

The State of Sustainability Readiness 2024

How do we close the gap between ambition and action?



In the broadest sense, sustainability is about working to preserve continuous operations over time; work that never ends in an ever-shifting landscape of challenges and opportunities.

Today, business leaders understand AI reflects both a challenge and an opportunity. AI is accelerating the discovery of lifesaving drugs and sustainable materials, optimizing supply chains and mining efforts, and supporting the transition to more renewable, decentralized electric grids. Yet AI adoption has also driven higher energy use and costs for many organizations, and even forced some to reevaluate their sustainability targets.

For business leaders, the task ahead is how to maximize the business value of AI—delivering the results clients need better, faster and with higher quality—while minimizing its costs and environmental impacts.

New data from The State of Sustainability Readiness 2024 report shows organizations are well underway in grappling with this task. 9 out of 10 respondents believe in the potential of AI to contribute to sustainability outcomes. 61% of respondents view investments in information technology (IT) for sustainability from the perspective of opportunity and growth rather than cost mitigation. And almost 90% plan to increase investments in IT for sustainability. This data signals organizations understand the enormous opportunity for AI, if implemented correctly, to drive both organizational and environmental sustainability.

At the same time, the report shows there is huge room—and need—for growth. More than half of organizations (56%) are not yet actively using AI for sustainability, and 48% say investments in IT for sustainability are “one-off” rather than coming from a regular

operational budget. At the same time, only half of surveyed leaders feel prepared to deal with increasingly disruptive climate risks.

The potential and consequences of AI do not stop at the lines drawn on any organizational chart, and so this report is for CEOs, CSOs, CIOs, COOs and more. Successfully operationalizing sustainability is not about an annual report, it is about using data and technology to tackle an organization’s core mission with a smart, strategic, long-term approach. The data shows that more than ever businesses are starting to, and must, approach sustainability in its broadest sense—using every tool at their disposal to mitigate climate threats, support more streamlined and cost-efficient operations, and stay competitive with their peers.



Christina Shim
Chief Sustainability Officer, IBM

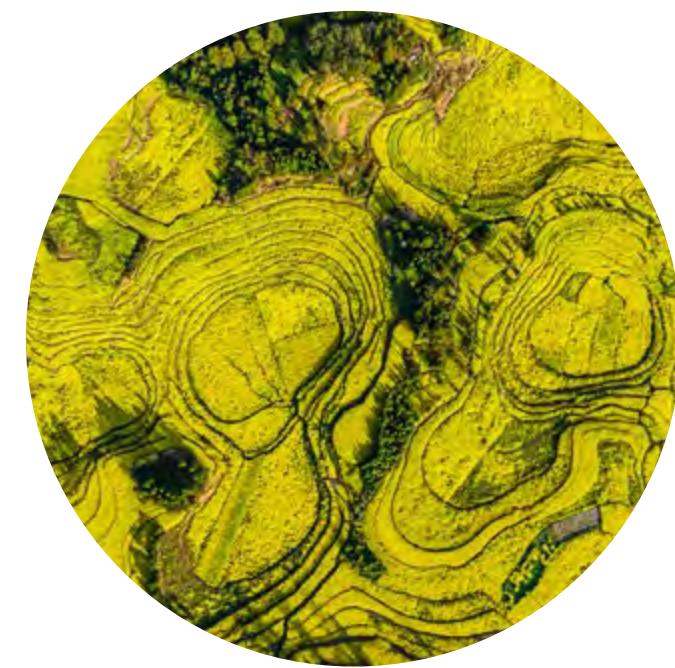
Global industry leaders see the opportunities in using IT—and most prominently, AI—to elevate sustainability and their companies. However, they also see gaps: outmoded policies, confidence in tracking progress, energy consumption and lack of expertise, especially in employee skills relating to AI and generative AI. In this report, we'll show you how key players are investing in sustainability through the opportunity of technology.

The State of Sustainability Readiness 2024 report was conducted independently by Morning Consult and sponsored, analyzed and published by IBM. Interviews were conducted between April and May of 2024 with 2,790 business leaders and decision-makers, across 15 industries, in 9 countries. More than 30 survey questions correlated to climate risk and corporate responsibilities, and covered strategic, financial, regulatory and compliance concerns.

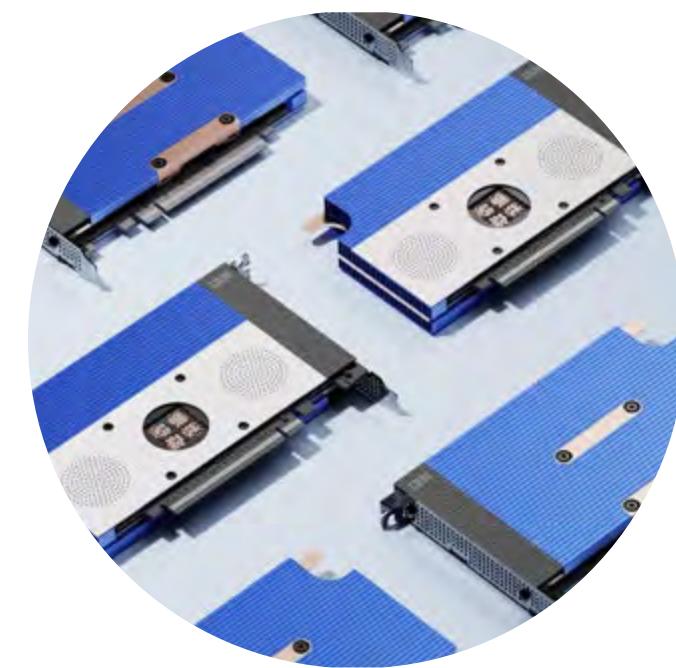
The research found most organizations understand the necessity of climate risk mitigation to protect assets and advance operations. Many acknowledge the importance of investment in IT, infrastructure and human capital. Candid responses revealed perceptions of readiness and progress differ between leadership levels. But almost all the surveyed C-level executives expect AI to be a change agent in furthering their business while growing climate resiliency.



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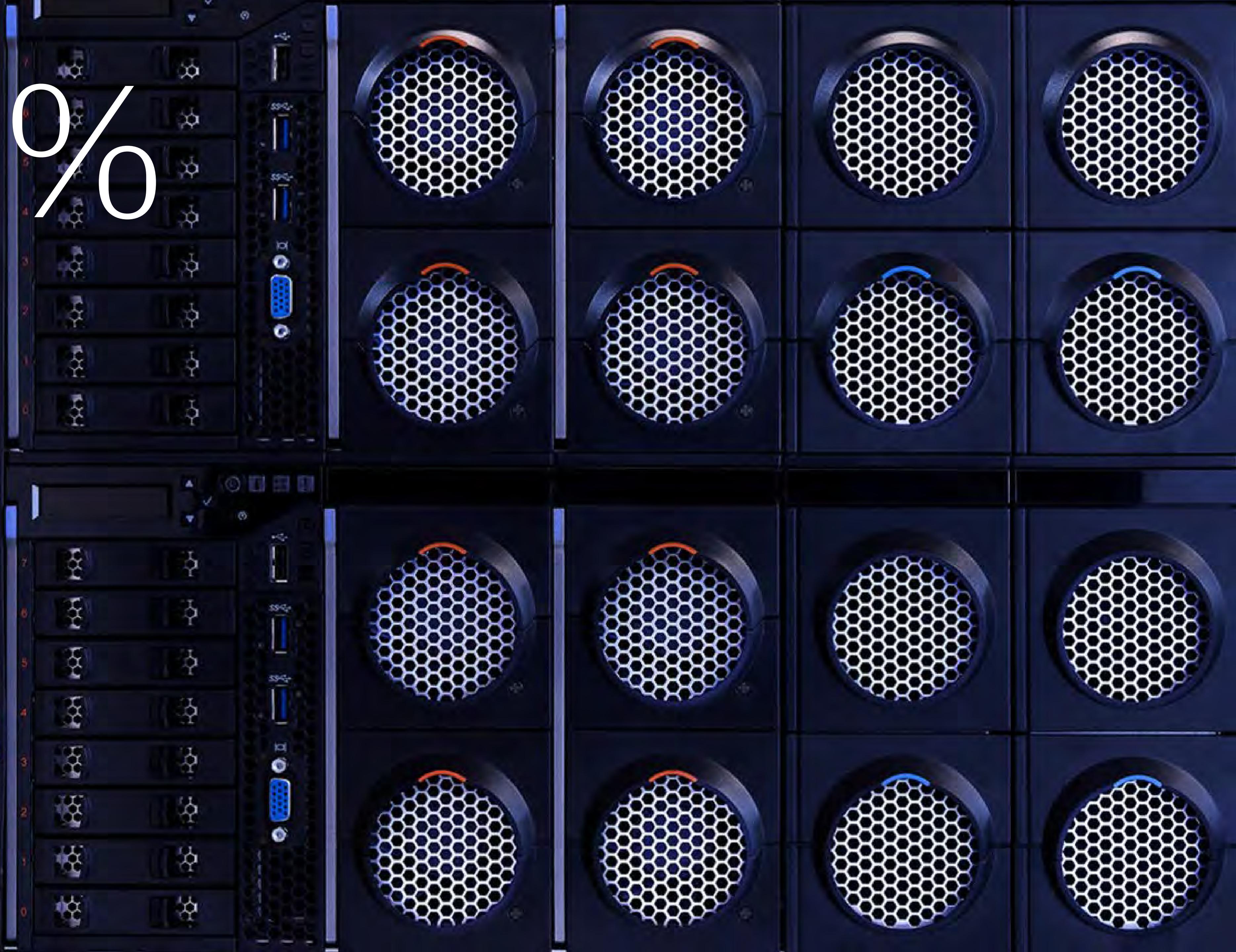
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1. Stronger IT, greater sustainability

Investing in IT for sustainability isn't just a matter of doing the right thing—it can have a net positive impact on your organization's current and future success. Along with practical goals, such as reducing risk to business assets and lowering energy costs, investing in IT for sustainability can satisfy stakeholders, attract principled employees and position their organization for AI in the future.



88%
of business leaders intend to
increase investments in IT to
advance sustainability efforts.



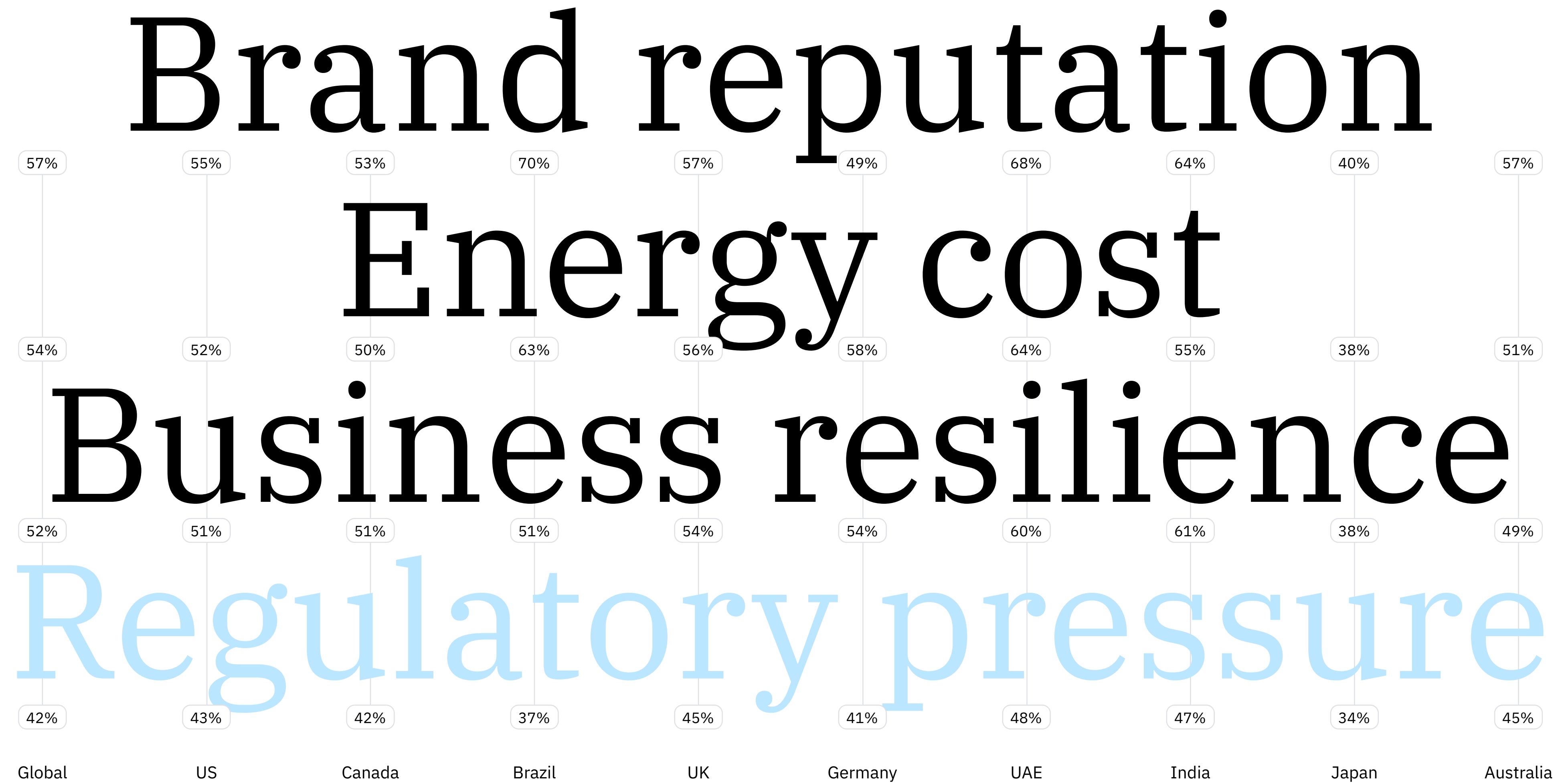
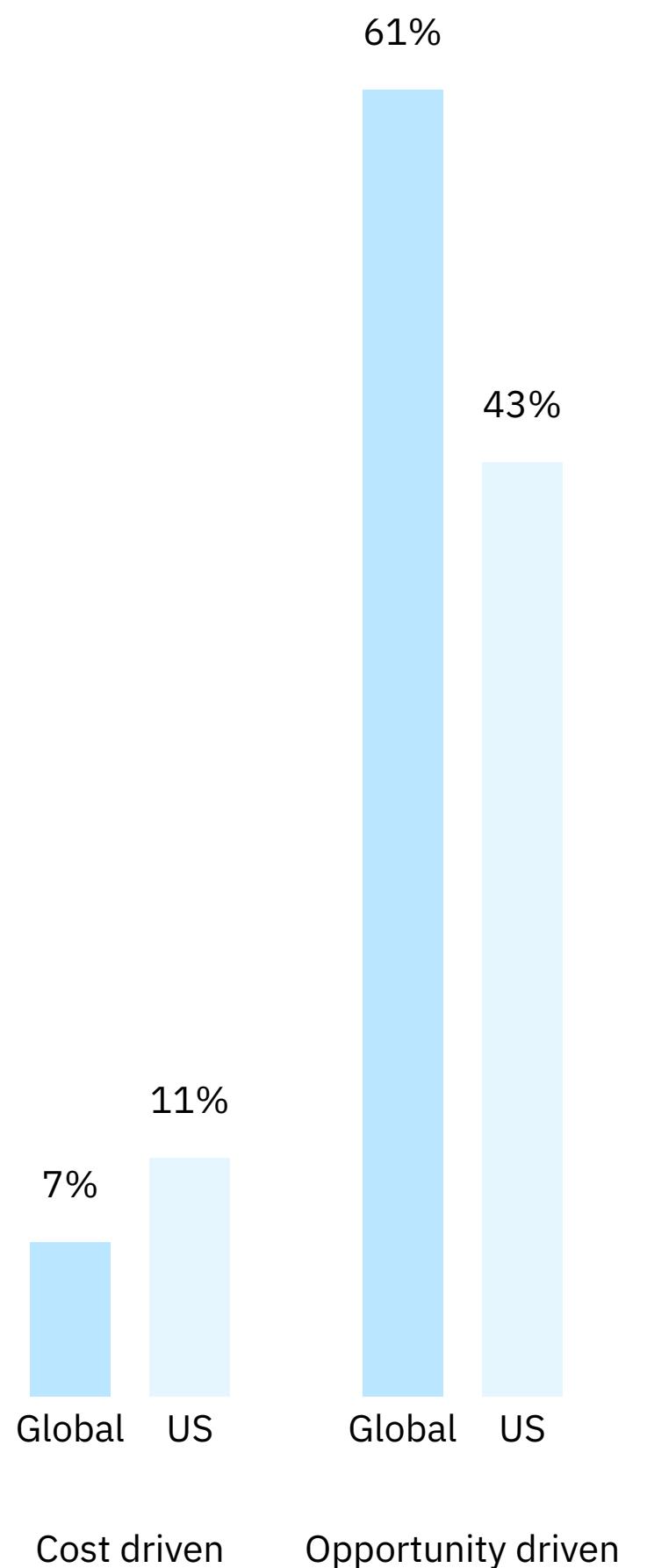


Figure 1.

Top factors in increasing IT sustainability investments

Decision-makers cite brand reputation as a key reason for investing in IT and related services for sustainability. Globally, this reason accounts for 57% of positive responses, followed closely by

energy costs and long-term business resilience. Regulatory pressure holds less importance. The findings suggest the importance of strategic alignment of organizational objectives and desired outcomes when it comes to IT investments for sustainability.



16%

higher rate of revenue growth
is seen by organizations that
embed sustainability.

52%

more of businesses integrating
sustainability outperform their
peers on profitability.

Figure 2.

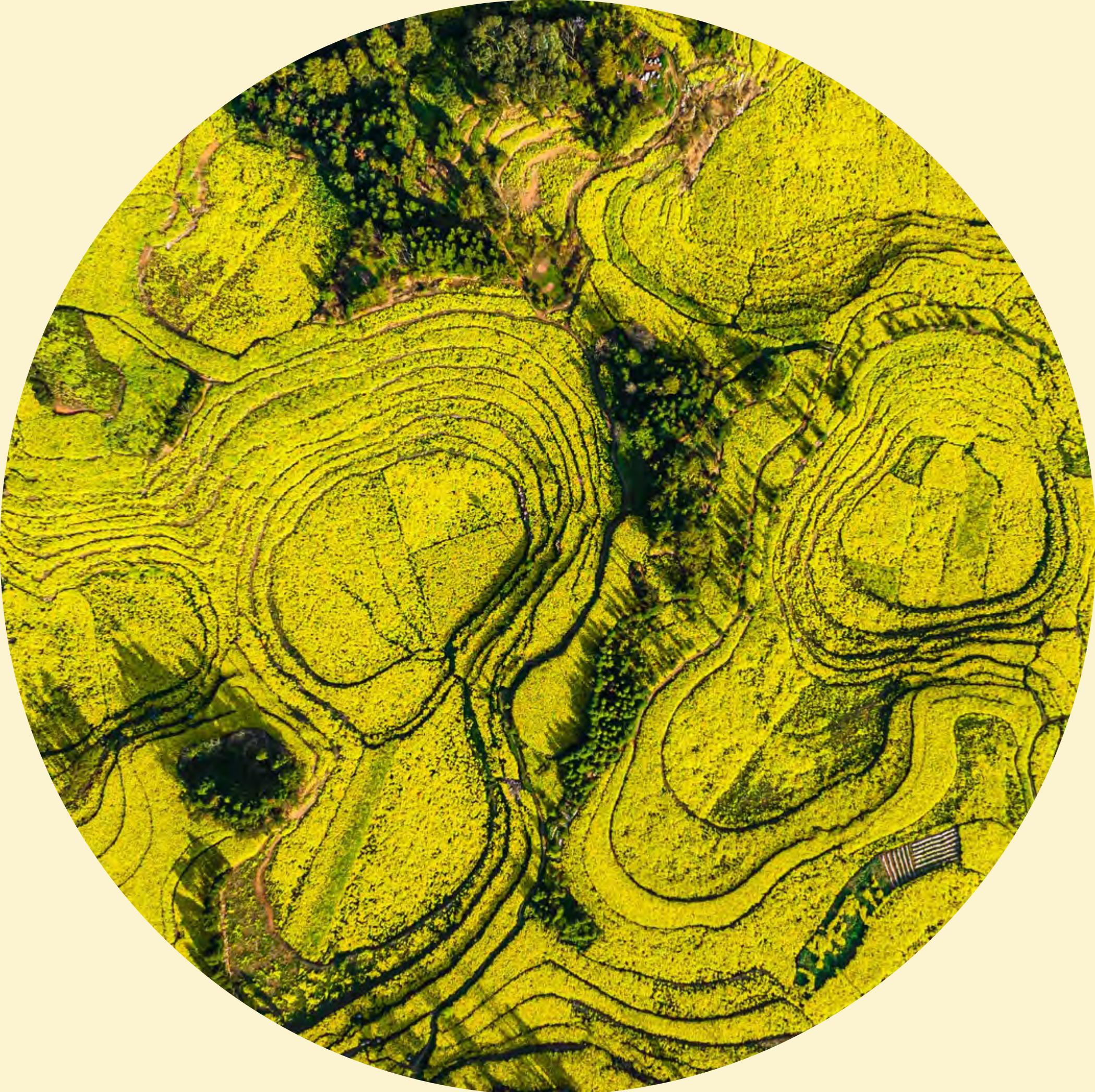
What drives sustainability investment? Opportunity.

The top leaders surveyed said they invest in IT sustainability initiatives based on the perceived opportunity rather than cost mitigation. And this opportunity mindset is paying off. The drive to invest in such initiatives is benefiting organizations using this approach. Organizations that

embed sustainability are 52% more likely to outperform their peers on sustainability when compared with those that do not, according to research conducted by the IBM Institute for Business Value.¹

2. The urgency to think ahead

From Kerala to Sao Paulo, Auckland to Kyoto, global leaders are increasingly investing more in sustainability IT—but not all with the same urgency. Economic factors, household income, government policy and geographic differences undoubtably affect these investment decisions. But citizens and businesses around the globe have one thing in common: they need their leaders to think ahead.

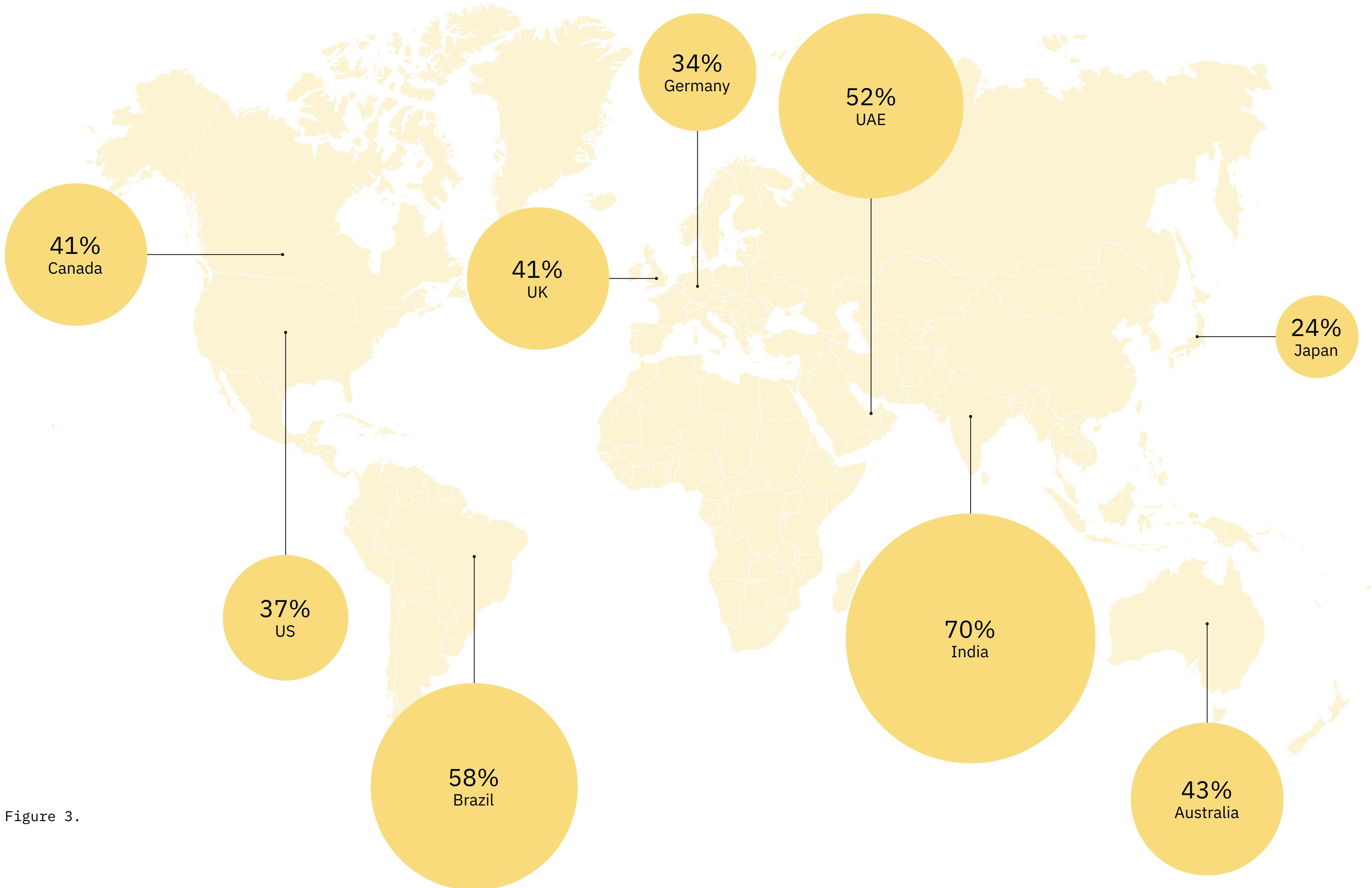


Countries are investing more in IT for sustainability

Investing in IT for sustainability is anticipated to grow across global markets over the next 12 months. Countries, such as India, Brazil and Australia, which have faced recent extreme climate issues, plan to invest even more than the global average of 88%. Within this global average, 44% of markets plan significant IT investment.

The global cost of climate change damage is estimated to be USD 143 billion per year.² This cost is expected to increase over time as the impacts of climate change become more severe. As a result, countries with lower incomes are at a higher risk from the adverse economic impacts of climate change, which is why they might be likelier to invest in sustainability-related IT. Leaders in Japan, on the other hand, answered much more conservatively across the report's key metrics.

Figure 3.

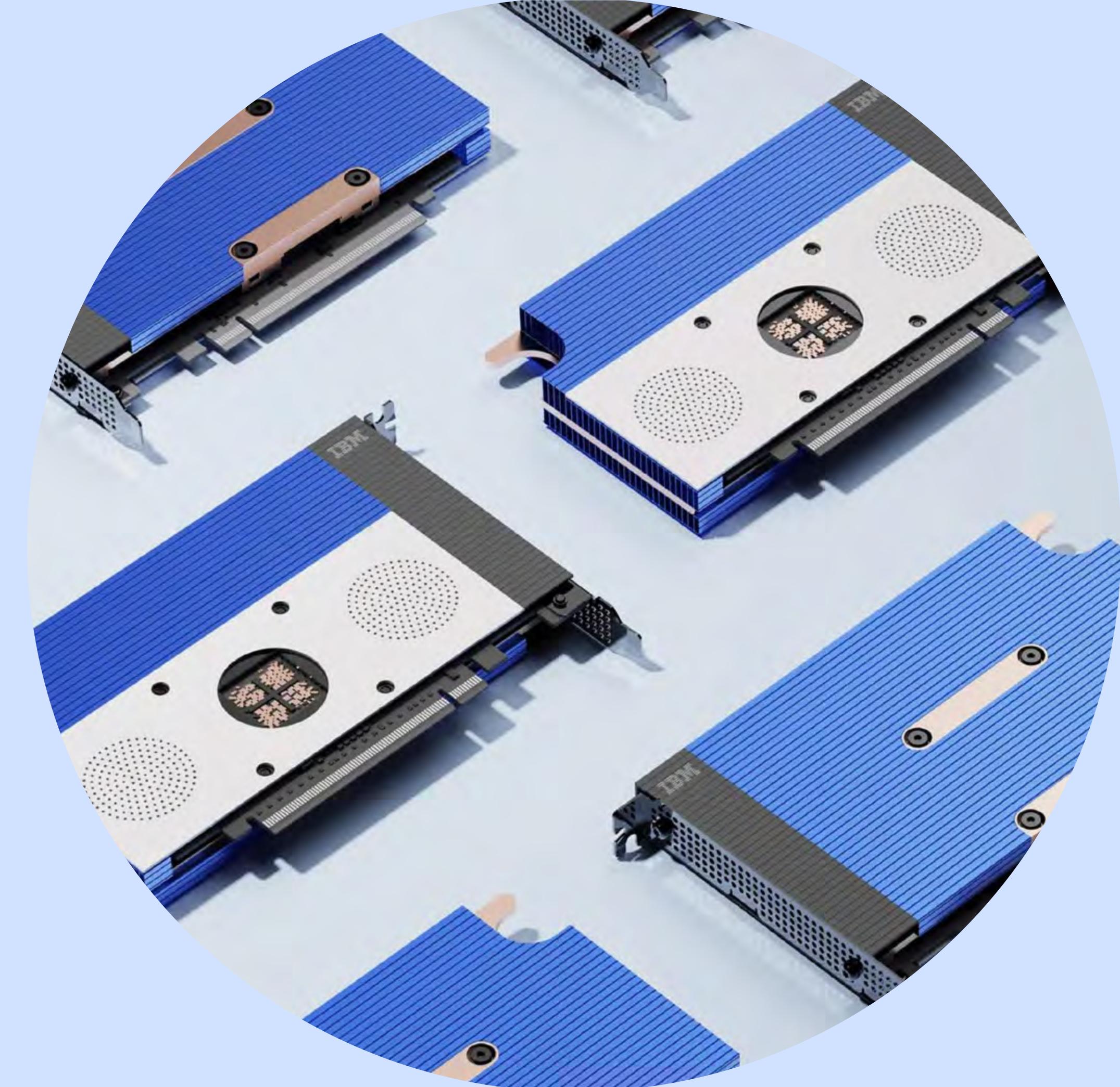


An aerial photograph showing a vast, repetitive pattern of orange and white rectangular panels covering a large industrial or agricultural structure. A single person, wearing a light-colored shirt and dark trousers, is visible on one of the panels, appearing very small against the massive scale of the structure.

India and Brazil plan to
invest 15% over the global
average in IT sustainability

3. The AI sustainability dilemma

AI is a hot topic in the sustainability community, and it's easy to see why. It can help streamline data collection from various sources, aid sustainability leaders in understanding environmental risks, and assist in navigating the regulatory compliance process and making informed decisions. Additionally, AI can help organizations adapt their operations to the changing climate, and better maintain their assets and operations in response.



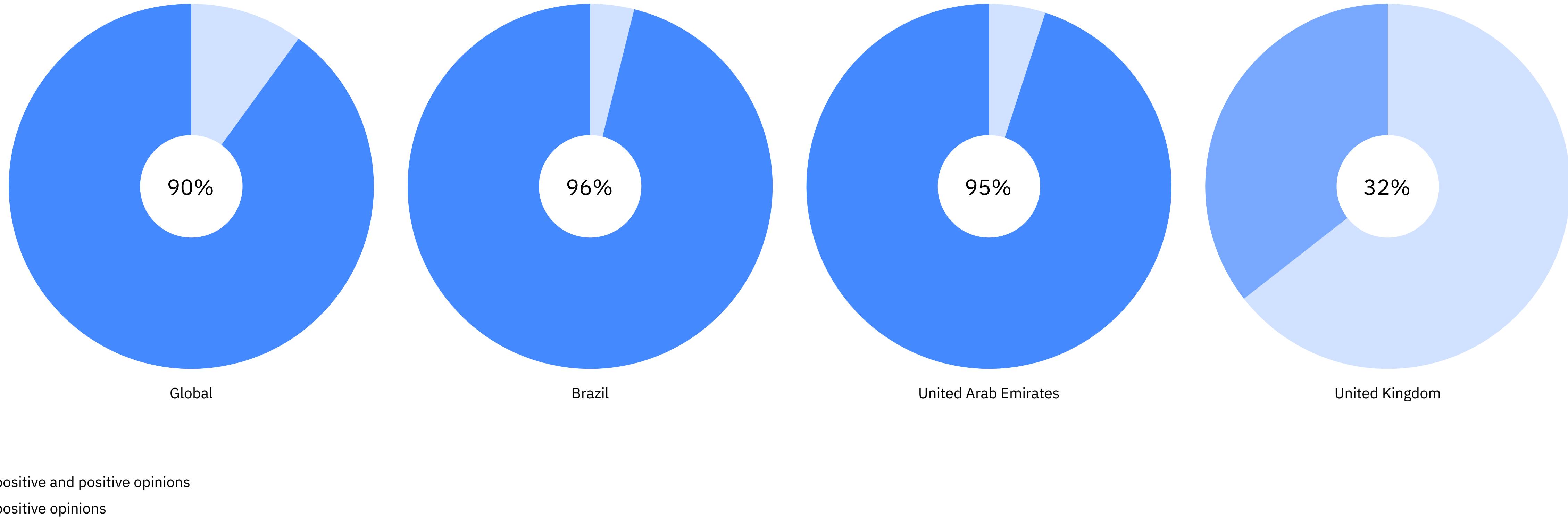


Figure 4.

Leaders agree AI will have a positive influence in achieving sustainability goals

Almost universally, respondents had an overwhelmingly positive take on the influence of AI in their organizations, especially surveyed leaders in developing markets, such as India, Brazil and United Arab Emirates. However, leaders in the UK were more ambivalent, with only 32%

responding with very positive opinions about the impact of AI on their organization's sustainability efforts. Whether it's innate cultural skepticism, policy or geography, it's tough to measure. But as sustainability increasingly becomes a business imperative, minds may change.

“We have a commitment to reach net zero by 2035, and we’ve used that commitment to influence our recently enacted Evergreen IT strategy.”

Steve Elliott

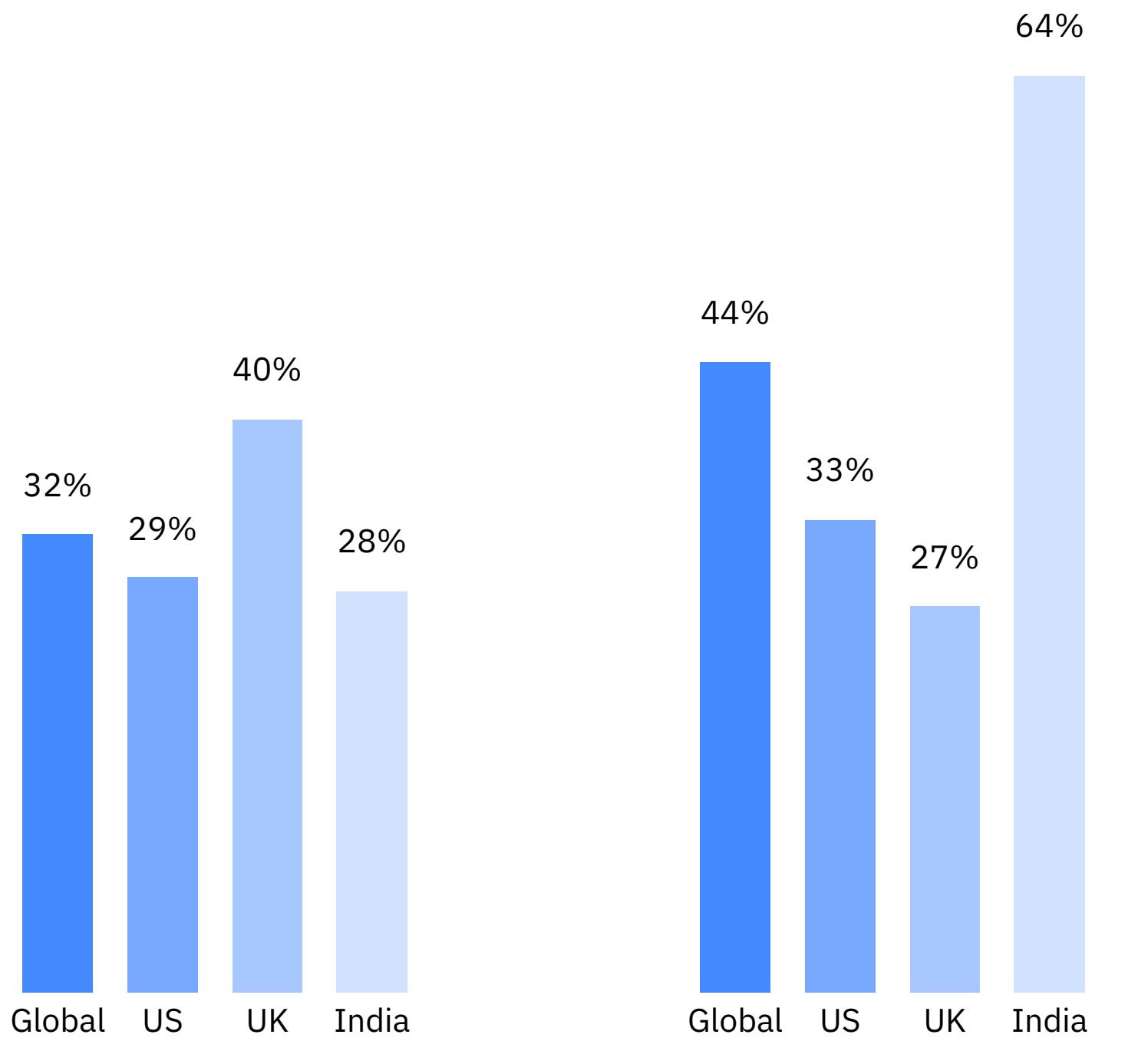
Head of IT Services, Water Corporation



Read the case study on [IBM.com](#) ↗

Organizations are already seeing results in applying AI to their sustainability efforts. Water Corporation, a Western Australia state-owned entity, employed AI to help migrate its back-office services to a responsible cloud-first approach. The team used generative AI to convert plain English into code recommendations for the automation functions that were targeted for the migration and upkeep of the new environment. Additionally, they automated common, often-repeated support tasks to be performed automatically.

This strategy saved Water Corporation roughly 1,500 hours of manual labor annually associated with infrastructure support and cut development efforts and associated costs by 30%. And all these savings helped them offset the cost of running their cloud environment by more than 40%.



56%

of leaders are not using AI for sustainability efforts despite widespread positive sentiments regarding AI.

Figure 5.

AI adoption for sustainability purposes shows promise

The report revealed that despite the widespread positive sentiments connected with AI, more than half of organizations studied are not using AI for their sustainability efforts. That

percentage could improve in the near future, however, as 32% of respondents claimed they plan to implement an AI solution for sustainability soon. India leads all surveyed countries in actively using AI at 64%, which is in stark contrast to the UK, where AI adoption is at just 27%.

AI is powerful, but at what ultimate cost?

For all the power AI can deliver, organizations must still account for the energy use it demands—something leaders are trying hard to mitigate. The good news? This new adoption of AI is galvanizing organizations to employ more sustainable practices, such as utilizing foundation models, optimizing data processing locations, investing in energy-efficient processors and leveraging open-source collaborations. These strategies not only reduce the environmental footprint of AI, but also enhance operational efficiency and cost-effectiveness, balancing innovation with sustainability.

2030

The power demand of AI is expected to rise by 160%.³

2024

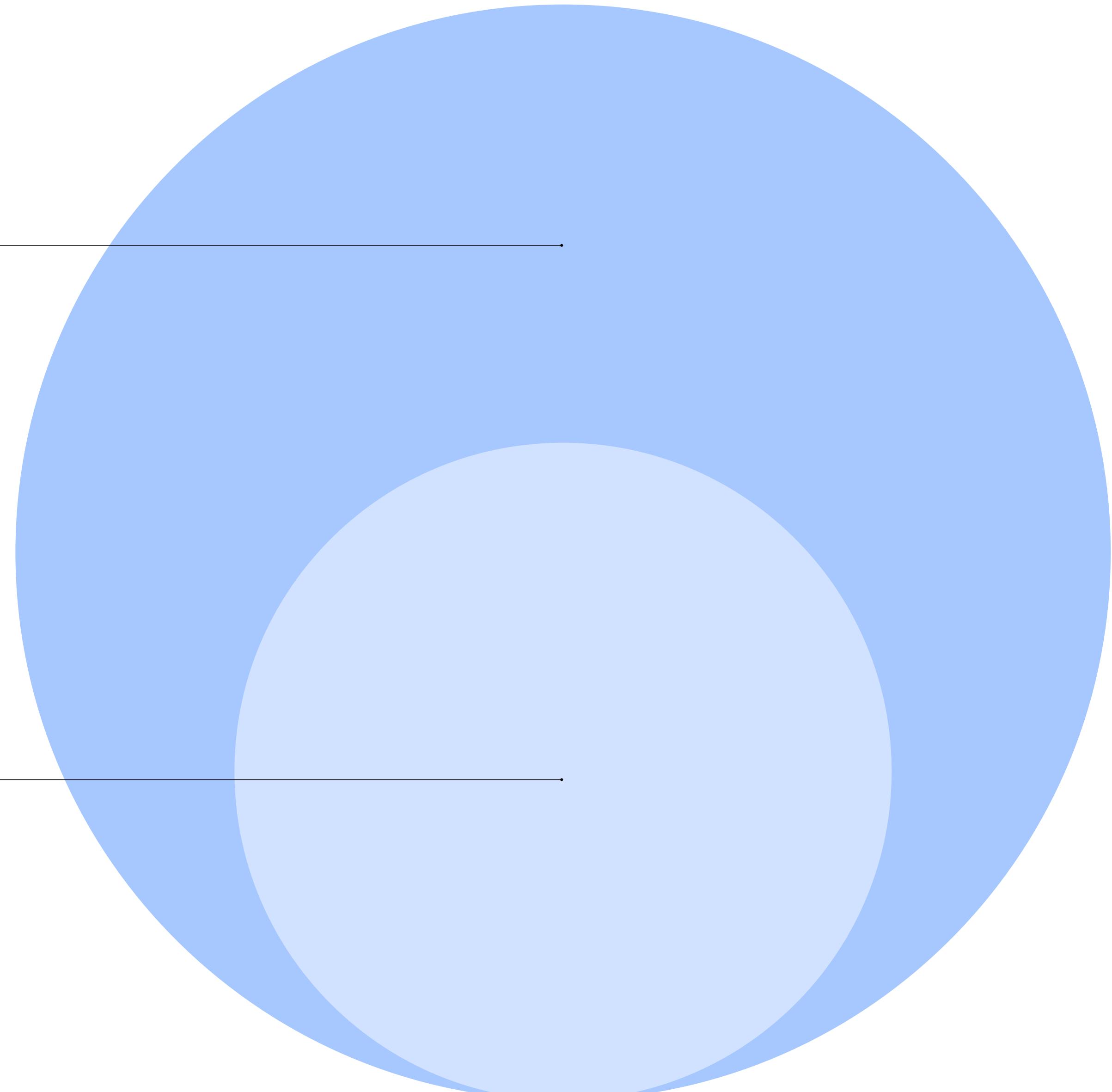


Figure 6.

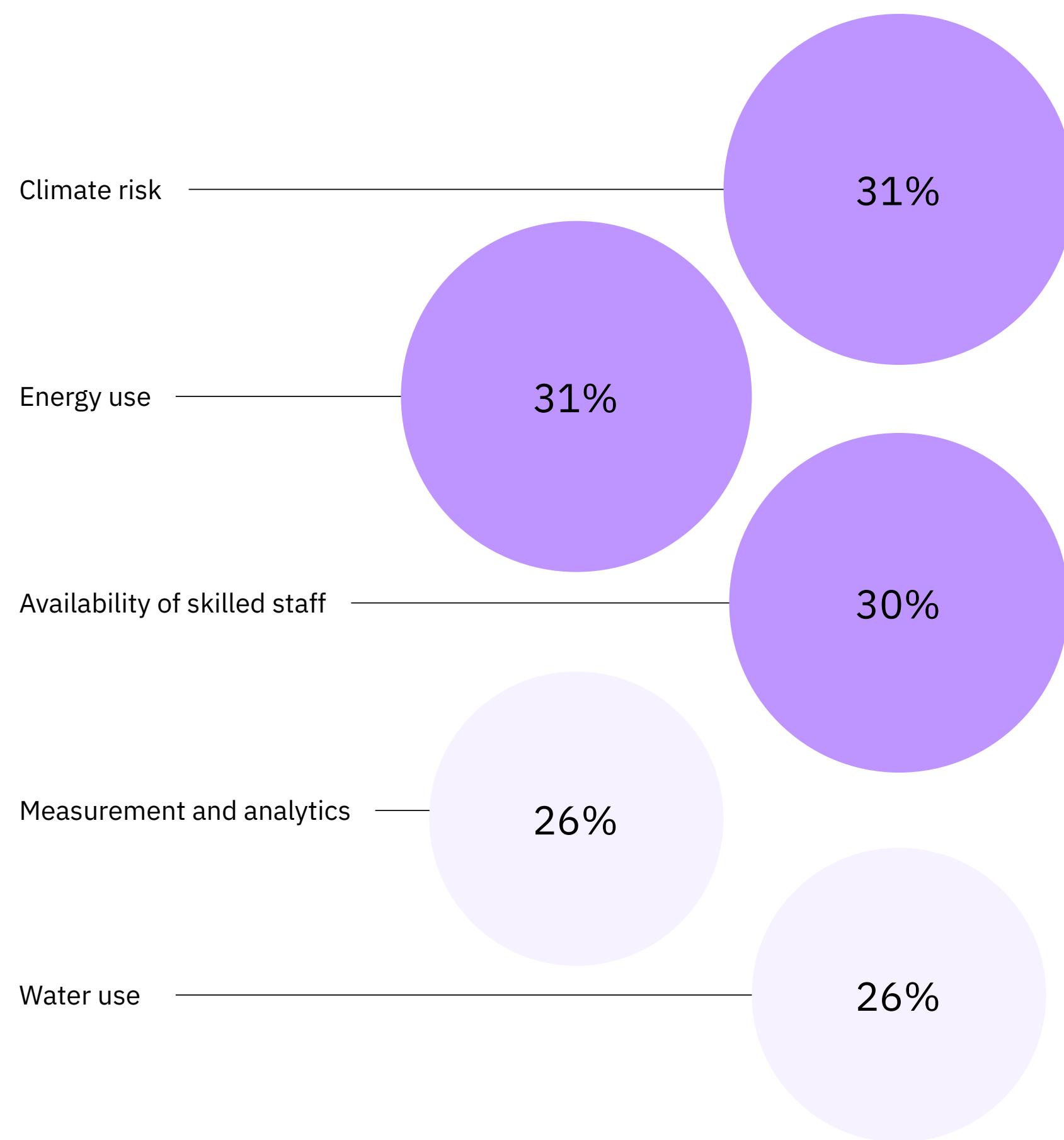
4. From risk to resilience

Climate resilience—anticipating, adapting to and recovering from the impacts of climate change—is a necessary goal for any organization. From responsibly managing natural resources to finding skilled employees to devise solutions to environmental challenges, business leaders are investing in climate resilience by thinking of their IT as an engine for sustainability—and profitability.



Climate resilience is the most critical sustainability issue





1
/2

of leaders surveyed feel fully prepared to deal with these aspects of climate risk.

Figure 7.

A ranking of the most challenging sustainability issues that companies must solve

On average globally, organizations cited climate risk to operations and assets, energy use, and skilled staff availability as their top 3 sustainability challenges. By implementing a strategy that prioritizes repairs and replacements, they can improve asset health, predict failures and extend

asset life. Leaders in India and Germany are particularly proactive in addressing these issues, especially the urgent need to address challenges related to water use. Even so, only half of global leaders surveyed feel confident in their readiness for climate risks.

“We’re the largest provider of through-life support asset management services for passenger rollingstock in Australia.”

Adam Williams

Head of Growth, Rail and Transit Systems at Downer Group



Read the case study on [IBM.com](#) ↗

Harnessing infrastructure data offers a great opportunity. With the correct data and proper analysis, companies can identify and fix early problems, extending the life of critical machinery and reducing maintenance and material waste. The Downer Group turned to IBM asset management to monitor, measure and maintain the trains in its critical transportation infrastructure.

Their AI-powered platform harnesses complex analytics and near real-time data to support predictive maintenance efforts for more than 200 trains.

Downer effectively doubled the number of trains it could maintain from one maintenance center alone—all while netting a 20% improvement in efficiency.

5. Top challenges: Budget, measurement and skills

The big 3 challenges facing business leaders are: how much to allocate to sustainability efforts, how to measure sustainability key performance indicators (KPIs) and how to stay staffed with experienced workers amid current labor shortages.



Global allocations for sustainability

The first big challenge organizations face when it comes to investing in sustainability is financial planning. One telling statistic reveals whether a company considers sustainability measures as part of their operating budget or relegates it to the lower-priority exceptional budget—or even figures it in at all. Responses showed only 26% said IT sustainability is part of their regular operational budget, signaling that IT sustainability is not a priority within the overall strategy of organizations.

What accounts for the gap between dedicated and exceptional budgets? Quite likely, opportunity. With many sustainability issues tied to energy consumption and IT and the rising investment in AI, an increased IT budget could signal that organizations are beginning to see the benefits and how to operationalize sustainability through new technology.

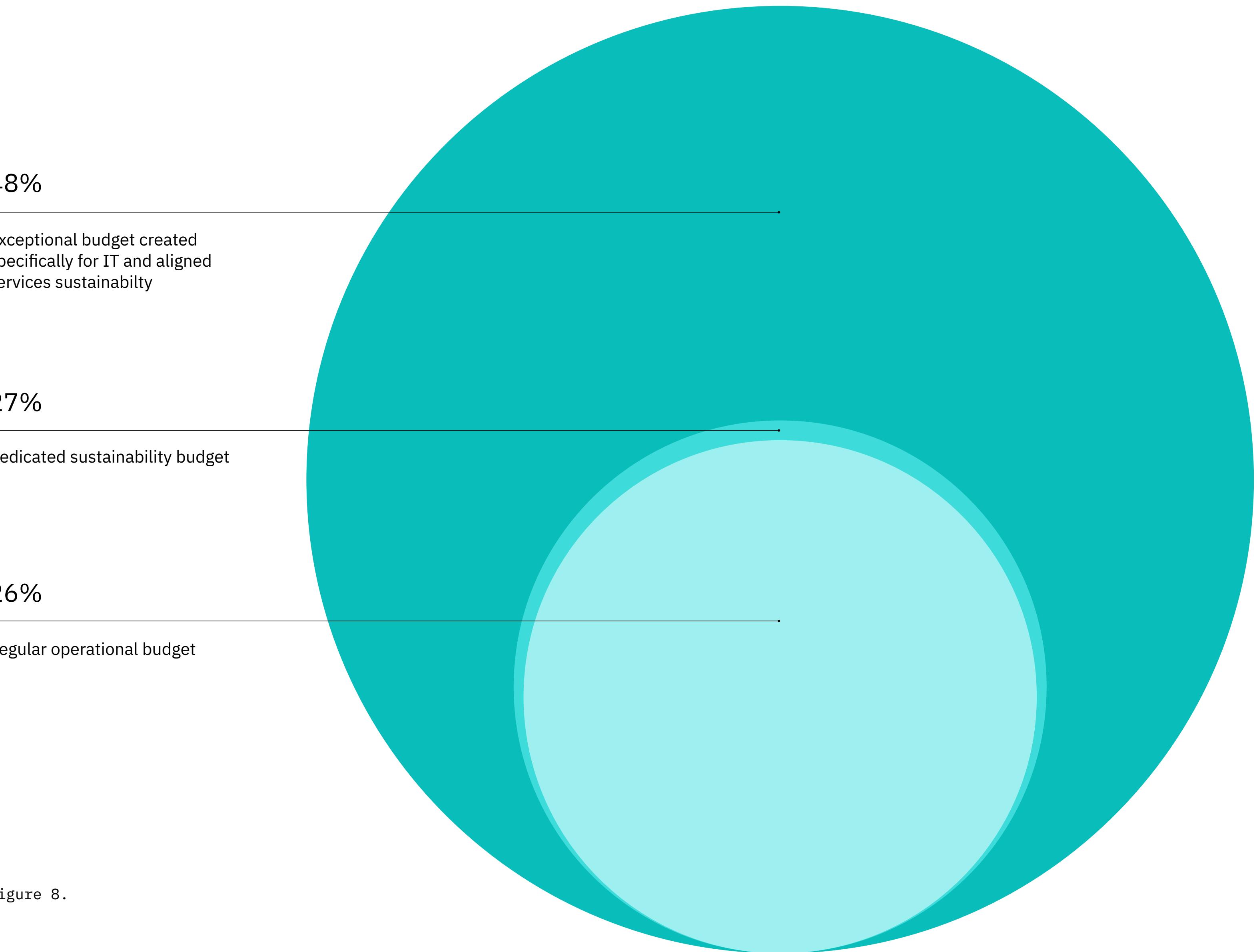
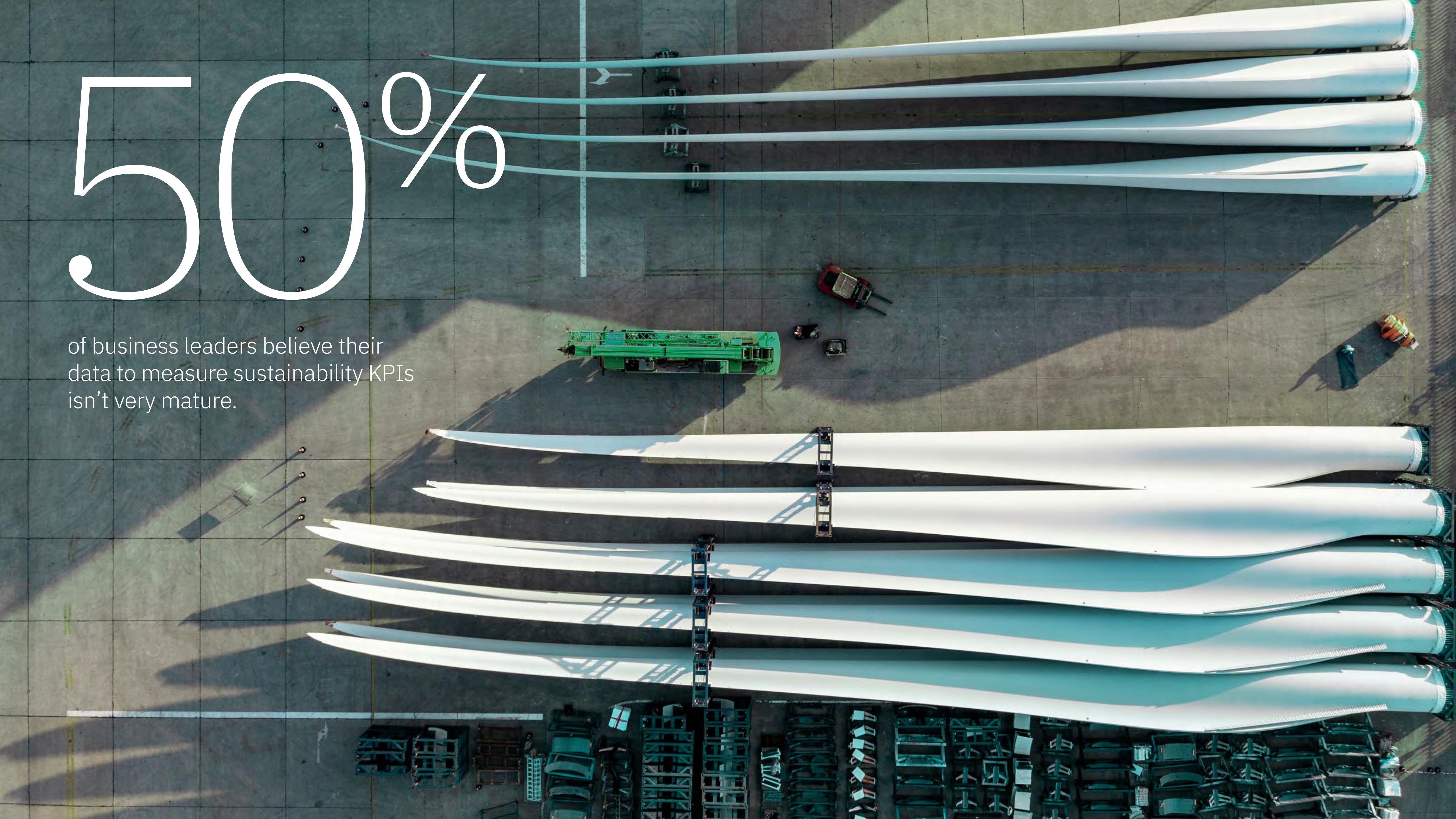


Figure 8.

50%

of business leaders believe their data to measure sustainability KPIs isn't very mature.



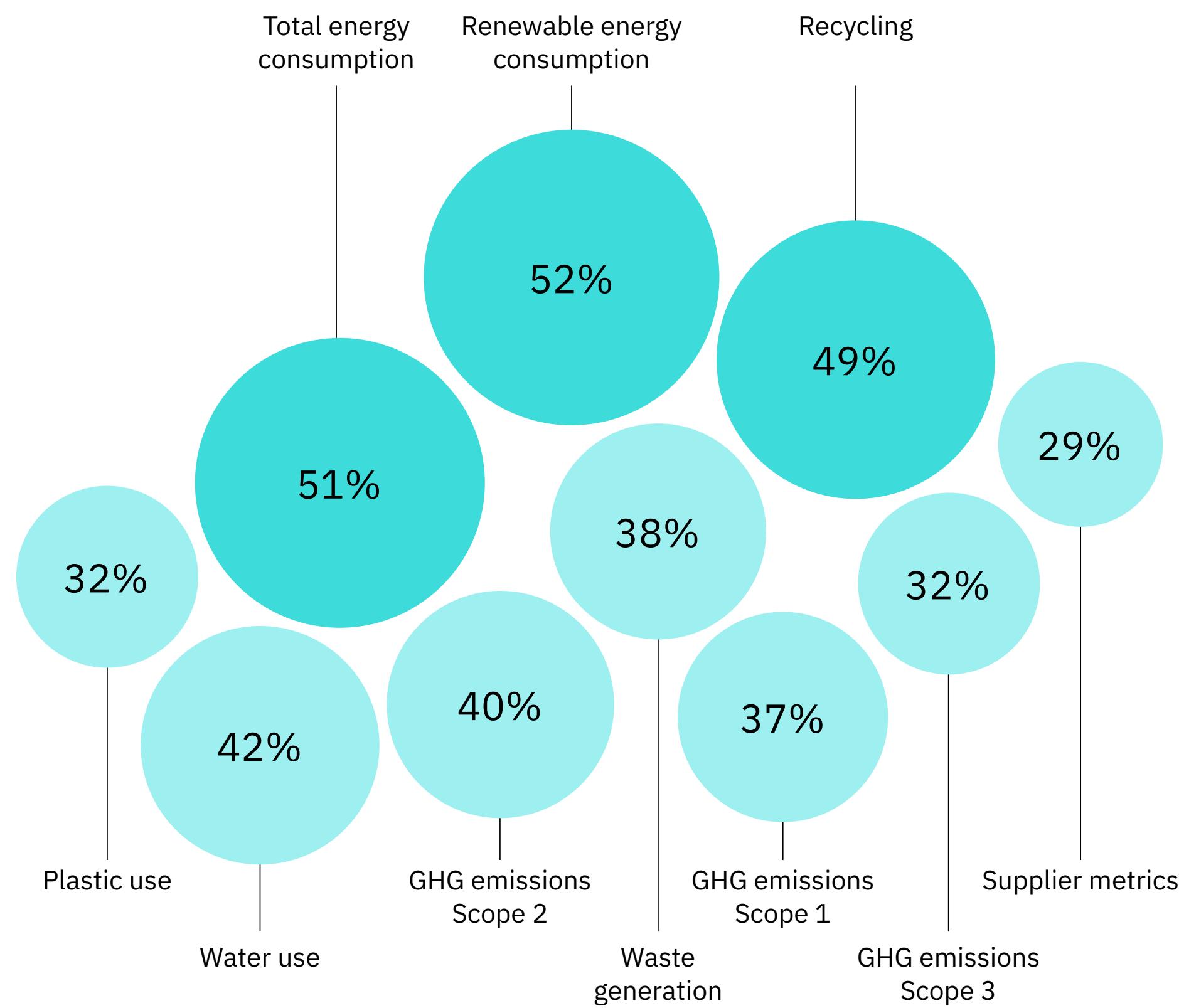


Figure 9.

Top KPIs used to measure sustainability outcomes

The second challenge is knowing where to begin. Leaders in most surveyed countries looked to resource efficiency, citing renewable energy consumption, total energy consumption and recycling as their top 3 KPIs for sustainability outcomes. Renewable energy consumption is cited as the top KPI in Brazil, UAE and the UK. Over 80% of global energy production comes from fossil fuels, which are nonrenewable resources, such as coal, oil and gas.² However, cleaner, renewable sources of energy—solar, wind, geothermal, hydropower, ocean energy and bioenergy—are gaining ground.

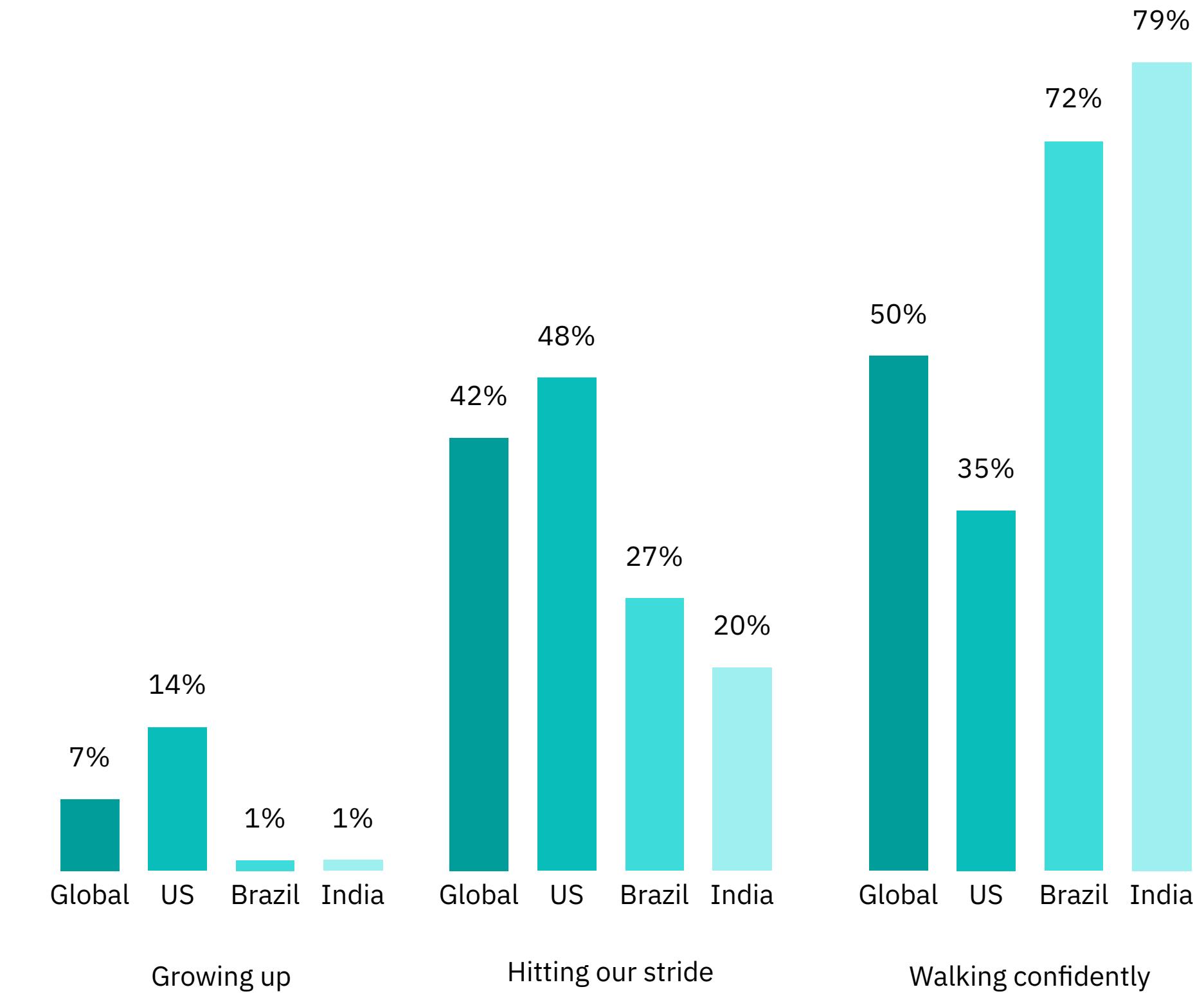


Figure 10.

How mature are organizations in using data to track progress?

Reliable data plays a significant role in improving and tracking progress on sustainability goals. Metrics are inconsistent across markets in their ability to track sustainability KPIs. India and Brazil's strong reliance on brand reputation, elevated expectations with AI integration, relatively advanced stages of digital transformation preparedness and commitments to skill enhancement through targeted investments may contribute to this confidence level.

The third pressing need for executives is expertise in AI and generative AI, sustainable business strategies, and renewable and clean energy. Responses showed skills in AI were most desired in Brazil, at 53%, and the US, at 47%, with a strong appreciation for sustainable business strategies in UAE at 44%, Australia at 40% and Canada at 39%.

“The supply chain for renewable products was in many ways a new kind of business, and we needed a new foundation to build it on.”

Marko Mäki-Ullakko

Head of Integrated ERP, Neste



Read the case study on [IBM.com](#) ↗

Along with measuring and finding efficiencies, technological breakthroughs also present new sustainability opportunities. Neste, the world's leading producer of sustainable aviation fuel and renewable diesel, aims to help customers reduce their greenhouse gas (GHG) emissions by at least 20 million tons annually by 2030.

As a catalyst to achieving this goal, they needed a truly global supply chain strategy to effectively manage their network of advanced renewable refineries and technologies.

IBM Consulting® provided Neste with the process design support it needed to optimize its enterprise resource planning (ERP) investments.

6. The perception gap problem

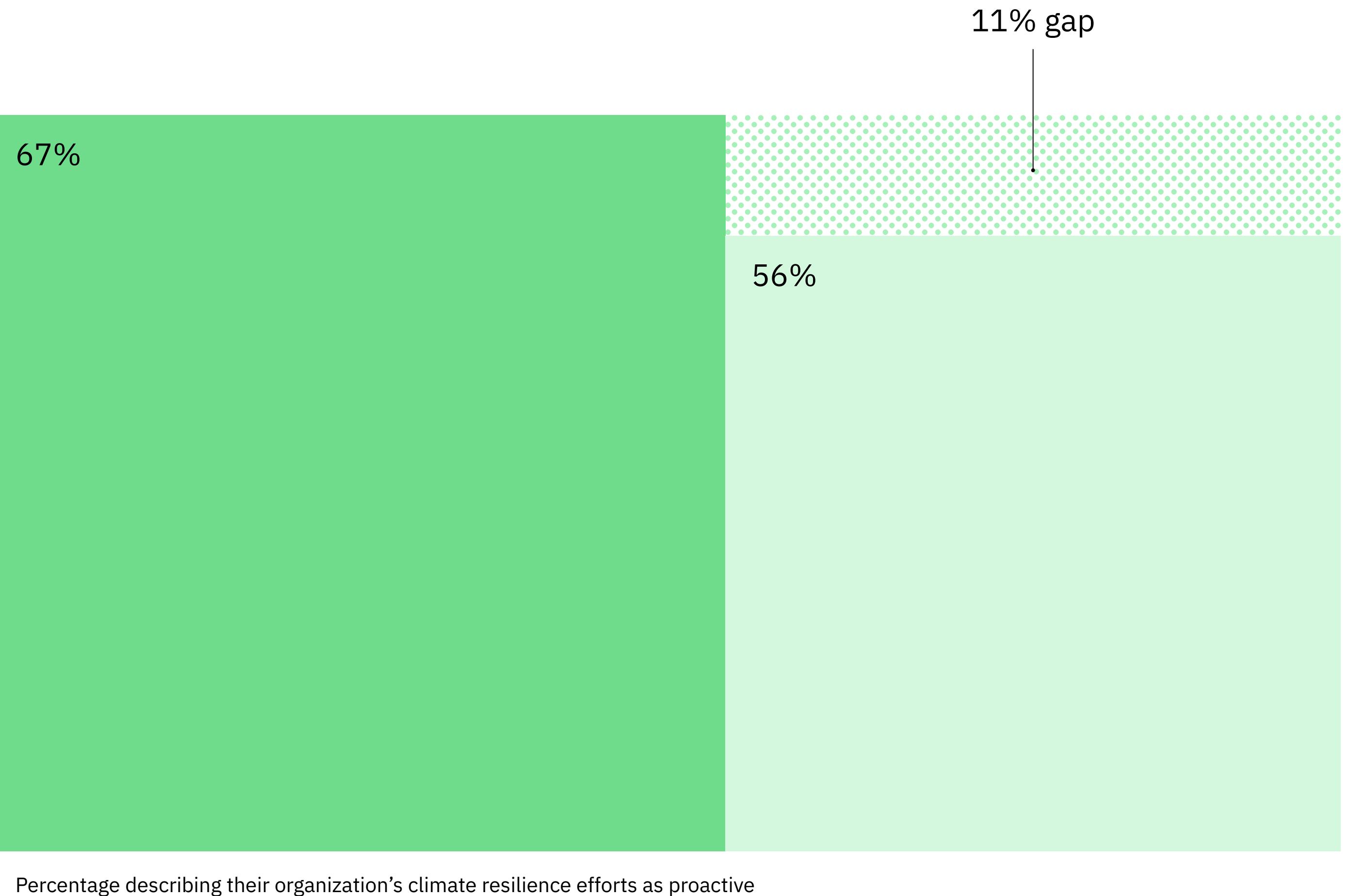
There's a real chasm in the ways organizations view the promise of AI and the way they actually use it. For instance, many industry leaders report a desire to bolster the resilience of their assets, infrastructure and supply chains in the face of potential climate hazards, but only half of respondents believe their data is mature enough to measure sustainability KPIs. Perhaps at the core of these disconnections is the perception gap that exists between C-suite executives and those more likely to implement operational decisions, with the former generally having a rosier perception than the reality.

Different perceptions between leadership levels can signal a divergence in direction or, perhaps worse, no direction at all. But it presents an opportunity for dialogue. In their responses, C-suite executives revealed a more optimistic outlook than the vice presidents and directors who work for them—and are more likely to implement operational decisions. The study revealed that while reducing potential damage from climate risk is a common goal, division can and does creep in when ambition (what we should do) meets action (how we can achieve it).



Business leaders' perceptions differ on approach to climate resilience efforts

Surveyed business leaders showed a marked divergence in their perceptions of readiness and active defense against climate risks. Top-level executives felt more proactive when addressing and acting on climate resilience efforts than lower-level decision-makers.



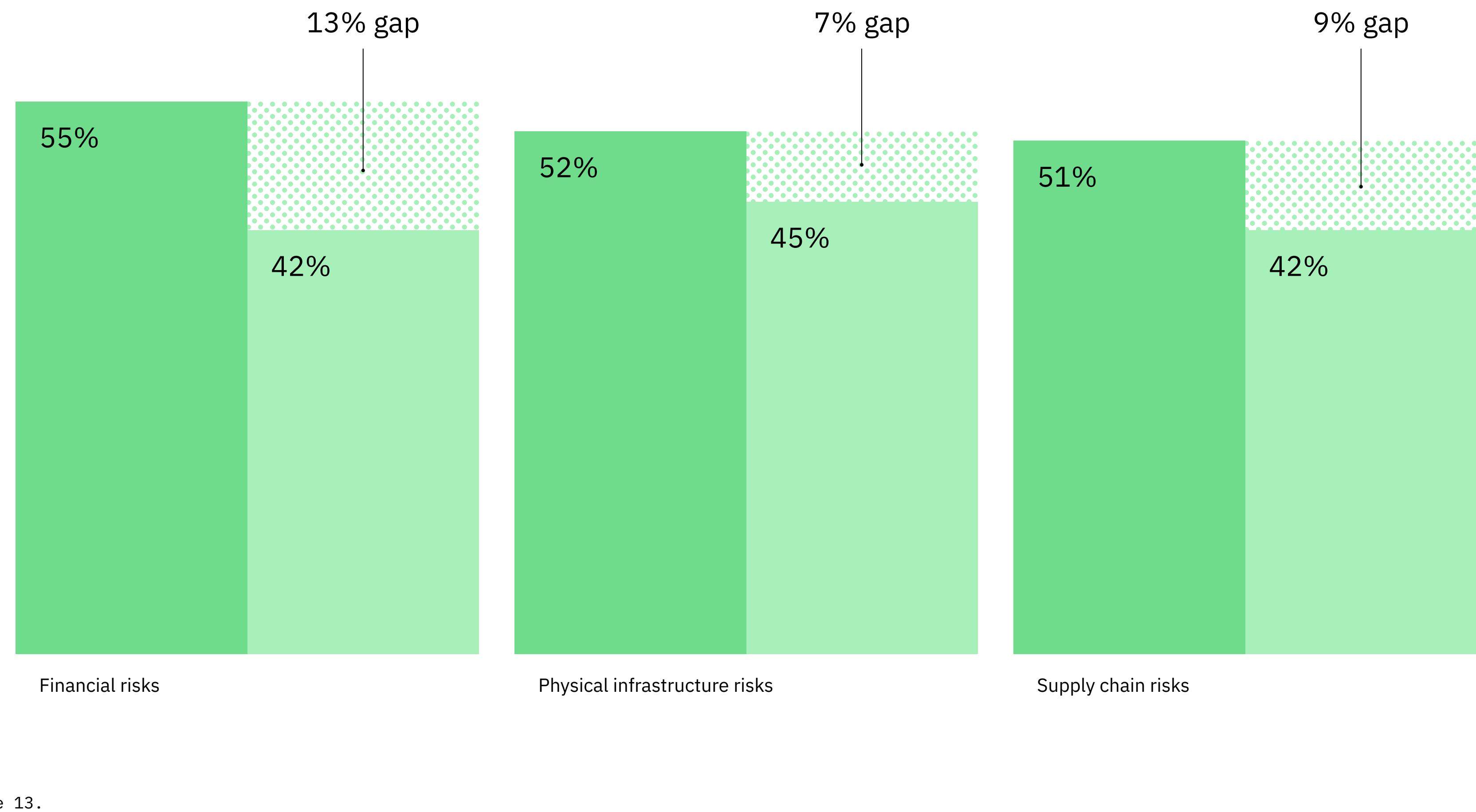
■ C-suite executives

■ Vice presidents and directors

Figure 12.

**Confidence levels about readiness
for climate risk factors diverge**

In their responses, C-suite executives revealed more confidence than vice presidents and directors that their organization was prepared to handle different aspects of climate risks. Financial risks represented the largest gap between the groups at 13%.



- C-suite executives
- Vice presidents and directors

Figure 13.

A photograph showing a person from the waist down, sitting cross-legged on a dark, textured mat. They are wearing a light-colored long-sleeved shirt and dark pants. A silver laptop is open on their lap; their right hand is on the trackpad, and their left hand is resting on the keyboard. The background is dark and out of focus.

Different leadership
perceptions present an
opportunity for alignment

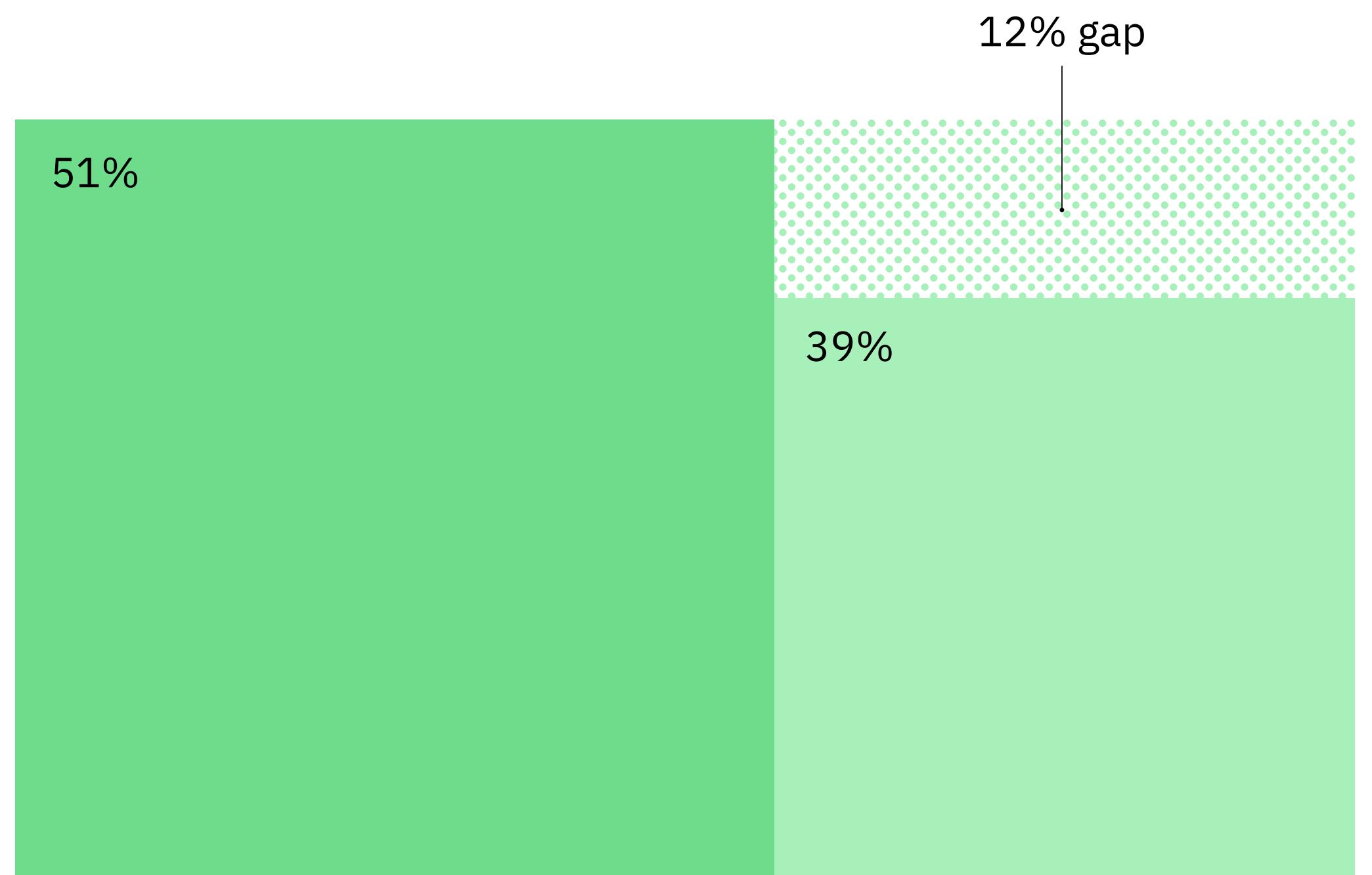


Figure 14a.

Business leaders have gaps regarding the impact of and use for AI in sustainability

As AI becomes more prevalent in operations, C-level executives tended to show a more positive outlook than vice presidents and directors about the impact that AI could have on achieving their sustainability goals and in the way their organizations put AI to use in sustainability efforts.

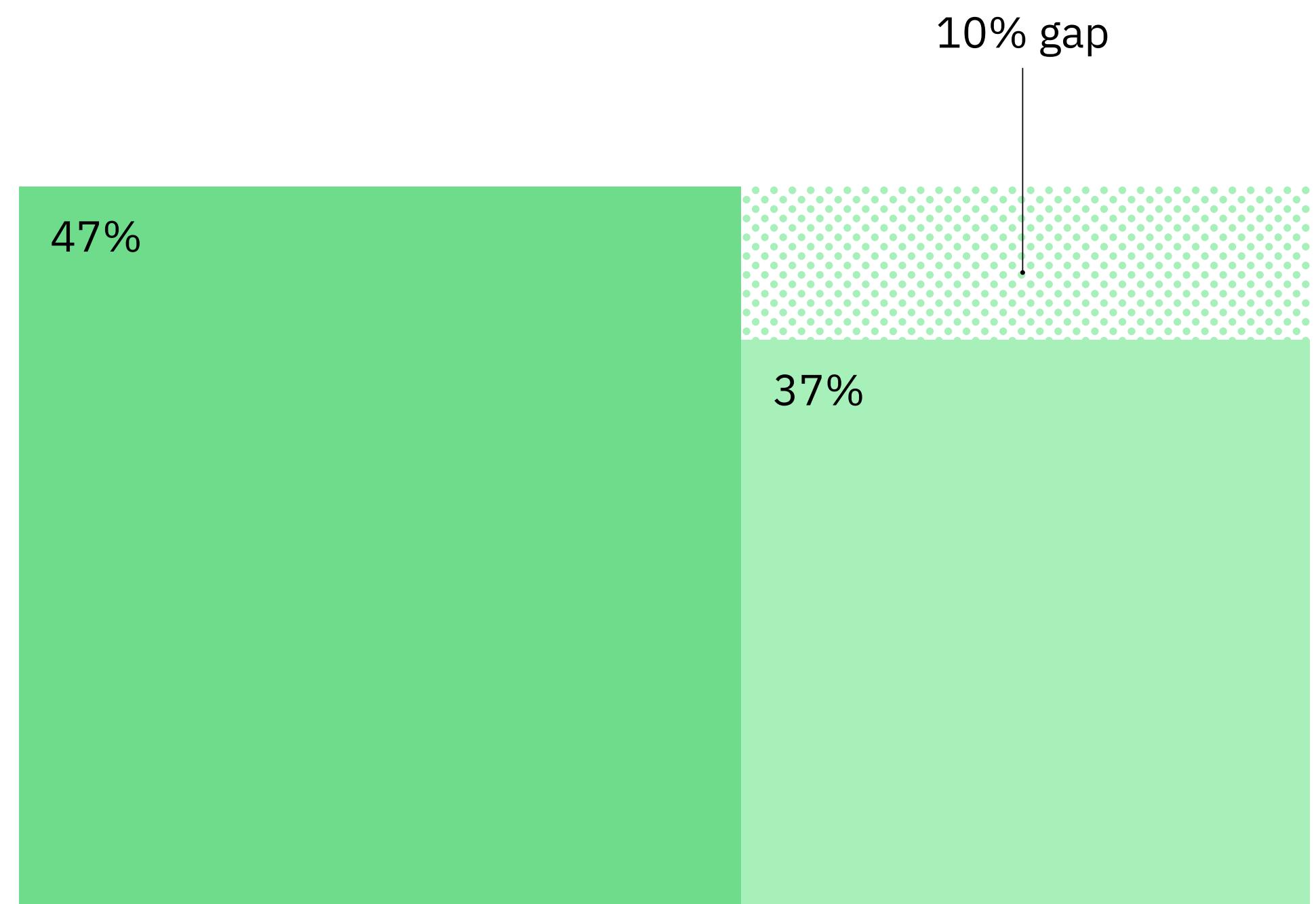


Figure 14b.

- C-suite executives
- Vice presidents and directors

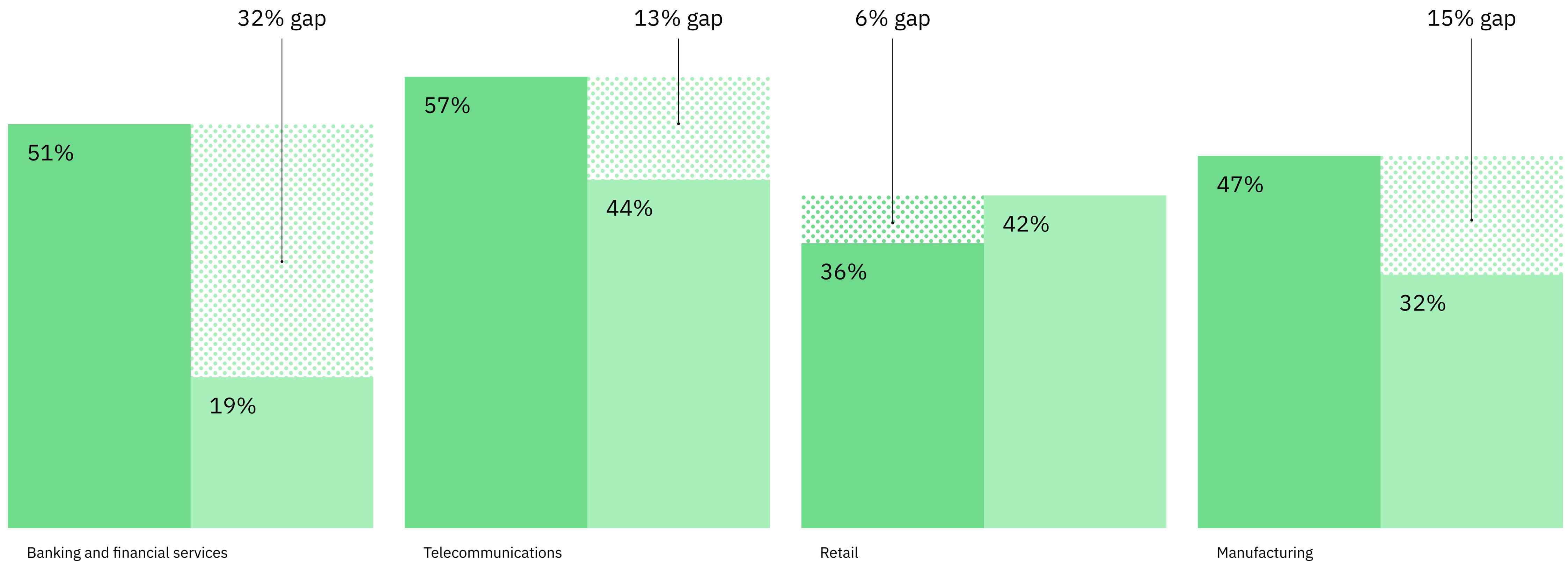


Figure 15.

Industries reveal perception gaps on the use of AI for sustainability efforts

When considering the impact of AI and its use for sustainability progress, leaders in the banking and finance industry presented the strongest divergence between C-suite and lower-level decision-makers. But responses from the retail industry showed the opposite, with 42% of vice presidents and directors stating their organizations were actively using AI for sustainability initiatives, as opposed to the C-suite executives' response of 36%.

- C-suite executives
- Vice presidents and directors

7. Recommendations for readiness

Sustainability challenges tend to carry over from year to year, but leaders said they feel those challenges more strongly this year than before. Even with the optimistic attitudes cited by C-suite executives, they accept they need to alleviate challenges as a whole organization. Here's how to address notable issues head-on.





1

Mind the gap

Organizations should use data to obtain a more holistic view of their operations and understand where the different perceptions between C-suite and other decision-makers originate. To keep an eye on changes and blind spots, use a [data analysis and reporting tool](#) to help maintain a state of readiness visible to individuals across the organization, so they can proactively come up with and implement solutions.

2

Invest in upskilling

To address the growing, seemingly infinite need for digital skills related to climate risk mitigation, the workforce must make an even stronger turn toward technology training. One way to start is with online skills-based courses that offer [free training and reskilling](#) with purpose-designed curricula for all skill levels. Organizations can also identify skills needs and bridge any existing and anticipated future skills gaps by tapping their ecosystem of partners.

3

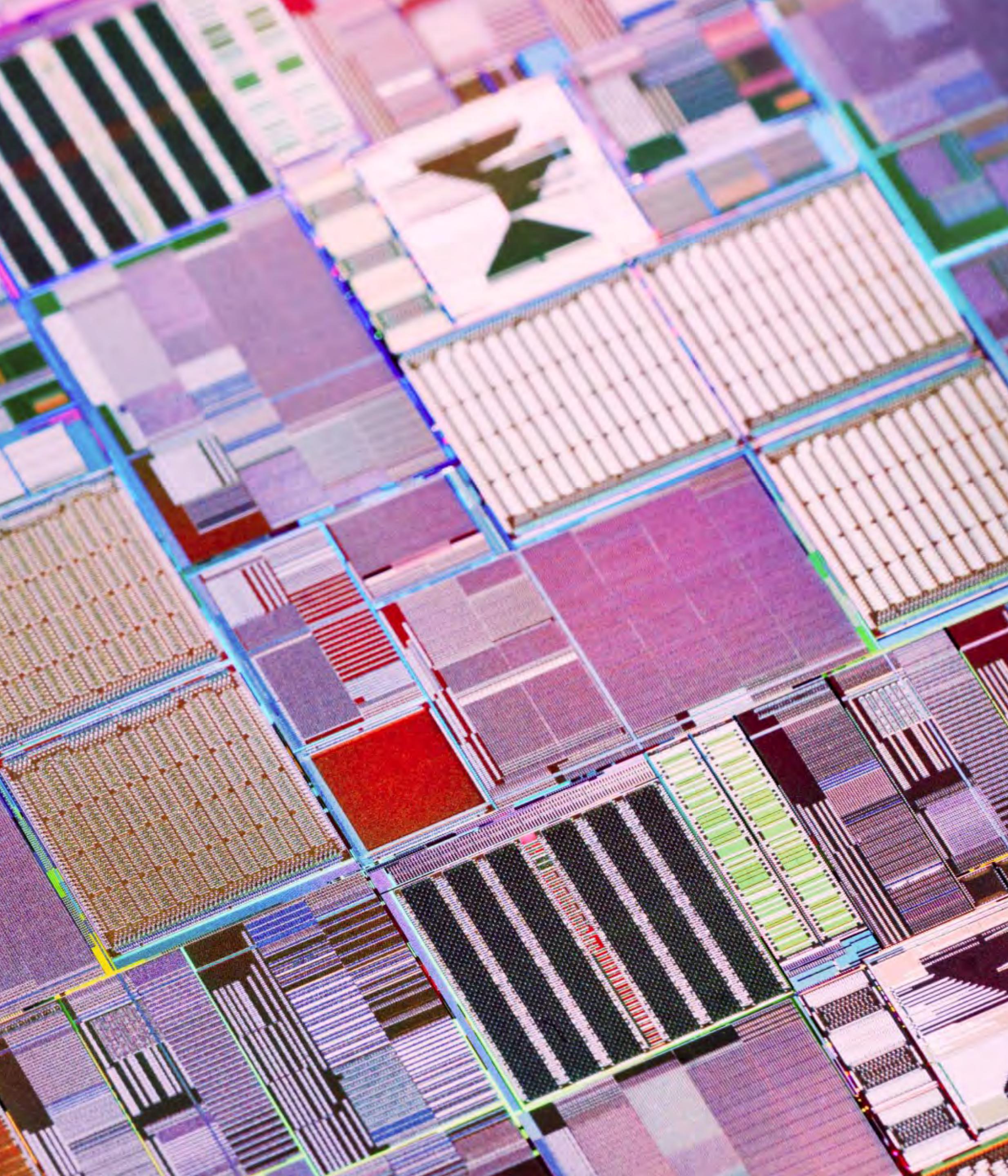
Invest in IT for smarter assets

Developing predictive maintenance practices can facilitate more efficient resource allocation and business operations. Consider investing in an [application suite](#) with intelligent asset management, monitoring, predictive maintenance and reliability planning in a single platform. This investment can enable your organization to optimize asset performance, extend asset lifecycles and reduce downtime and costs.

4

Invest in AI

Trusted AI tools can help save time and money in sustainability efforts. For example, generative AI can provide insights that help identify opportunities to reduce carbon emissions, [create scenarios](#) and algorithms for better practices, and simulate risk scenarios, including ephemeral details, such as weather or local disasters. An investment in AI can also help reduce the workforce skills talent shortage many executives identified in this report. The desire for expertise in AI and generative AI is documented, and an investment in that area can aid in filling the need. Explore [use cases](#) to increase your portfolio of ideas.



Methodology

This poll was conducted online by Morning Consult among a sample of 2,790 business leaders from each of these markets: the US, Canada, Brazil, the UK, Germany, UAE, India, Japan and Australia.

This report highlights global leaders overall and by market, along with the C-suite executives (high-level decision-makers) and vice presidents and directors (lowerlevel decision-makers).

To qualify as a vice president or director, respondents must be employed at a company with more than 1,000 employees and work as a director or vice president.

To qualify as a C-suite executive, respondents must be employed at a company with more than 100 employees and must be the owner or work in the C-suite. A significant proportion of the C-suite audience includes executives working at companies with more than 1,000 employees.



About Morning Consult

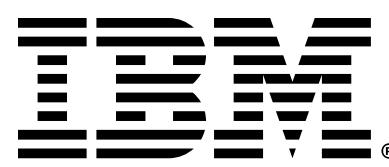
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IBM can help you plan a profitable path forward with open, AI-powered solutions and platforms and deep industry expertise that address your goals in 5 key areas: climate risk management; infrastructure and operations; supply chain; electrification, energy, and emissions management; and a sustainability strategy. For more information, visit ibm.com/sustainability or [subscribe](#) to receive sustainability updates.



1. Beyond checking the box: How to create business value with embedded sustainability, IBM Institute for Business Value, 27 February 2024.
2. World energy outlook 2023, International Energy Agency, October 2023.
3. AI is poised to drive 160% increase in data center power demand, Goldman Sachs, 14 May 2024.

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