57%
We are designing products so they can serve their originally intended functions for longer — 57% / 47%
We perform LCA (life-cycle assessment) on all of our products/services — 54% / 55%
We take back end-of-life products from customers to use them in the remanufacturing process/upcycle — 52% / 53%
We are redesigning products to remove fossil-fuel feedstock sources (such as coal) — 47% / 62%
We are redesigning products to have a lower impact on forests (e.g., using less virgin timber so fewer trees are cut down) — 44% / 59%

■ September 2022   ■ September 2023

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 1,001 executives in value chain functions; August–September 2023, N = 1,000 executives in value chain functions. *August–September 2022, N = 1,003 executives in corporate functions; August–September 2023, N = 1,001 executives in corporate functions.
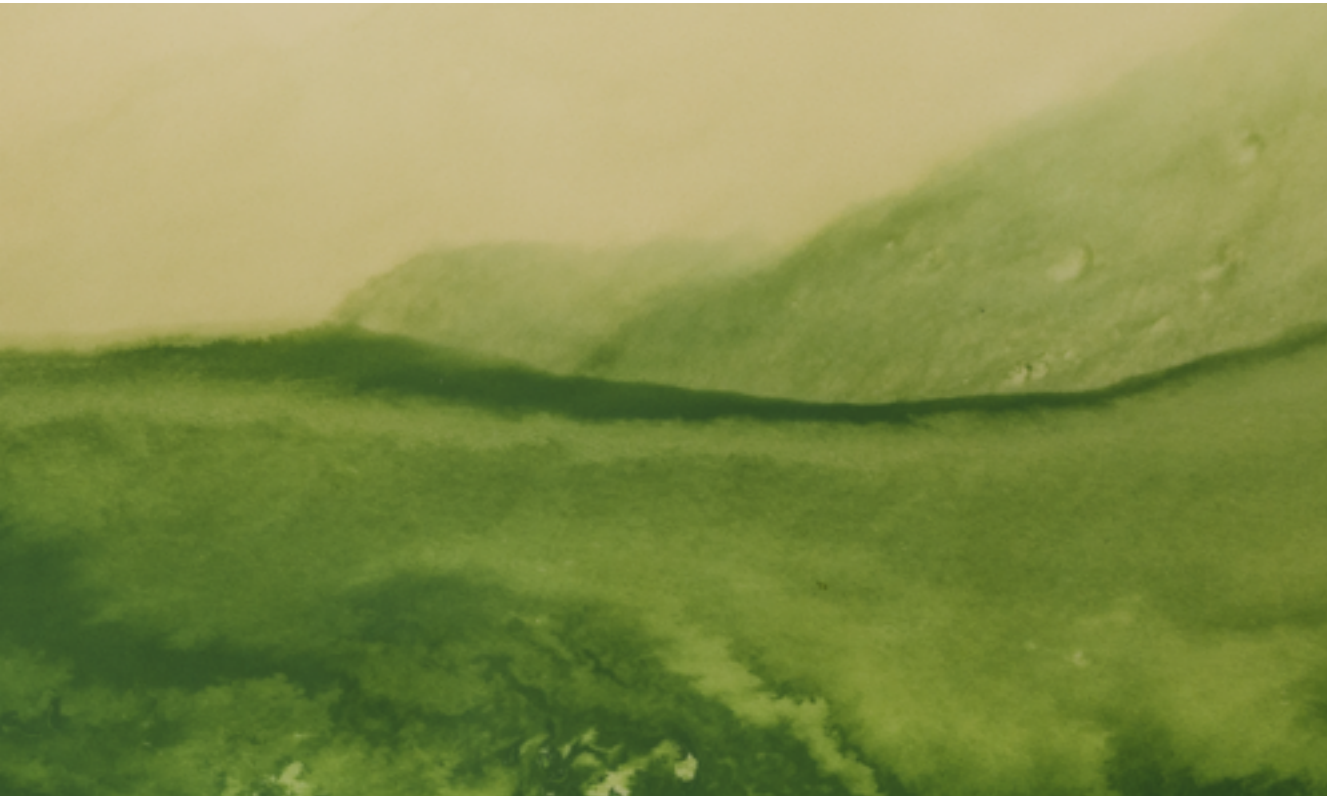
Tracking Scope 3 emissions is proving challenging

The share of executives that say their organization has the ability to measure and collect data on Scope 1 and 2 emissions has remained unchanged, year on year. For Scope 3 emissions (emissions from indirect sources in the value or supply chain), the share has declined from 60% in 2022 to 51% in 2023 (see Figure 8). Organizations in the EU are beginning to realize just how complex it is to fulfil the requirements of the now active CSRD (Corporate Sustainability Reporting Directive).

According to recent research from Capgemini and CDP (the not-for-profit charity that runs the global environmental impact disclosure system), of emissions disclosed by European organizations in 2022, 92% were Scope 3. Measures taken to reduce these customer- and supplier-related emissions only covered an average of 37% of total emissions from these categories.[21]

Daniel Schneiders, Director of Climate Program at pharmaceutical and biotechnology company Bayer, comments on the challenge: *"To achieve significant reductions in the supply chain, we are intensifying our collaboration with suppliers. We are trying to understand how we could work together so that they can reduce their emissions, in particular through shifting to renewable energies. We have also updated our Supplier Code of Conduct […] However, accessing emissions data from suppliers is a challenge as, for instance, they do not necessarily have dedicated data-monitoring processes or IT infrastructures. Additionally, lacking standards, data is hard to compare. Currently, therefore, attaining a complete and precise assessment as a foundation for steering Scope 3 emissions remains complicated."* [22]

FIGURE 8.

Fewer executives say their organization can measure and collect Scope 3 emissions data in 2023 compared with 2022

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW*
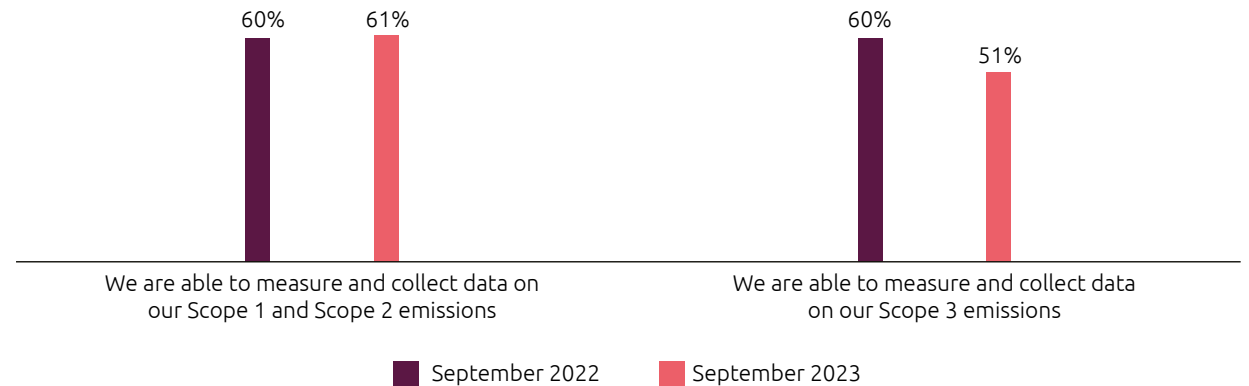
We are able to measure and collect data on our Scope 1 and Scope 2 emissions: September 2022 – 60%, September 2023 – 61%

We are able to measure and collect data on our Scope 3 emissions: September 2022 – 60%, September 2023 – 51%

Legend: September 2022, September 2023

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 1,001 executives in value chain functions; August–September 2023, N = 1,000 executives in value chain functions.
*Scope 1 emissions are direct emissions from buildings or assets owned or controlled by an organization, such as the emissions associated with fuel consumption and refrigerant gases. Scope 2 emissions relate to emissions associated with the consumption of electricity, heat, or steam. Scope 3 emissions are all other emissions generated within an organization's value chain, including upstream and downstream emissions. They occur as a result of the activities of an entity, but from sources not owned or controlled by that entity's business.

Organizations are still challenged by reporting on environmental sustainability

There has been some improvement in whether organizations have their sustainability data audited by an outside party and a decline in the use of third parties for disclosure and benchmarking (see Figure 9).
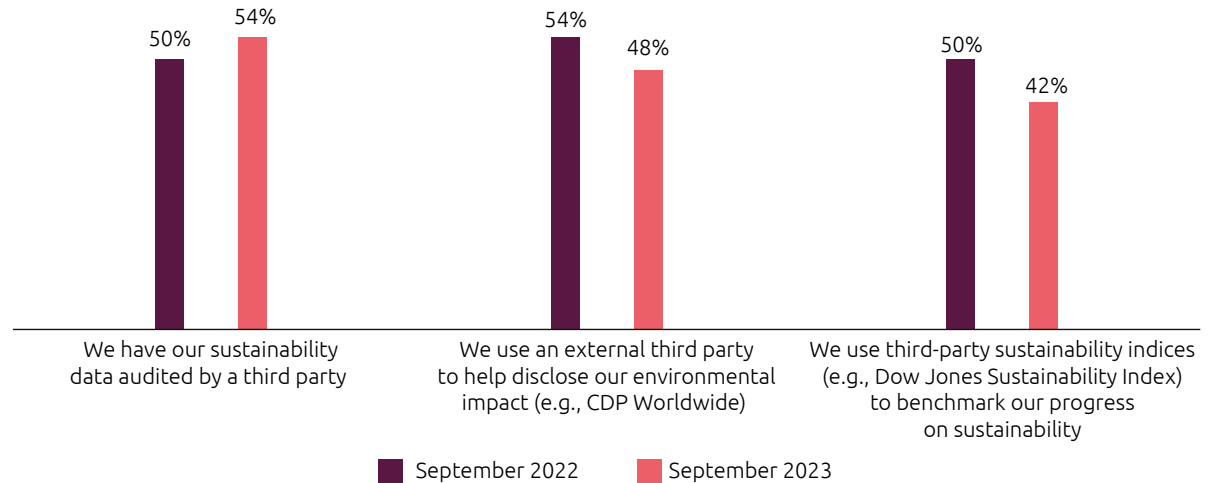
54%

of executives say that their organization has sustainability data audited by a third party

FIGURE 9.

More executives are using third parties to audit sustainability data but fewer are using them to disclose and benchmark progress

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

	We have our sustainability data audited by a third party	We use an external third party to help disclose our environmental impact (e.g., CDP Worldwide)	We use third-party sustainability indices (e.g., Dow Jones Sustainability Index) to benchmark our progress on sustainability
September 2022	50%	54%	50%
September 2023	54%	48%	42%

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 1,003 executives in corporate functions; August–September 2023, N = 1,001 executives in corporate functions.

WHO ARE THE SUSTAINABILITY LEADERS?

As seen in our research over the past three years, many organizations work on sustainability initiatives and discrete projects in silos, with no overarching strategy or governance mechanisms. Becoming a sustainable business is a long and complex process, demanding a transformation of operating models, technology, and attitudes.

To gain a sense of where organizations are in their sustainability journeys and identify the leading organizations, we mapped their sustainability maturity across three dimensions:

- **Value chain processes:**
  We assessed the sustainability initiatives and activities of organizations across the value chain, including sourcing, R&D/product design/ innovation, manufacturing, and logistics, as well as the use of technology for sustainability.

- **Sustainability enablers:**
  This dimension relates to organizations' getting their people to buy into their sustainability cultures, supported by corporate functions such as IT, finance and accounting, and sales and marketing.

- **Tech accelerators:**
  This dimension refers to the adoption of digital technologies and pathways to accelerate sustainability transformation. These include investments in AI, automation, digital twins, Internet of Things (IOT), as well as hydrogen infrastructure, gigafactories, electrification, bioeconomy, industrial-scale carbon capture, utilization, and storage (CCUS), and the transformation of grids to enable decarbonization and integration of new clean energies.

FIGURE 10.

The building blocks of sustainability transformation

VALUE CHAIN PROCESSES	SUSTAINABILITY ENABLERS	TECH ACCELERATORS
• Sourcing	• Vision and leadership	• AI/machine learning
• Innovation/R&D/ product design	• Talent	• Automation
• Manufacturing	• Culture	• AR/VR
• Logistics	• IT	• Collaboration tools
• Technology	• Finance and accounting	• 3D printing
	• Sales and marketing	• Digital twins
		• IoT/IIoT
		• Robotics
		• Hydrogen
		• Gigafactories
		• Electrification
		• Smart grids
		• Bioeconomy
		• Carbon capture, utilization, and storage

Source: Capgemini Research Institute analysis.

Based on these building blocks, we identified three cohorts by their sustainability maturity:

1. Frontrunners: better progression along the three dimensions

2. Experimenters: low maturity in either one or two of the above three dimensions

3. Beginners: low maturity along the three dimensions.

Our framework includes nearly 80 statements to assess the maturity of the organizations across the three building blocks. Please refer to the full list of statements in the appendix.

Significant progress across all three dimensions makes these organizations frontrunners. In 2022, only about one in ten organizations (11%) in our survey is categorized as a sustainability frontrunner. In our current research, this has decreased to 8% (see Figure 11). Please note that overall, organizations have improved their scores across all metrics analyzed this year compared to last year; however, within the 2023 sample of organizations, the distribution has shifted.

FIGURE 11.

In 2023, beginners constitute a higher share of organizations

DISTRIBUTION OF ORGANIZATIONS ALONG THE SUSTAINABILITY MATURITY FRAMEWORK
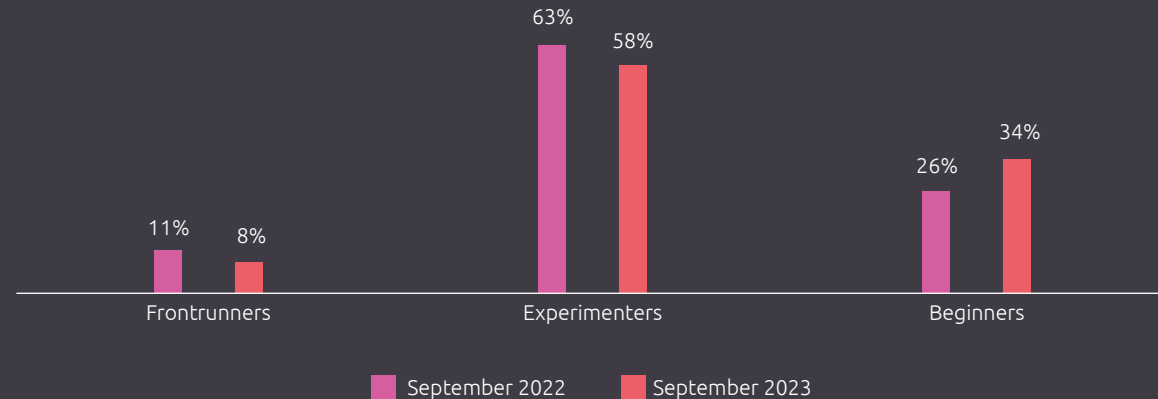
September 2022   September 2023

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 2,004 executives, N = 668 organizations; August–September 2023, N = 2,001 executives, N = 668 organizations.

We analyzed the financials of the organizations in our current research to divine whether a financial advantage can be said to accrue consistently from improved sustainable performance. As Figure 12 shows, frontrunners outperformed on total revenue per employee and EBIT margin.

- Frontrunners realized 12% higher revenue per employee compared with the average from 2021 to 2022 and 5% higher EBIT margin compared with the average from the same period.

This analysis does not imply that sustainability equates directly to profitability. Rather, it highlights that sustainability need not lead to financial disadvantage. It also demonstrates that organizations who are more successful (i.e., realize higher revenue growth, for example) have greater means to invest in sustainability.

FIGURE 12.
Frontrunners realized higher revenue per employee and EBIT margin

DIFFERENCE IN REVENUE PER EMPLOYEE FROM THE AVERAGE ORGANIZATION, BY SUSTAINABILITY MATURITY, 2021–22

Frontrunners

12%

higher than average

Experimenters

6%

higher than average

Beginners

12%

lower than average

DIFFERENCE IN EBIT MARGIN FROM THE AVERAGE ORGANIZATION, BY SUSTAINABILITY MATURITY, 2021–22

Frontrunners

5%

higher than average

Experimenters

3%

higher than average

Beginners

7%

lower than average

Source: Capgemini Research Institute financial analysis of 660 organizations (N=52 frontrunners, 384 experimenters, and 224 beginners) for FY 2021–22.
Note: The percentages indicate the difference in performance for each particular cohort compared with the average for all organizations; eight organizations were removed from the financial analysis because they had outlier data.

03

SOCIAL SUSTAINABILITY IS MOVING UP THE CORPORATE AGENDA

Social sustainability is becoming a key priority for organizations

In accordance with the UN Global Compact, we define social sustainability as the programs, initiatives, practices, and/ or processes designed to identify and manage business impacts on employees, workers in the value or supply chains, customers, and local communities. Social issues are a significant aspect of the UN's Social Development Goals (SDGs), for whose achievement businesses have a critical role to play. The SDGs cover poverty, hunger, health and wellbeing, education, gender equality, decent work and dignity, inequality, and peace and justice.

"The next wave of being responsible will entail broader action, not only in the health and environmental sectors, but also on employment, education, and other broader societal issues."

LAURENCE PESSEZ
Global Head of CSR at BNP Paribas

Over half (56%) of executives say that they are increasingly focusing on the social dimension of ESG (see Figure 13). A similar share (59%) say that their organization's sustainability projects address both environmental and social aspects. One recent study estimates that 96% of S&P 500 organizations publish ESG reports in some form today.[23] Executives at organizations with boards who are engaged in sustainability are more likely to say they are increasingly focusing on the social dimension of ESG (96% versus 56% on average). Laurence Pessez, Global Head of CSR at BNP Paribas, says: *"The next wave of being responsible will entail broader action, not only in the health and environmental sectors, but also on employment, education, and other broader societal issues."[24]*

59%

of executives say that their organization's sustainability projects address both environmental and social aspects

FIGURE 13.

Over half of executives globally say their organization is increasingly focused on social sustainability

% OF EXECUTIVES BY COUNTRY WHO AGREE WITH THE STATEMENT: WE ARE INCREASINGLY FOCUSING ON THE SOCIAL DIMENSION OF ESG (SEPTEMBER 2023)
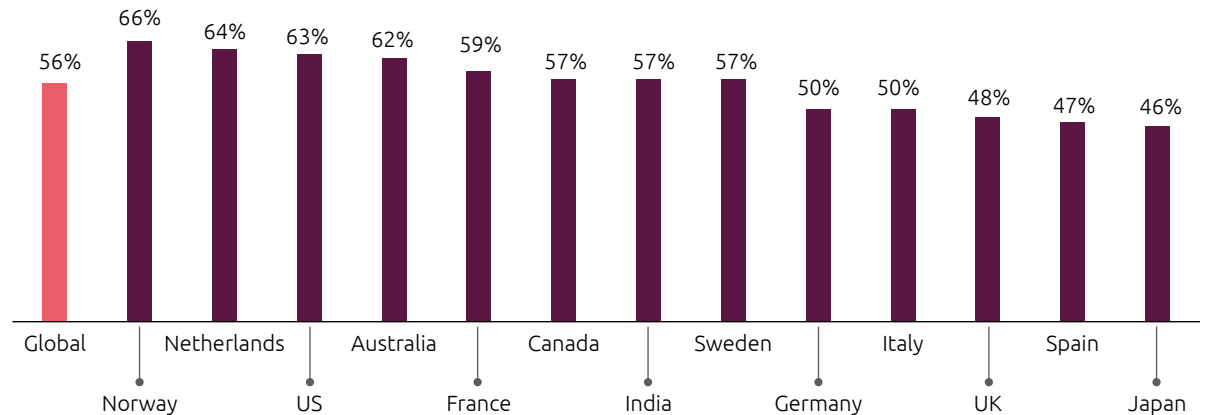
Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 2,151 executives, 717 organizations.
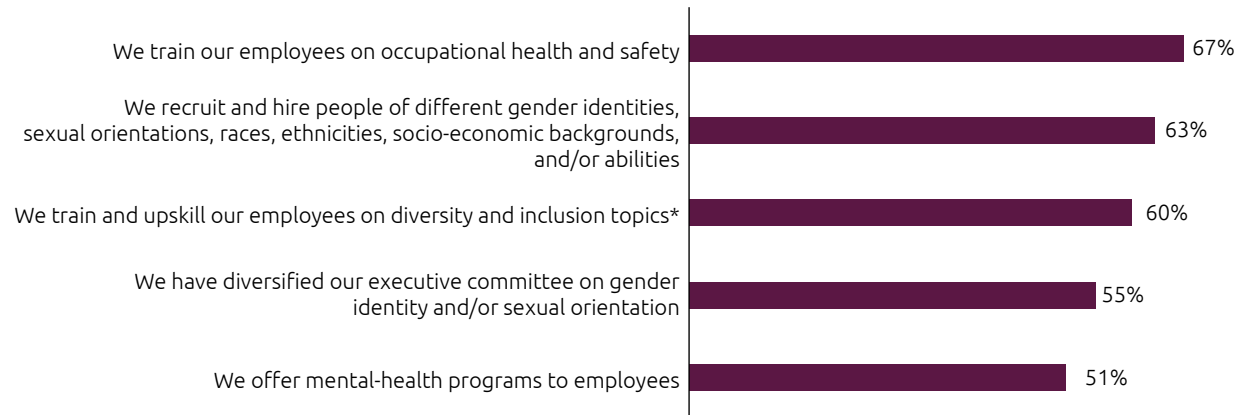
Organizations are putting the most effort into social sustainability initiatives for their own workforces

Essentially all executives (99%) say their organization is launching social sustainability initiatives/programs to benefit their workforce. Sixty-five percent are launching programs to benefit local communities. For example, 60% of executives say that their organization is training and upskilling employees on diversity and inclusion, and 51% offer mental health programs to employees (see Figure 14). Aerospace and defense leads on occupational health and safety training (74%). Public sector/government leads on mental-health programs (65%) and recruiting and hiring diverse populations (70%), while industrial manufacturing leads in diversifying its executive committee (66%).

FIGURE 14.

67% of executives say their organization trains employees on health and safety

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW (SEPTEMBER 2023)

Statement	%
We train our employees on occupational health and safety	67%
We recruit and hire people of different gender identities, sexual orientations, races, ethnicities, socio-economic backgrounds, and/or abilities	63%
We train and upskill our employees on diversity and inclusion topics*	60%
We have diversified our executive committee on gender identity and/or sexual orientation	55%
We offer mental-health programs to employees	51%

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 1,076 executives in corporate functions. *N = 990 executives in corporate functions for the statement.

Organizations are working to incorporate social sustainability initiatives benefiting their current and future employees. Telecom organization Verizon partners with organizations focused on underserved communities, such as the Society of Women Engineers and the National Society of Black Engineers, to recruit diverse talent. Verizon also fosters inclusion through ongoing diversity and inclusion (D&I) training and 10 employee resource groups (ERGs), which amplifies diverse voices and supports employee development. Consequently, their US workforce is now made up of nearly 60% women and people of color.[25] Similarly, clothing retailer Gap partnered with labor advocacy groups to promote equality for women in the manufacturing sector. The partnership resulted in improved wages and worker conditions. In participating factories, the pay gap and incidence of sexual harassment decreased by almost 20%, while access to prenatal care and productivity rose by more than 20%. [26]

Organizations are not supporting workers in the supply chain effectively

The UN Global Compact asserts that a living wage – a wage that enables workers and their families to meet their basic needs – is a driving force behind eliminating poverty. The UK-based Living Wage Foundation believes a living wage is crucial to achieving eight of the 17 SDGs; for example, those that focus on eradicating poverty, raising standards of health and wellbeing, striving for quality education and gender equality, and ensuring economic growth.[27]

Organizations must do more to hold suppliers accountable for upholding the standards they promise. Over half (64%) of executives say their organization considers the ESG ratings and environmental pledges taken by suppliers during supplier selection. However, only 38% of executives across industries say they only work with suppliers who pay a living wage (see Figure 15). For organizations with tiered-supplier operations, it may be difficult to hold all suppliers accountable owing to the disparity of legal systems in different geographies.

FIGURE 15.

Only 38% of executives globally say their organization restricts suppliers to those that pay a living wage

% OF EXECUTIVES BY INDUSTRY WHO AGREE WITH THE STATEMENT: WE ONLY WORK WITH SUPPLIERS WHO PAY A LIVING WAGE (SEPTEMBER 2023)
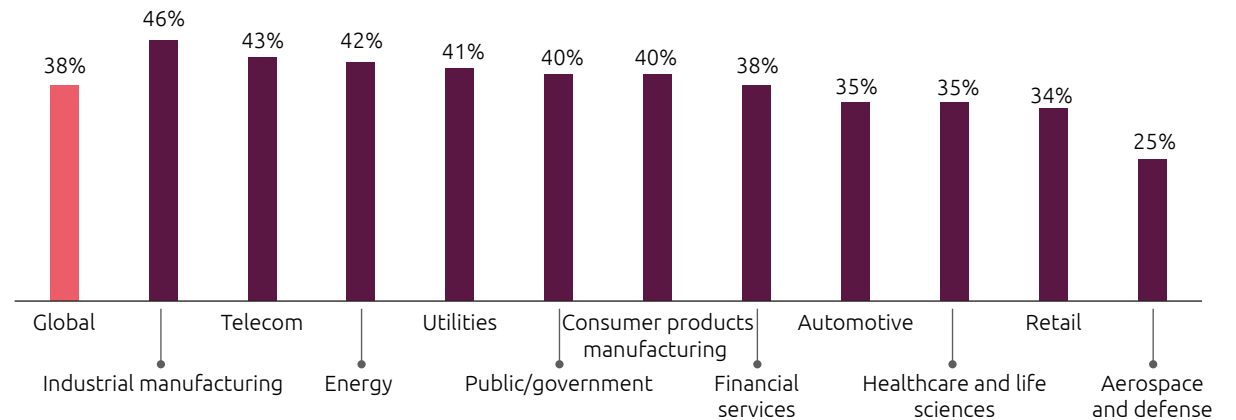
Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 1,076 executives in corporate functions.

The living wage concept is gaining momentum globally. The EU has been actively discussing the issue of fair wages. Aligned to its "European Pillar of Social Rights" that establishes the principle that EU workers have the right to a fair wage that provides for a decent standard of living, the European Commission's directive on adequate minimum wages was approved and formally adopted in October 2022. Member states have until November 2024 to align their national wages with the new rules.[28] Some US states and cities have implemented minimum wage laws that are higher than federal levels in an effort to establish a living wage, including San Francisco, Los Angles, and New York.[29] In the UK, the Living Wage Foundation promotes the concept of a living wage and has accredited 14,000 employers who voluntarily pay their employees a living wage.[30]

However, more corporate efforts are needed. According to a 2022 survey of 1,000 global organizations, only 4% pay their own workers a living wage or have targets to pay them one.[31] There are examples of organizations striving to provide a living wage. Unilever, upon reaching its target to pay all its employees a living wage by 2021, announced its commitment to do the same for all its suppliers by 2030.[32] H&M implemented a fair living wage strategy for all its tier-1 suppliers, covering eight countries and 336 suppliers, by 2019.[33] Similarly, cosmetic giant, L'Oréal, having announced implementation of its living-wage policy for its employees in 2020, intends to extend the same to its strategic suppliers by 2030.[34]

Globally, 45% of consumers say they expect organizations to ensure they only work with suppliers who pay a living wage, with millennials most commonly having this expectation (63%) (see Figure 16). By country, the greatest share of consumers in Australia (56%) expects organizations/brands to work with suppliers who pay a living wage, followed by Canada and India (55% each).
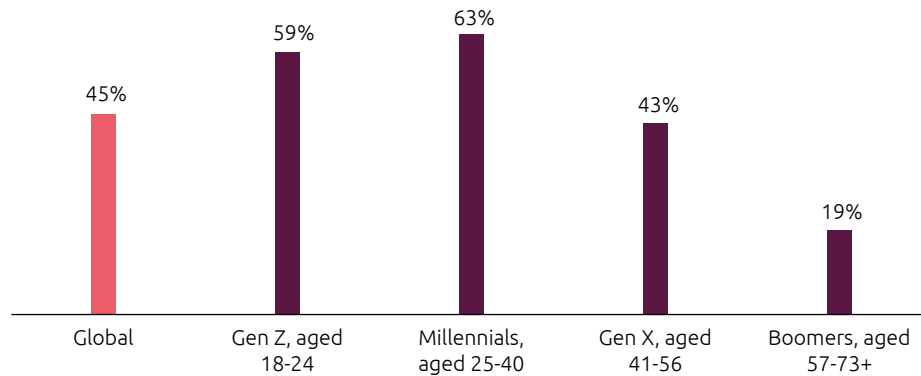
45%

of consumers expect organizations/ brands to work with suppliers who pay a living wage

FIGURE 16.

Nearly half of consumers globally expect suppliers to pay a living wage

% OF CONSUMERS WHO EXPECT ORGANIZATIONS TO ONLY WORK WITH SUPPLIERS WHO PAY A LIVING WAGE, BY AGE GROUP

% OF CONSUMERS WHO EXPECT ORGANIZATIONS TO ONLY WORK WITH SUPPLIERS WHO PAY A LIVING WAGE, BY COUNTRY
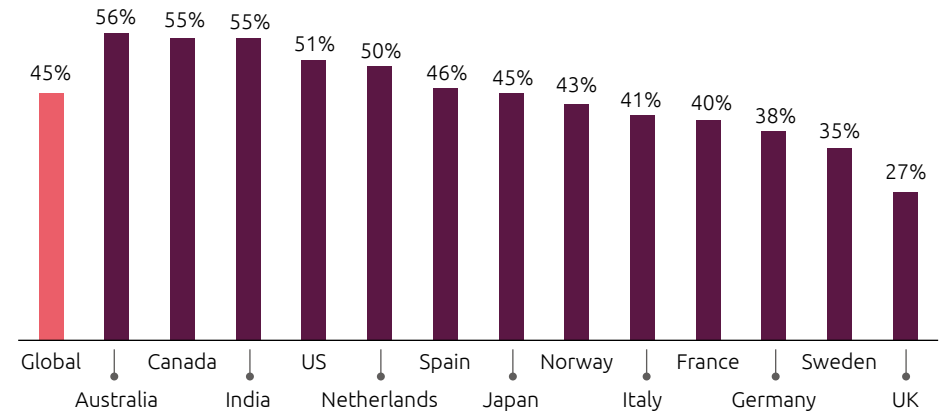
Source: Capgemini Research Institute, Consumer Survey, October 2023, N = 6,500 consumers.

Accessibility and affordability require more attention

Less than half of executives say their organization is making products/services accessible to people with disabilities, health conditions, impairments, or neurodivergence as well as affordable to their local communities (see Figure 17). Our inclusive design research found that diverse and inclusive tech teams lead to more inclusive tech design. Organizations with advanced inclusive practices are four times more likely to create inclusive products.[35]

FIGURE 17.

Only 42% of executives say their organization makes products/services accessible to people with disabilities

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW (SEPTEMBER 2023)
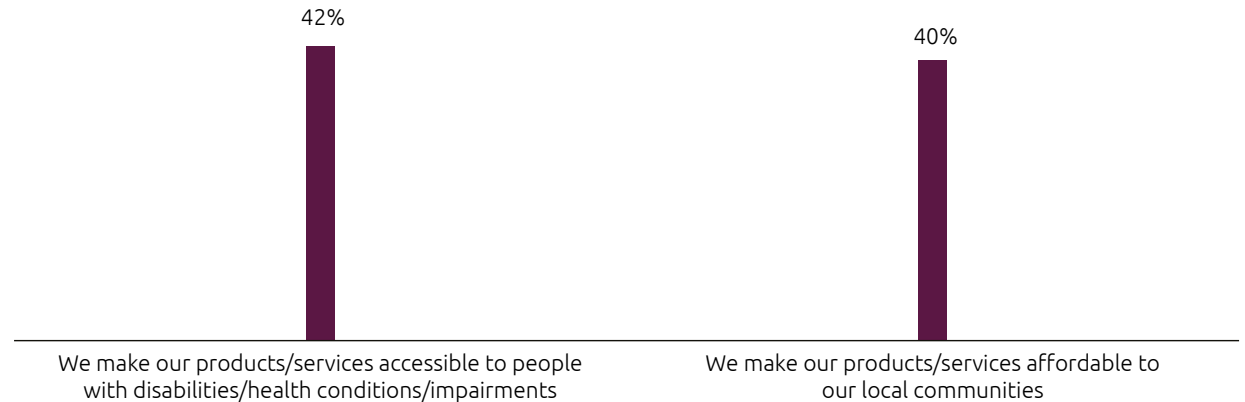
Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 990 executives in corporate functions.

After conducting an extensive survey of children aged 6–12, the Lego Group relaunched its Friends line of products with new characters representing diverse cultural backgrounds, physical and mental traits, and complex emotions, including characters with limb differences, anxiety, and neurodivergence.[36] Beauty company Lancôme recently unveiled an AI-powered make-up applicator called Hapta, which assists people with limited arm and hand mobility. Hapta is lightweight, uses sensors and motion-stabilizing technology, and can be used with a variety of make-up products, including lipstick and mascara.[37]

Based on our recent consumer research, in a difficult economic environment, 67% of consumers expect organizations to accept lower prices for essential products such as food, medicine, fuel, apparel, and utilities.[38] For key industries such as food and beverage, consumer goods, and energy, providing more affordable local pricing schemes will benefit local communities, generating goodwill and social impact. Other important industries could also follow this model. BookNook, a US-based educational software organization that develops reading and literacy instruction for secondary education, offers an equity-based pricing scheme to make its licenses more equitable and affordable for schools and districts. The organization provides discounts to schools that serve a high proportion of children eligible for free or discounted meals, a disproportionate number of whom are from low-income families and communities of color.[39]

67%

of consumers expect organizations to accept lower prices for essential products such as food, medicine, fuel, apparel, and utilities in difficult economic times

EXECUTIVES DO NOT FULLY GRASP CONSUMER SKEPTICISM

Consumers around the world are becoming more wary of greenwashing (the practice of overselling or overstating an environmental claim for a product or service). Recent Capgemini research found that this sentiment is more prevalent owing to consumers' continual exposure to such messaging as people spend more time online. It also illustrates the potential disconnect between marketing objectives and impact. In other words, when "green" products do not live up to the hype, buyers feel let down and are more likely to be skeptical about similar products.[40] Regulators, too, are becoming more stringent in setting rules and guidance for organizations advertising and marketing environmental claims. The EU and the UK have both implemented new or updated regulations to combat greenwashing and protect consumers in 2023.

However, executives in our survey do not appear overly concerned with accusations of greenwashing. About half (51%) follow external guidelines on responsible communication and advertising to avoid such issues (up from only 49% in 2022). Only 17% believe their organization's top leaders are concerned about the possibility that the public perceives their sustainability initiatives with suspicion.

51%

of executives say that their organization follows external guidelines on responsible communication and advertising to avoid accusations of greenwashing

We also asked executives how consumers viewed their organizations' sustainability initiatives. Less than one-fifth (17%) of executives say they believe consumers perceive their initiatives as greenwashing. This sentiment is most prevalent in the US (35%) and least in Japan (6%). In contrast, when we asked consumers directly how they felt, a third said they believe organizations/brands greenwash their initiatives (see Figure 18).
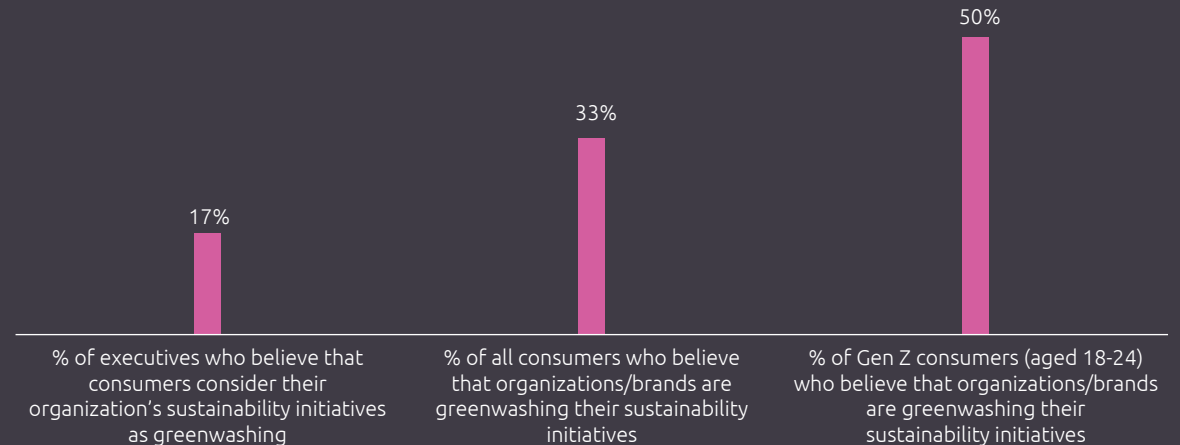
17%

of executives say they believe consumers perceive their initiatives as greenwashing

FIGURE 18.

There is a perception gap between executives and consumers on sustainability initiatives

% OF EXECUTIVES AND CONSUMERS WHO BELIEVE THE STATEMENTS BELOW

| 17% | 33% | 50% |
| % of executives who believe that consumers consider their organization's sustainability initiatives as greenwashing | % of all consumers who believe that organizations/brands are greenwashing their sustainability initiatives | % of Gen Z consumers (aged 18-24) who believe that organizations/brands are greenwashing their sustainability initiatives |

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 2,151 executives, 667 organizations. Consumer Survey, October 2023, N = 6,500 consumers.

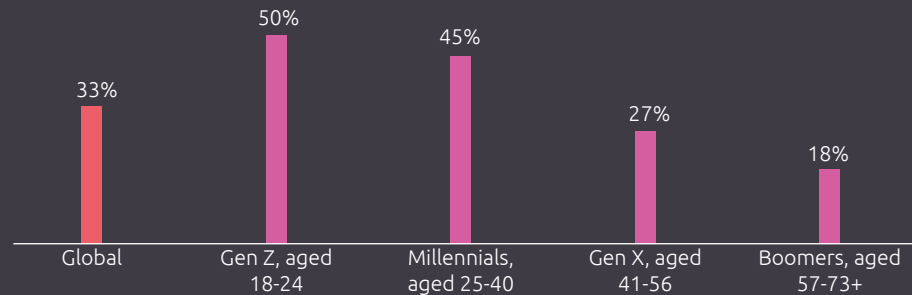Our research reveals that consumers' skepticism trends downward with age. By country, India has the greatest share of consumers (45%) who believe that organizations/brands are greenwashing, followed by Canada (43%). Consumers in the UK are the least suspicious that organizations/brands are engaging in greenwashing, perhaps owing to stringent regulations regarding green claims in those countries (see Figure 19).
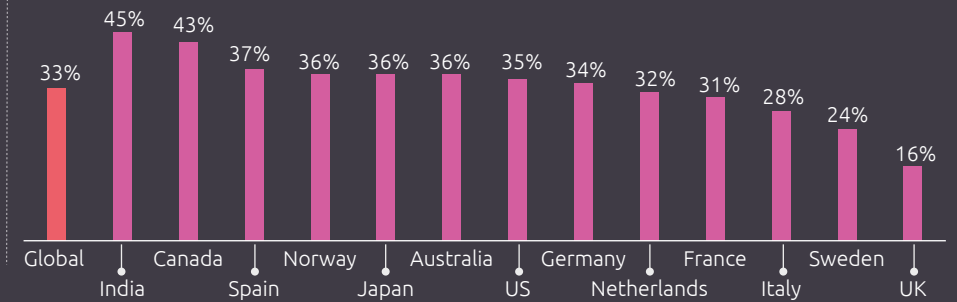
FIGURE 19.

Gen Z consumers are most likely to believe organizations/brands are greenwashing

% OF CONSUMERS WHO BELIEVE THAT ORGANIZATIONS/BRANDS ARE GREENWASHING THEIR SUSTAINABILITY INITIATIVES, BY AGE GROUP

% OF CONSUMERS WHO BELIEVE THAT ORGANIZATIONS/BRANDS ARE GREENWASHING THEIR SUSTAINABILITY INITIATIVES, BY COUNTRY
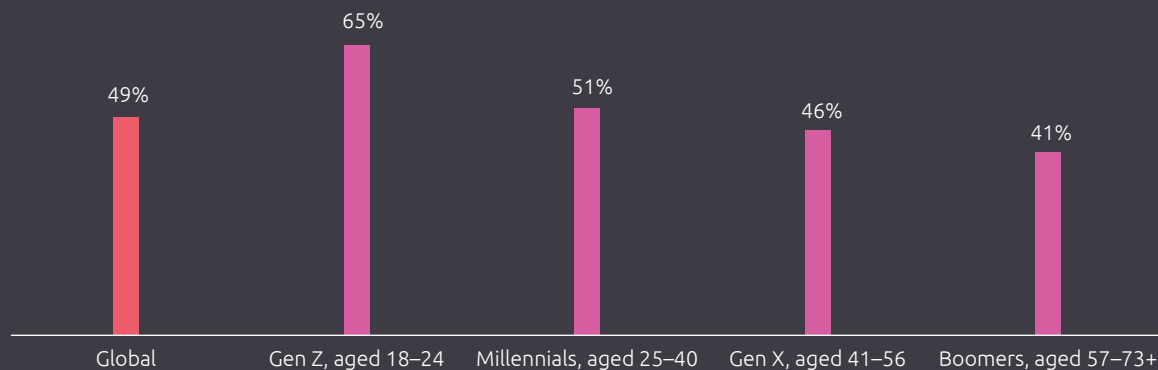

Source: Capgemini Research Institute, Consumer Survey, October 2023, N = 6,500 consumers.

Further, our research reveals that 49% of consumers never, rarely, or only sometimes trust an environmental claim about a purchase they are considering, rising to 65% among Gen Z consumers (see Figure 20). After recently facing accusations of "virtue signaling" in certain products' marketing campaigns, Unilever signaled a change in its strategy by not "force-fitting" purpose to every brand. Instead, the company will focus on shorter-term impacts in four key pillars: climate, nature, plastics, and livelihoods, and will give brand managers more authority to set metrics and track progress.[41,42]

FIGURE 20.

65% of Gen Z consumers say they never, rarely, or only sometimes trust an environmental claim

% OF CONSUMERS WHO TRUST AN ENVIRONMENTAL CLAIM ABOUT A PRODUCT THAT THEY WANT TO PURCHASE NEVER, RARELY, OR ONLY SOMETIMES, BY AGE GROUP

Global	Gen Z, aged 18–24	Millennials, aged 25–40	Gen X, aged 41–56	Boomers, aged 57–73+
49%	65%	51%	46%	41%

Source: Capgemini Research Institute, Consumer Survey, October 2023, N = 6,500 consumers.

04 | GENERATIVE AI HAS PROMISING USE CASES FOR SUSTAINABILITY

Digital technologies are key to organizations achieving their climate and social ambitions. In our survey, 54% of executives say that their organization uses technology such as AI, automation, or digital twins to achieve their sustainability agenda. According to a report from the International Telecommunications Union (ITU, a UN body), digital technology could help reduce global carbon emissions by 17%.[43] *"Only digital technologies move at the speed and scale necessary to achieve the kind of dramatic reduction in emissions that we need to see in the next 10 years,"* says Inger Andersen, UNEP Executive Director.[44]

While wide-ranging digital technologies can accelerate the transition to a green economy, from automation and IoT to blockchain and digital twins, AI in particular is rapidly gaining momentum in the fight against climate change. AI can make more precise weather predictions, track air quality, and measure the carbon footprint of products/services or even supply chains, while enabling smarter decision-making and real-time monitoring.[45]

AI can also be used to improve accessibility for people with disabilities or other impairments. For example, using speech or image recognition, AI technologies can enhance communication, navigation, and interaction for those with hearing, vision, mobility, and other disabilities. Ava, an AI-powered transcription app, provides deaf and hard-of-hearing people live captions of any conversations in the periphery.[46]

Further, the implications of utilizing generative AI to achieve sustainability targets will be far-reaching. For example, generative AI can create countless design prototypes in minutes, reducing waste during the process. Similarly, it can help analyze a building's design, construction materials, and environmental conditions to generate a detailed energy analysis, identify potential energy savings, and suggest improvements to meet sustainability standards.[47]

"Only digital technologies move at the speed and scale necessary to achieve the kind of dramatic reduction in emissions that we need to see in the next 10 years."

INGER ANDERSEN
UNEP Executive Director

Generative AI is expected to be a core focus within sustainability strategies

Our recent research on generative AI use cases across industries found that nearly all executives (96%) in our survey cited generative AI as a hot topic of discussion in their respective boardrooms, making it probably the fastest new technology to garner such high-level interest.[48] In our current research, over half (59%) of executives believe that generative AI will play a key role in their organization's sustainability transformation efforts. This trend is consistent across industries, with financial services (67%) showing the highest share of executives saying so (see Figure 21). Our recent research also revealed that organizations have high sustainability expectations of the technology, including a projected 9% reduction in carbon footprints at organizational level within the next three years.[49]

FIGURE 21.

59% of executives globally believe generative AI will be central to their sustainability efforts

% OF EXECUTIVES BY INDUSTRY WHO AGREE WITH THE STATEMENT: GENERATIVE AI WILL PLAY A KEY ROLE IN OUR ORGANIZATION'S SUSTAINABILITY TRANSFORMATION EFFORTS (SEPTEMBER 2023)
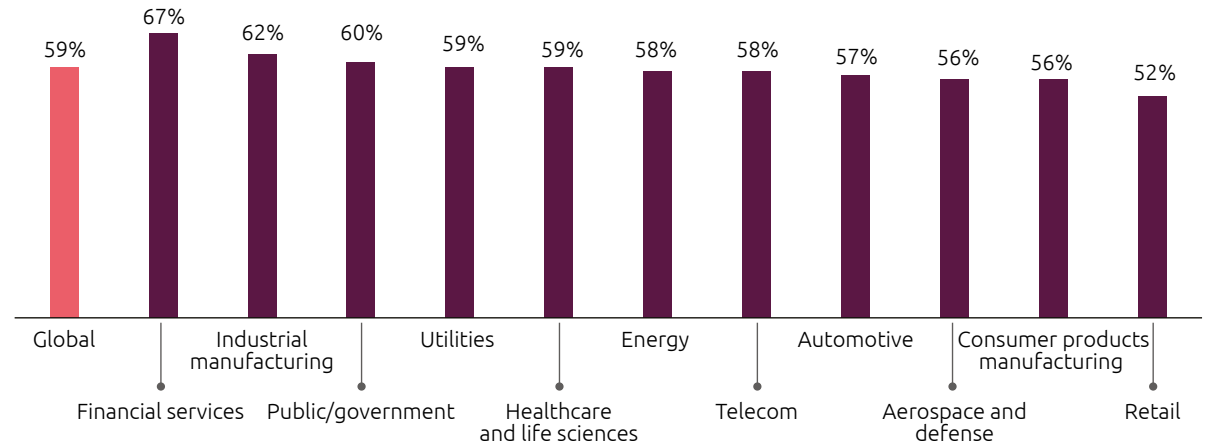
Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 2,151 executives, 717 organizations.

Organizations have already started incorporating generative AI into their sustainability strategies across operations, sales and marketing, logistics, design, and data.

Forecast demand to reduce waste

- Generative AI models can analyze historical demand patterns, market trends, and external factors to generate demand forecasts, thereby reducing stockouts, waste, and carrying costs. This also helps in limiting the environmental impact of excess production.[50]

Optimize logistics to reduce emissions

- Generative AI algorithms can enable optimization of transportation routes by considering factors such as shipment volume, vessel capacities, product characteristics, and geographical constraints to determine the most efficient routes. This would lead to cost, time, and fuel savings and eventually reduce the carbon emissions associated with logistics.[51]

Generate more sustainable design prototypes

- Airbus uses AI algorithms in its generative design process to develop lighter-weight parts for its aircraft, resulting in lower fuel consumption and, consequently, lessened environmental impact. The initial design was 45% lighter than the traditional part and is projected to reduce Airbus's annual CO_2 emissions by nearly 500,000 metric tonnes (mt) if rolled out across its A320 fleet.[52]

Automate sustainability reporting

- Generative AI tools can make corporate social responsibility (CSR) reporting easier for organizations, creating a draft report for teams to check and refine. C3 AI, a US start-up, uses generative AI to unify and store disparate ESG data and automate reporting.[53]

Protect against biodiversity loss

- Researchers from the University of Valencia, the Instituto de Física Corpuscular in Spain, and the University of Sussex experimented with generative AI to analyze species coexistence patterns in vegetation patches. Species coexistence is important to biodiversity because it demonstrates "niche complementarity"(how two or more species persist and interact in an environment together). The researchers trained two generative AI systems to create simulated possible patch compositions and evaluate them under increasingly complex theoretical ecological conditions.[54]

Improve accessibility

- Internet accessibility can be a major challenge for people with sight problems, especially if a website does not support screen readers (software that allows blind or visually impaired people to read text displayed on screens). Generative AI may be used to improve information access as it could help visually impaired people understand what they are looking at by verbalizing images on a website. In March, powered by OpenAI's GPT-4 language model, mobile app Be My Eyes launched Virtual Volunteer, a digital assistant for people who are blind or who have low vision. Users share images and the assistant answers questions about the image and provide instantaneous, conversational visual assistance for a wide variety of tasks.[55]

Many organizations have taken action against the negative environmental impacts of generative AI

The carbon footprint of generative AI models is massive and extends beyond training. Our previous research reveals that most executives (78%) are aware that generative AI can have a larger carbon footprint than traditional IT programs.[56] Currently, the net impact of generative AI on carbon emissions is unquantifiable but, even so, over half of executives (57%) in our current survey say their organization has started to take steps to mitigate the environmental impact of using generative AI models. Even though generative AI is still in its infancy, the rapid adoption of generative AI technologies by organizations has them moving at pace. Initial mitigation steps could include developing guidelines for responsible use of generative AI, limiting the use of generative AI tools to selected employees/teams, investing in renewable energy, or offsetting its impact through carbon credits, among other mitigation measures. Aerospace and defense takes the lead in this at 70%, closely followed by telecom (65%), while half of executives in financial services, utilities, and consumer products manufacturing say the same (Figure 22).

FIGURE 22.

Over half (57%) of executives globally say their organization has started to mitigate the environmental impact of generative AI

% OF EXECUTIVES BY INDUSTRY WHO AGREE WITH THE STATEMENT: WE HAVE TAKEN STEPS TO MITIGATE THE ENVIRONMENTAL IMPACT OF USING GENERATIVE AI MODELS (SEPTEMBER 2023)
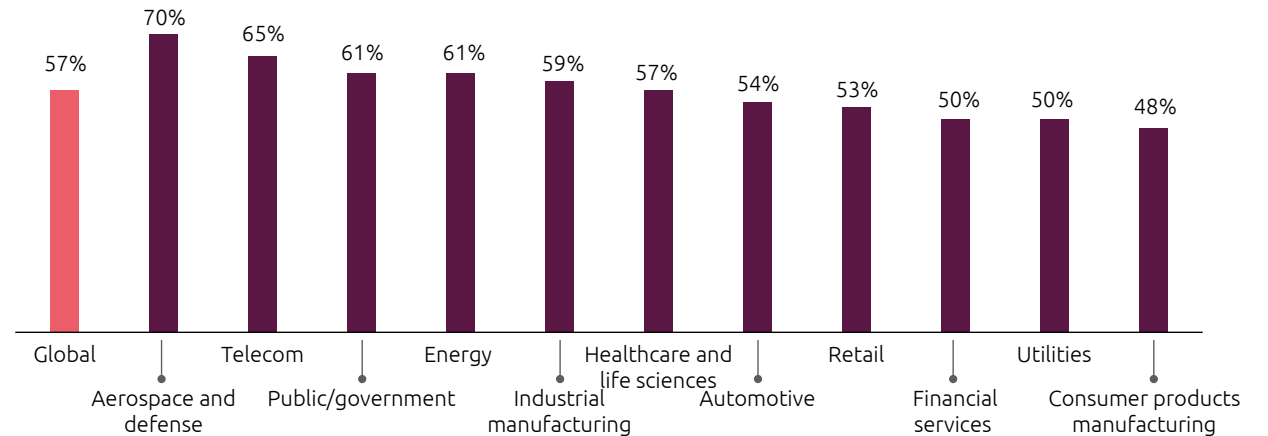
Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 1,075 executives from value chain functions.

05 | RECOMMENDATIONS: HOW ORGANIZATIONS CAN ACCELERATE THEIR SUSTAINABILITY TRANSFORMATIONS

To transform effectively requires enterprise-level coordination, functional involvement, and an overhaul of the operating model and business processes. Last year's report focused on specific recommendations and actions for eight C-suite executives in order to lay the groundwork for an enterprise-wide sustainability transformation. The recommendations we shared hold true today:

- The CEO must make sustainability a business priority
- The CFO must articulate the business case for sustainability and ensure it is understood throughout the organization
- The CMO must implement protocols to avoid greenwashing sustainability credentials
- The chief design/product officer needs to embed sustainability as a core design principle
- The chief procurement/supply chain officer needs to work with suppliers to ensure they achieve sustainability goals
- The CTO/CIO must strengthen sustainable IT initiatives
- The COO needs to build the foundation of the sustainable organization

- And, of critical importance, the CHRO needs to staff for sustainability, which requires new skill sets and a new leadership model.
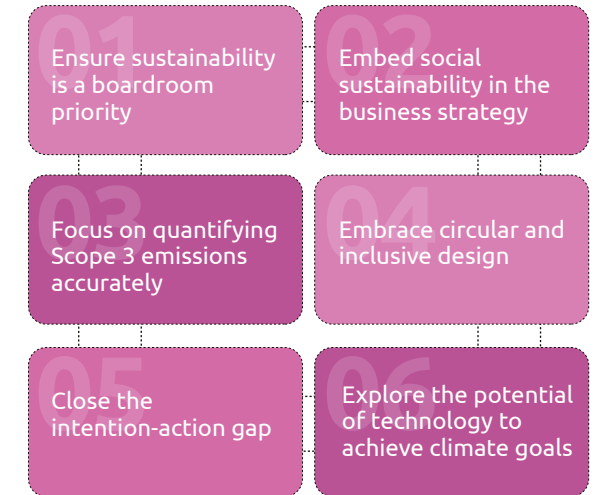
Each leader must ensure a solid foundation within their departments and teams and ensure co-ordination between teams. The current research has led us to make some additional recommendations to last year's list (see Figure 23).

59%

of executives say that their board of directors is actively engaged with sustainability strategy

FIGURE 23.

Key actions for sustainable and inclusive transformation

01 Ensure sustainability is a boardroom priority	02 Embed social sustainability in the business strategy
03 Focus on quantifying Scope 3 emissions accurately	04 Embrace circular and inclusive design
05 Close the intention-action gap	06 Explore the potential of technology to achieve climate goals

Source: Capgemini Research Institute analysis.

Ensure sustainability is a boardroom priority

In the 2022 report, we emphasized the importance of boards according long-term priority to sustainability. The good news is that most executives in this year's survey (59%) agree that their board of directors is actively engaged with sustainability strategy. Our current research reveals that these organizations are likely to have progressed further on their transformation journeys, with a focus on social sustainability. For example:
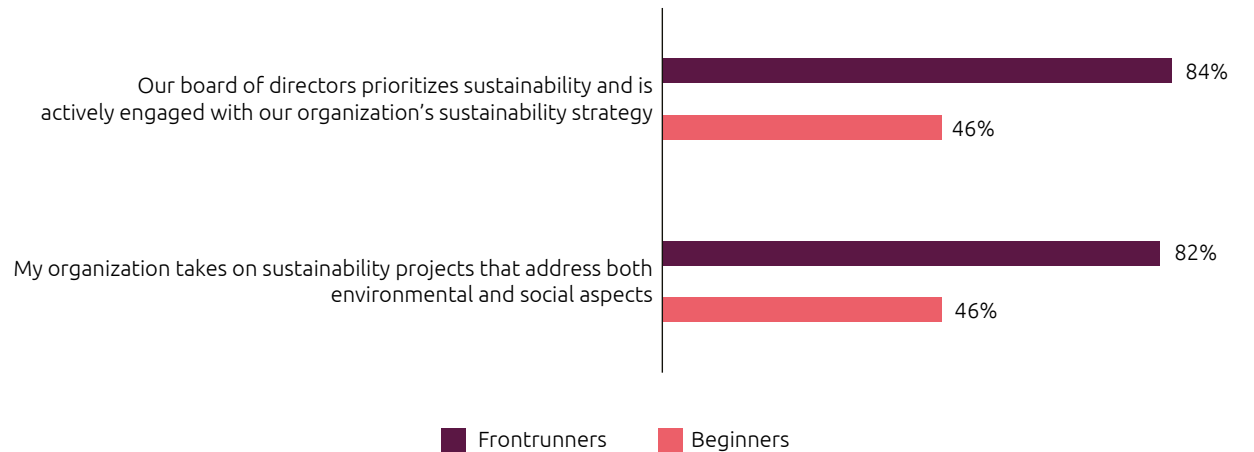
- 71% of executives at organizations with engaged boards say they are redesigning their business or operating models to be more sustainable (compared with 57% on average)
- 88% of executives at organizations with engaged boards say that, by 2040, they will have completely new business models that are more sustainable (versus 53% on average)
- 96% of executives at organizations with engaged boards say they are focusing on the social dimension of ESG (compared with 56% on average)

The change in perspective to accept sustainability as an investment opportunity should drive consensus between the board and the C-suite. Frontrunners have an edge when it comes to engaged boards and directors and in combining environmental and social sustainability objectives (see Figure 24).

FIGURE 24.

Eight in 10 frontrunners have engaged boards and projects addressing environmental and social sustainability

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

Our board of directors prioritizes sustainability and is actively engaged with our organization's sustainability strategy — Frontrunners 84%, Beginners 46%

My organization takes on sustainability projects that address both environmental and social aspects — Frontrunners 82%, Beginners 46%

■ Frontrunners   ■ Beginners

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 668 organizations, 56 frontrunners, 226 beginners.

It is also important to ensure the sustainability business case is well articulated and understood by the board, management team, and employees as well as external audiences such as investors and customers. This research reveals that executives across functions have a greater appreciation for, and clarity in, the sustainability business case compared to last year. With more stringent regulations coming into effect (e.g., EU CSRD) that are changing the operating environment, executives are realizing that their organization's license to operate will depend, in part, on their ability to report on sustainability data. A clear business case will also help in fulfilling regulators' push for "double materiality," a concept that considers how a company's actions impact society and the environment and how sustainability and climate affect its business. As part of CSRD requirements, organizations must conduct a double materiality assessment, which will help them determine which sustainability issues are material and should be included in their reporting.[57]

Embed social sustainability in the business strategy

As prioritization of the UN SDGs gains traction and climate and social objectives become intertwined, organizations must take care not to overlook the social sustainability agenda. Social objectives should be integrated into strategy with the same level of priority. Organizations must recognize the urgency of developing a social sustainability strategy. A recent study of 2,000 of the world's most influential organizations found that only 1% are positioned to meet the UN's 2030 SDGs.[58]

Taking the UN Global Compact definition of social sustainability, there are four main audiences that organizations must consider: employees, customers, supply chain workers, and local communities. Our research reveals that organizations are acting most effectively to benefit their own workforces, but that they can do more to support workers in their supply chain and customers in their local communities. Organizations can work to update suppliers' criteria to include a living wage dimension, and also strive to make products/services more accessible and inclusive to people with disabilities, health conditions, or impairments. Frontrunners are leading in engaging employees in learning and supporting local communities with education and policy (see Figure 25).

FIGURE 25.

Frontrunners have advanced social sustainability actions

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

Engaging employees in learning and development is a top priority for our leadership — Frontrunners 84%, Beginners 55%

We support education and skills initiatives in our local communities — Frontrunners 77%, Beginners 48%

We promote public policies that support social sustainability — Frontrunners 73%, Beginners 46%

■ Frontrunners   ■ Beginners

Focus on quantifying Scope 3 emissions accurately

To fully understand their Scope 3 emissions and identify levers for decarbonization, organizations must take a comprehensive view of their supply and value chain impacts. Catherine Bals, Sustainability Department Lead at Proximus, a telecom organization, says: *"Our major challenge today is addressing our Scope 3 emissions ... First, we want to encourage external change and action from our suppliers and customers. For our suppliers, this means setting up a supplier-engagement program and integrating new requirements into our contracts and RFPs [requests for proposals], such as the obligation to have SBTi-approved targets. We want to nudge our customers to repair more and reduce frequency of renewal. We want to make them aware of the impact of their equipment and lifestyle choices on the climate."[59]* Frontrunners have an edge in terms of employees understanding the environmental impacts of their business and measuring Scope 3 emissions (see Figure 26). Organizations can take a data-centered approach and focus first on:

- Identifying Scope 3 hotspots focusing on critical data and measurements;
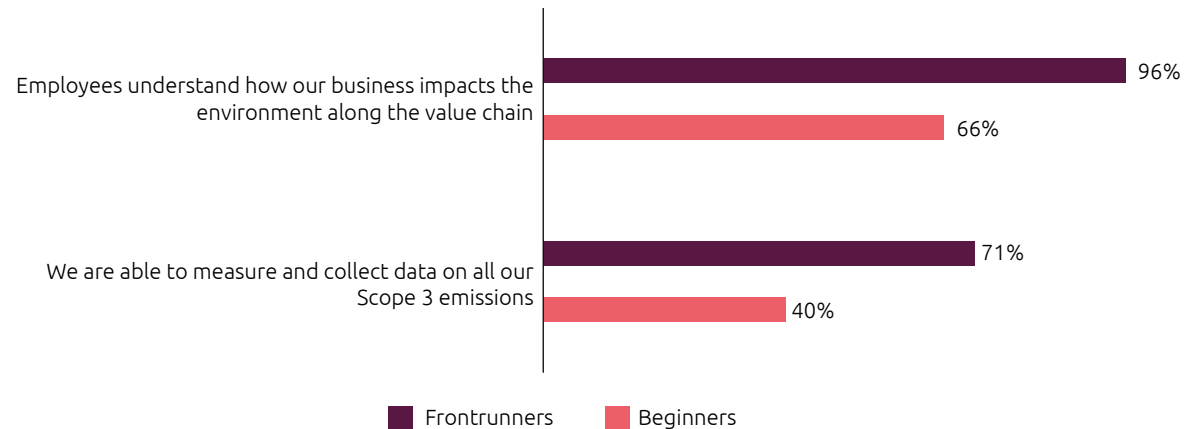
- Establishing a shared, single source of emissions data that centralizes the storage and collection of Scope 3 data; and

- Equipping teams with skills and tools to understand and use Scope 3 emissions data in business decisions.

FIGURE 26.

Seven in 10 frontrunners are tracking Scope 3 emissions

% OF EXECUTIVES WHO AGREE WITH THE STATEMENTS BELOW

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2023, N = 668 organizations, 56 frontrunners, 226 beginners.

# Embrace circular and inclusive design

In the 2022 report, we stressed the importance of embedding sustainability as a core design principle. This year's research reveals limited or declining movement on key parameters within product design. Certain measures have advanced since last year, such as removing fossil-fuel feedstock sources and reducing use of virgin timber. In the broader concepts of embedding circularity in strategy, performing life-cycle assessment, and designing products with longer life cycles, we have seen stagnation or even decline.

Organizations must think beyond isolated design problems and consider their design processes as a whole, mitigating points of social and environmental impact through the entire product life cycle. Organizations must embrace circular principles in their business models to reduce waste, extend the lifespan of their products, and appeal to sustainability-conscious consumers. Dr. Caroline Cassignol, Senior Key Expert Research Scientist at Siemens Technology, emphasizes the need for a mindset shift in product design and development: *"We grew up in a world dominated by the linear economy. Now, we need to shift to a circular economy mindset. We must question everything we do."*[60]

It is also critical that organizations embrace inclusive design within product development and ensure design teams have diverse representation, so they are well-positioned to build inclusive products.

Close the intention-action gap

In order to justify their environmental and social claims, organizations must close the gap between stated goals and concrete actions. There is a real risk of accusations of greenwashing. It can affect the bottom line, derail public confidence, and risk huge fines from regulators. In our current research, one third of consumers suspect that organizations/brands are greenwashing their sustainability initiatives and 48% never, rarely, or only sometimes trust environmental claims about potential purchases. A Harvard Business Review study found that perceptions of greenwashing not only damage an organization's reputation, but also negatively impact how customers experience its products or services. The research estimates that organizations which stakeholders perceive to be greenwashing suffer, on average, a 1.34% drop in their American Customer Satisfaction Index (ACSI) score, triggering accusations of corporate hypocrisy.[61]
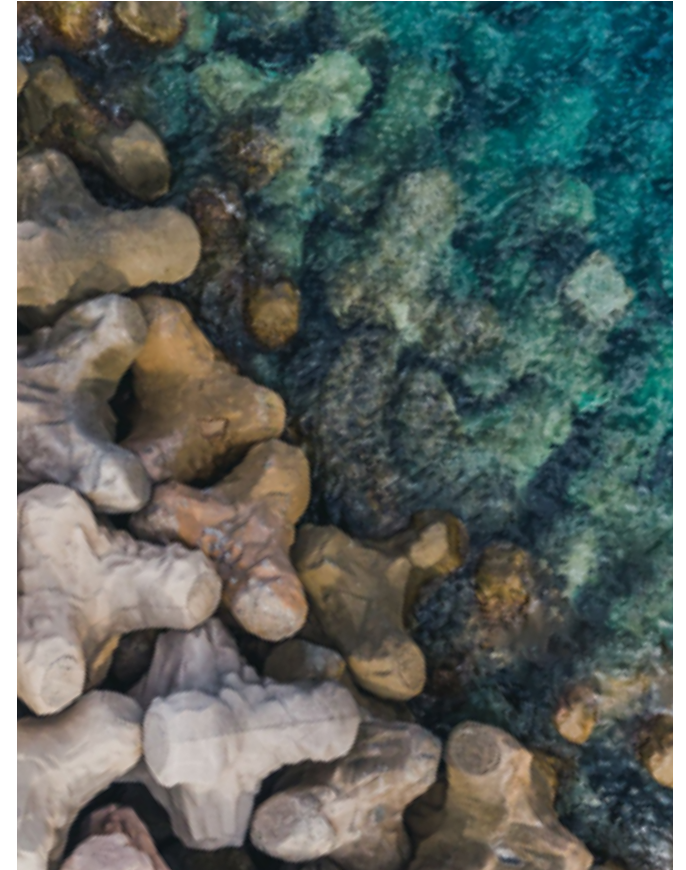
Explore the potential of technology to achieve climate goals

Our research reveals that the majority (59%) of executives believe that generative AI will play a key role in their organization's sustainability transformation efforts. While it is still too early to fully quantify its benefits

some use cases already exist. For example, generative AI for sustainability can result in design and operational efficiencies, leading to reduced emissions. However, it will be important that organizations continue to mitigate the negative environmental impacts of training and deploying generative AI models as their use becomes more widespread. Organizations should also explore how generative AI can improve the accessibility and inclusivity of products and services. This requires that individuals with disabilities or other impairments play an active role in shaping the technology's role within the organization.

In addition, climate technologies – defined as technologies specifically designed to tackle environmental challenges including climate change, resource depletion, and biodiversity loss and mitigate their impact – will be critical to achieving ambitions. Examples of climate tech include renewable energy, carbon storage, biofuels, low-carbon hydrogen, and synthetic biology, among others. These innovative technologies will drive a significant portion of organizations' reduction in emissions, and investing in climate tech will be as essential to reaching net zero and other climate goals as investing in new business and operating models.

59%

of executives believe that generative AI will play a key role in their organization's sustainability transformation efforts

Conclusion

Our research reveals that growing numbers of organizations across industries understand the importance of sustainability, are clear on the business case, and acknowledge the benefits of incorporating sustainable practices and processes into their businesses. This rapid improvement in sentiment in one year's time is significant; however, in 2023, translation of this understanding into increased investment lags. While more organizations are setting goals and priorities, they must step up their actions on Scope 3 emissions, sustainable product design, and reporting and disclosing sustainability data while at the same time maintain their increasing focus on social sustainability. This is a pivotal time in the battle against climate change, the scarcity of vital resources, and the alarming loss of biodiversity. It is also now critical to promote equity and social justice, health and wellbeing, and economic stability as pillars of social sustainability and sustainable development. The role of organizations in curbing the detrimental impacts of industrial and human activity on our planet is paramount. There is a pressing need for more daring and expansive sustainability implementation. Becoming a truly sustainable enterprise necessitates enterprise-wide transformation, with a keen focus on evaluating the entire value chain through a sustainability lens. Frontrunners have gained an advantage, but others can emulate them to expedite their journeys towards sustainability.
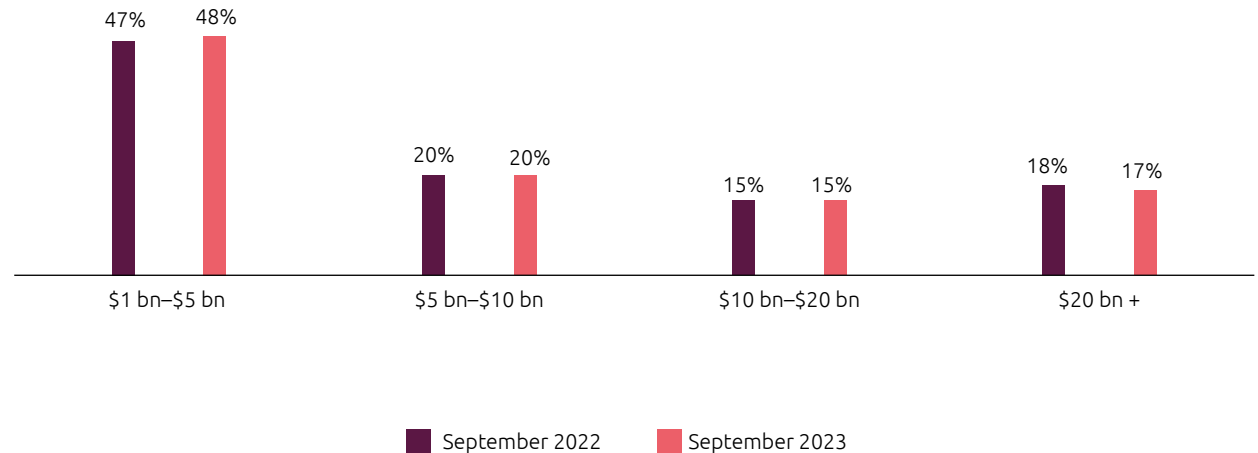
Research methodology

We surveyed 2,151 executives employed at 718 organizations, each with more than $1 billion in annual revenue, across 13 countries in North America, Europe, and Asia-Pacific and in 11 industries. Executives surveyed were director level and above and 50% were from corporate functions, such as strategy, sustainability, sales, and marketing; 50% were from value chain functions, such as product design, R&D, procurement, and logistics. We surveyed three executives from every organization. The global survey took place in August and September 2023. The distribution of executives and their organizations is provided in the following figures. We also conducted a global survey of 6,500 consumers over the age of 18 across the 13 countries.
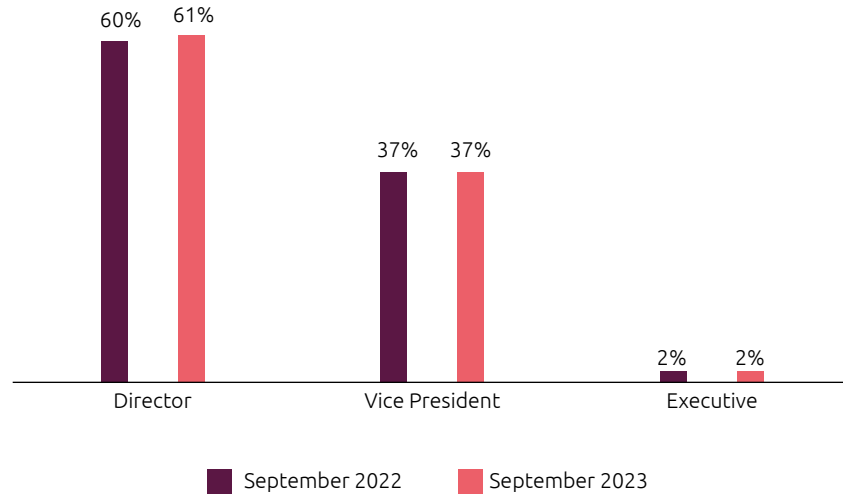
The study findings reflect the views of the respondents to our online questionnaire for this research and are aimed at providing directional guidance. Please contact one of the Capgemini experts listed at the end of the report to discuss specific implications.

*Note that, for any chart that compares 2022 and 2023 data, the sample excludes respondents from Norway, as they did not partake in the 2022 survey; hence, in these analyses, N = 2,001 respondents and 668 organizations.
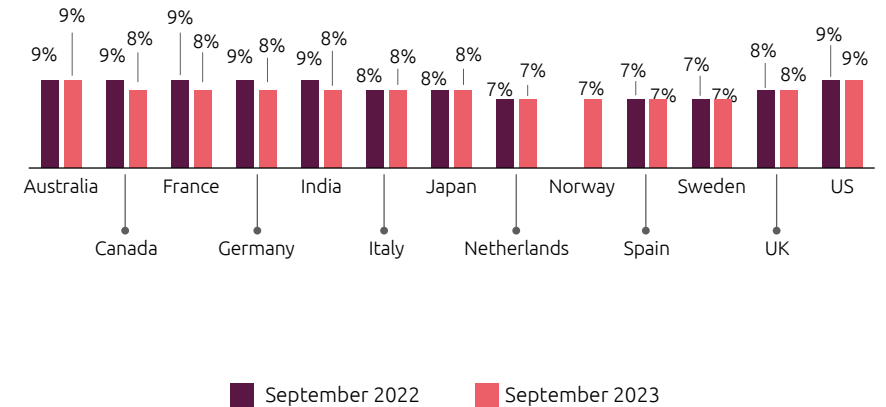
% OF EXECUTIVES BY ORGANIZATION ENTERPRISE-LEVEL REVENUE, IN USD
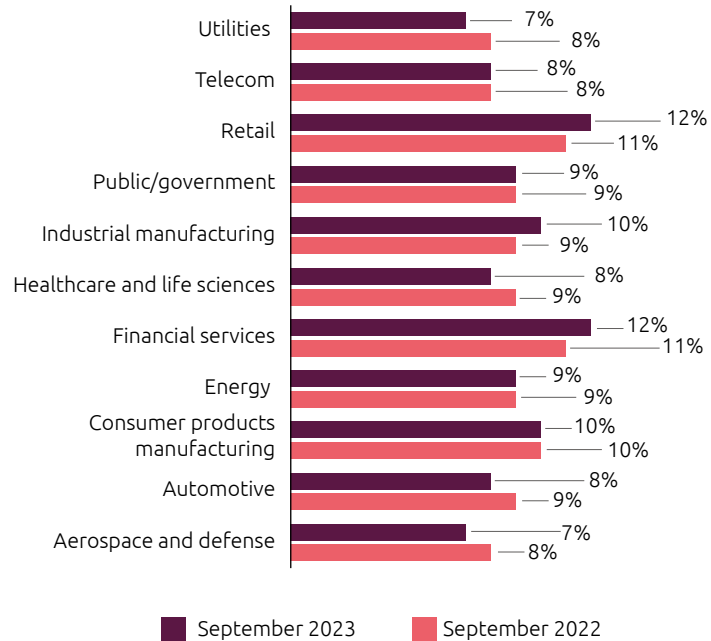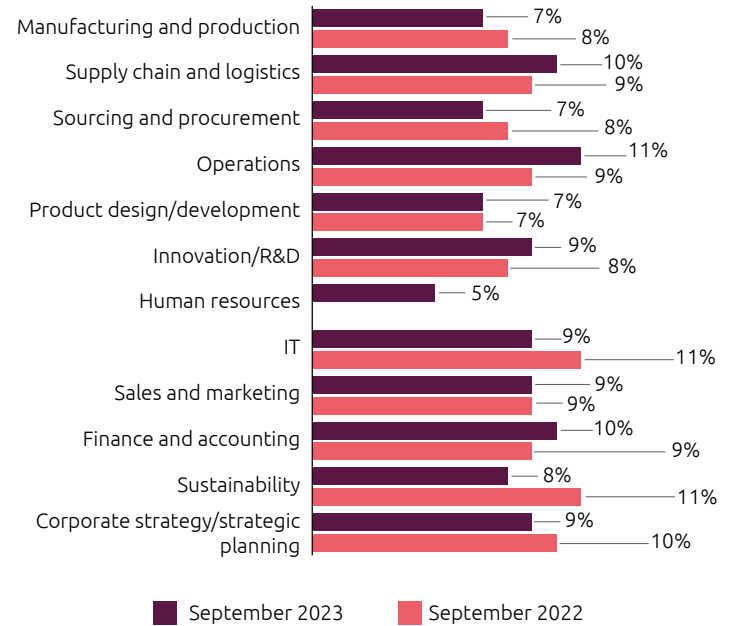
	$1 bn–$5 bn	$5 bn–$10 bn	$10 bn–$20 bn	$20 bn +
September 2022	47%	20%	15%	18%
September 2023	48%	20%	15%	17%

■ September 2022   ■ September 2023

% OF EXECUTIVES BY JOB TITLE

	Director	Vice President	Executive
September 2022	60%	37%	2%
September 2023	61%	37%	2%

■ September 2022   ■ September 2023

% OF EXECUTIVES BY LOCATION OF HEADQUARTERS OF CURRENT ORGANIZATION

	Sept 2022	Sept 2023
Australia	9%	9%
Canada	9%	8%
France	9%	8%
Germany	9%	8%
India	9%	8%
Italy	8%	8%
Japan	8%	8%
Netherlands	7%	7%
Norway		7%
Spain	7%	7%
Sweden	7%	7%
UK	8%	8%
US	9%	9%

■ September 2022   ■ September 2023

% OF EXECUTIVES BY INDUSTRY OF CURRENT ORGANIZATION

Industry	September 2023	September 2022
Utilities	7%	8%
Telecom	8%	8%
Retail	12%	11%
Public/government	9%	9%
Industrial manufacturing	10%	9%
Healthcare and life sciences	8%	9%
Financial services	12%	11%
Energy	9%	9%
Consumer products manufacturing	10%	10%
Automotive	8%	9%
Aerospace and defense	7%	8%

% OF EXECUTIVES BY DEPARTMENT/FUNCTION

Department/Function	September 2023	September 2022
Manufacturing and production	7%	8%
Supply chain and logistics	10%	9%
Sourcing and procurement	7%	8%
Operations	11%	9%
Product design/development	7%	7%
Innovation/R&D	9%	8%
Human resources	5%	
IT	9%	11%
Sales and marketing	9%	9%
Finance and accounting	10%	9%
Sustainability	8%	11%
Corporate strategy/strategic planning	9%	10%

Source: Capgemini Research Institute, Sustainability Transformation Trends Survey, August–September 2022, N = 2,004 executives, 668 organizations; August–September 2023, N = 2,151 executives, 718 organizations.

*Utilities includes electric utilities, gas utilities, water utilities, and waste management; Energy includes oil and gas, alternative/renewable energy, and energy services; Consumer products manufacturing includes apparel, footwear, household, and personal care; and Financial services includes retail banking and insurance.
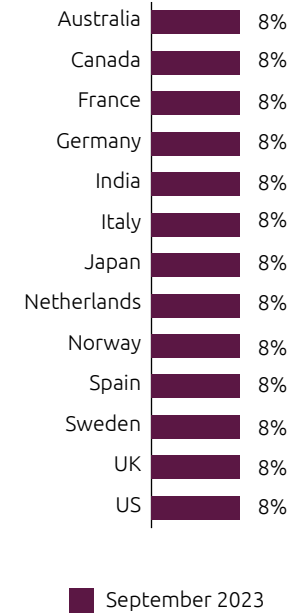
% OF CONSUMERS BY AGE GROUP

Gen Z, aged 18-24: 15%
Millennials, aged 25-40: 29%
Gen X, aged 41-56: 30%
Boomers, aged 57-73+: 26%

■ September 2023
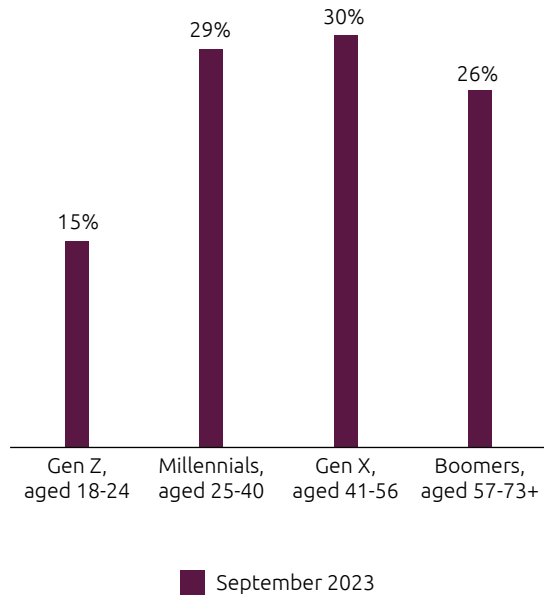
% OF CONSUMERS BY GENDER IDENTITY

49% Woman
51% Man

September 2023

■ Man   ■ Woman
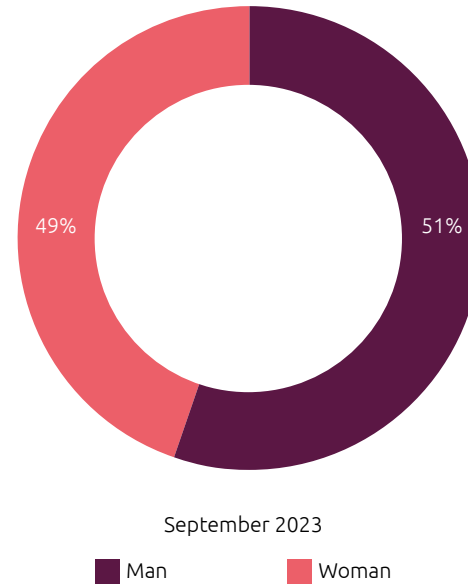
% OF CONSUMERS BY COUNTRY OF RESIDENCE

Country	%
Australia	8%
Canada	8%
France	8%
Germany	8%
India	8%
Italy	8%
Japan	8%
Netherlands	8%
Norway	8%
Spain	8%
Sweden	8%
UK	8%
US	8%

■ September 2023

Source: Capgemini Research Institute, Consumer Survey, October 2023, N = 6,500 consumers.

Appendix

Statements used to evaluate the sustainability maturity of organizations in our survey.

AXIS	PILLAR	STATEMENT
Corporate functions	Vision and leadership	Top leadership shares a common vision of how the business needs to change to become sustainable
		The sustainability vision is well integrated into the core strategy of the organization
		We have defined a corporate purpose that extends to the environment (i.e., purpose meaning a reason for being beyond profit)
		Sustainability aspects are considered in corporate decisions across the company
		We have a clearly defined priority list of sustainability initiatives to be implemented in the next three years
		Sustainability is part of each of our C-suite executives' agenda
		We are redesigning our business/operating model, so they are more sustainable
		We have a strategy to transition to renewable energy for all sources (i.e., a switch from conventional to renewable energy for electricity, fuel, heating)
		Circularity (i.e., a product is created with its own end-of-life considered; once the user is finished with the product, it goes back into the supply chain instead of the landfill) is a key component of our sustainability strategy
		We have internal governance policies and procedures relating to environmental sustainability
Corporate functions	Talent	Upskilling/reskilling on hard sustainability skills (e.g., renewable energy, carbon accounting, environmental science/engineering, data analysis/visualization) is a top priority for our company
		Upskilling/reskilling on soft sustainability skills (e.g., leadership, innovation, communications, design thinking) is a top priority for our company

AXIS	PILLAR	STATEMENT
Corporate functions	Talent	We actively recruit and hire new talent with strong sustainability skills
		We train our employees to adopt sustainable practices in-office
		We equip our employees with tools to support their low-carbon transition (e.g., giving reusable water bottles to reduce single-use plastic, utilities tracker for carbon footprint)
		We train employees on the importance of sustaining the environment
		Employees have sustainability KPIs that they are evaluated against as part of performance management
		Leaders have sustainability KPIs that they are evaluated against as part of performance management
		We have employees with eco-design and sustainable design skills
Corporate functions	Culture	We encourage research and experimentation to develop new initiatives for sustainability
		We provide autonomy to employees to develop new solutions to sustainability challenges
		We actively collaborate with interested stakeholders, including customers, investors, academia, and governments, to develop and promote sustainable approaches
		Our leaders are focused on profit at the expense of our environmental footprint
		All our sustainability reporting and claims are backed by robust audited data
Corporate functions	IT	We use a green cloud architecture for our data centers (which reduces data center power consumption)
		We eco-design our IT applications (i.e., designing for the lowest environmental impact, such as using "sleep modes" on laptops)
		We identify energy-intensive applications and take steps to improve their energy performance
		We have green policies for IT hardware and services procurement (e.g., environmental disclosure for IT vendors)
		We include a carbon emissions assessment when allocating IT spend
		Our organization has a sustainable IT strategy and roadmap
Corporate functions	Finance and accounting	We include an assessment of environmental externalities when evaluating projects to fund (e.g., pollution that might be caused by the project that diminishes property values or health of people in the surrounding area)

AXIS	PILLAR	STATEMENT
Corporate functions	Finance and accounting	We report our sustainability impacts (e.g., water usage, GHG emissions, hazardous waste produced), along with our financial performance, on a quarterly/annual basis
		We have assets invested in ESG portfolios (i.e., funds that incorporate screening criteria for environmental, social, and governance issues, or invest in socially responsible companies)
		We have made fossil fuel divestment pledges (i.e., accelerating the adoption of the renewable energy transition through the stigmatization of fossil fuel companies)
		We invest in carbon offsets (such as purchase of credits or increase in carbon storage through tree planting, land restoration etc.) to balance out our carbon emissions
Corporate functions	Sales and marketing	We educate customers about the importance of adopting sustainable practices
		We offer competitive pricing to encourage more people to consume/purchase sustainable products/services
		We communicate a carbon footprint for every product/service we sell
		We consider environmental sustainability when designing our branding and marketing campaigns (e.g., fewer physical events)
Value chain functions	Technology	We measure the environmental impact of technologies before using them
		We use technology to minimize landfill usage efficiently (e.g., smart waste management for tracking/sorting, using robots for recycling, using AI/ML to reduce waste)
		We use technology such as AI, automation, or digital twins to achieve our sustainability agenda
		We are using IoT/IIoT to monitor/reduce energy consumption
		We use 3D printing to produce less waste and save fuel required for transport
		We use digital technologies (e.g., AR/VR, collaboration tools) to reduce travel needs of employees
		We use blockchain/smart contracts to make our supply chain more sustainable
		We use tools such as supply chain control towers for monitoring and measuring our ESG metrics
		We use AI/ML to optimize data center utilization
		Sustainability-related data is available and shared across the entire organization (e.g., functions, business units, employees, managers)

AXIS	PILLAR	STATEMENT
Value chain functions	Technology	Sustainability-related data is available to interested stakeholders external to the organization (e.g., investors, activists, governments, consumers)
Value chain functions	Sourcing	We consider the ESG ratings and environmental pledges taken by suppliers during supplier selection We are working with our tier-1 suppliers to identify measures for reducing their carbon emissions We are working with our tier-2 and tier-3 suppliers to identify measures for reducing their carbon emissions We use suppliers who have validated SBTI targets to procure raw materials We are working towards reducing deforestation in our supply chain
Value chain functions	Innovation/R&D/ product design	We are designing products so they can serve their originally intended functions longer We use AI/data analytics to aid in the discovery of optimal raw materials We follow sustainable prototyping and testing processes (e.g., use of additive manufacturing or 3D printing) We are redesigning products to remove fossil fuel feedstock sources (such as coal) We are redesigning products to have a lower impact on forests (e.g., using less wood so fewer trees are cut down) We are building solutions to reduce the environmental footprint of our end users/customers We perform LCA (life cycle assessment) on all of our products/services
Value chain functions	Manufacturing	We are minimizing over-production and wastage in production We are shifting our manufacturing footprint to places/locales with low carbon alternatives We are redesigning processes, so they consume less energy (e.g., improving process heating in the production process, powering down equipment at the end of the day) We measure the energy consumption of our industrial processes We use responsible recyclers who do not export our e-waste to developing countries or improperly dispose of it We are reducing food waste in our operations (e.g., by improving accuracy of forecasting, providing clearer expiration dates) We have implemented a water stewardship program (i.e., using water in a way that is socially equitable, environmentally sustainable, and economically beneficial)

AXIS	PILLAR	STATEMENT
Value chain functions	Manufacturing	We actively work to recover waste (i.e., using waste as an input material to create useful products as new outputs)
		We take back end-of-life products from customers to use them in the remanufacturing process/upcycle
		Recycling products is a core aspect of our manufacturing strategy
		We monitor the conversion of natural ecosystems (i.e., changes owing to deforestation) on our owned/managed lands
		We invest in conserving natural habitats (such as rainforests)
		We are adopting plant-based food in our operations (e.g., offering only vegetarian meals/snacks in office, promoting plant-based diets to employees/customers)
Value chain functions	Logistics	We use analytics for optimizing logistics to reduce travel and associated emissions
		We have adopted eco-friendly transportation strategies to reduce emissions (e.g., use of low-carbon fuels, electric vehicles, replacing old fleets with more energy-efficient ones)
		We have dedicated reporting from our transportation suppliers on the carbon impact of their services
Tech accelerators	--	The extent to which organizations have implemented the following in their sustainability strategy and practices: • AI/machine learning • Automation • AR/VR • Collaboration tools • 3D printing • Digital twins • IoT/IIoT • Robotics • Hydrogen • Gigafactories • Electrification • Smart grids • Bioeconomy • Carbon capture, utilization, and storage

Source: Capgemini Research Institute analysis.

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Capgemini can help you consciously accelerate sustainability

We have the end-to-end capabilities to truly future proof your business. We are strategic experts, data masters, digital innovators, and engineers. Our Business to Planet approach turns your sustainability challenges into a catalyst for innovation and a driver of value. By embedding the needs of the planet into how we think and what we do at every stage, we help you deliver on your targets today while creating a better tomorrow.

COMMIT	**Sustainability strategy and governance**	We help you consciously accelerate sustainability by defining actionable strategies, developing measurable commitments, creating comprehensive transformation roadmaps, choosing smart investments, identifying new business models, and enacting culture change to deliver tangible value through proactive governance for all stakeholders and the planet at large.
ACT	**Sustainable products**	We create, engineer, and redesign your products by holistically considering the planetary boundaries, the product life cycle, current and pending regulations, cost constraints, and corporate values to delight your customers and unlock competitive advantage through patents, green energy, product digital passports, circularity, and climate tech.
	Sustainable operations, manufacturing, and supply chain	We drive transparency and resiliency while unlocking innovation across your entire value chain by leveraging technologies and data to tackle issues including responsible procurement, traceability, biodiversity, resource efficiency, and waste resulting in increased customer satisfaction and loyalty, higher market share, and improved profitability.
	Sustainable technology	We enable your IT department to champion sustainability through both Green IT and IT for Green initiatives that reduce the digital and technological impact, embrace sustainable technologies, improve services and employee experiences, and spark culture change by engaging IT and employees alike, all while measuring your progress and its impact.
MONITOR AND REPORT	**ESG management and reporting**	We go beyond carbon and mandatory reporting to help you measure your commitments, monitor your progress, identify quick wins and impactful transformation opportunities, unlock value, and provide transparency to consumers, citizens, shareholders, and regulatory bodies by securely harnessing the power of data across your entire ecosystem to create environmental and social impact while improving your ESG performance and bottom line.

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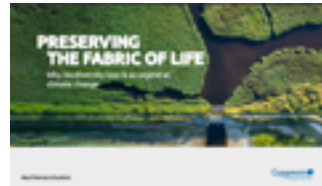annlore.defossez@capgemini.com

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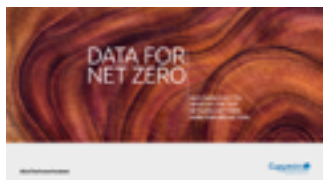A world in balance: Why sustainability ambition is not translating to action

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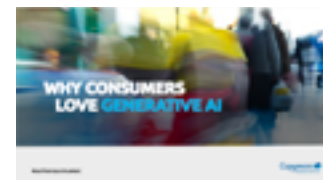Future-ready education: Empowering secondary school students with digital skills

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