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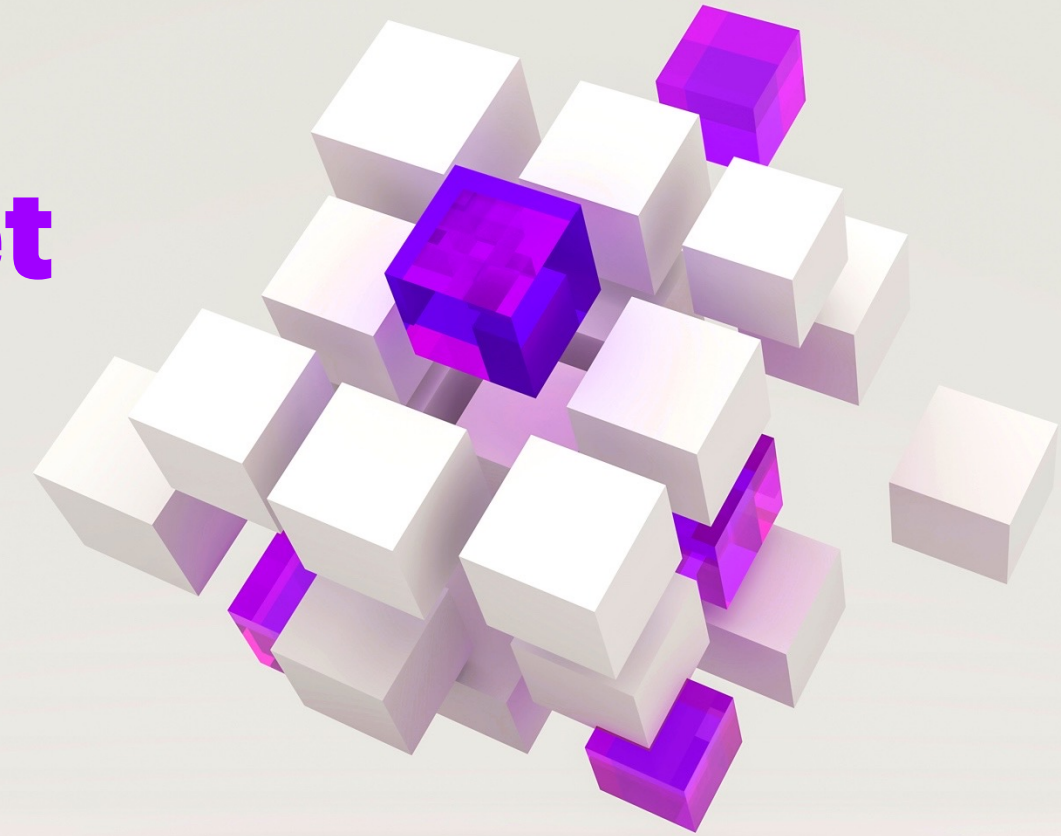
Oil and Gas Reinvention Index 2022

The reinvention reset

From bold plans to pragmatic actions



Meet the authors

Muqsit Ashraf
Lead – Strategy

Muqsit leads Accenture Strategy, a multibillion-dollar business unit across more than 40 industries in over 120 countries that helps clients tap new market opportunities and execute large-scale transformation initiatives. He is also a member of Accenture's Global Management Committee. Prior to this role, Muqsit led Accenture's Energy industry sector, helping companies reinvent to improve returns and become more sustainable. Muqsit attended Yale University and now lives in Houston.

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For more than 15 years, Aleek has been advising oil and gas leaders across the energy value chain on business strategy, large-scale transformation programs and enterprise innovation. He has a particular passion for helping energy leaders unlock and maximize the potential of their workforces. Aleek also leads Accenture's Energy Industry Assets and Insights team, which is responsible for producing market-leading thought leadership. Aleek earned an MBA from Carnegie Mellon University and lives in London.

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Diana works with oil and gas companies across the value chain in the US and Latin America, helping them optimize operations, develop their digital strategies and prepare their talent and organizations for industry shifts. More recently, she has been advising oil and gas leaders on how to reinvent their companies for the energy transition, including integrating new businesses into their portfolios. Diana earned an MBA from the MIT Sloan School of Management and lives in Houston.

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Lasse has 15 years of market and business research expertise in economic value modeling and indexing, along with global executive and consumer surveys. Most recently, his work has focused on the reinvention of the oil and gas industry, cross-sector energy transition topics and overall industrial decarbonization. Lasse speaks regularly at major industry events and is based in Düsseldorf.

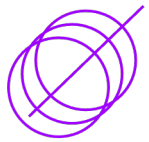
Special thanks to the following contributors: Pedro Beltramino, Piera Pedemonte, Mohd Arif and Gargi Chakrabarty.

Launched in 2021, Accenture's Oil and Gas Reinvention Index measures how successfully energy companies address the challenges of energy transition, their progress toward reinvention and the outcomes they want to achieve.

We base the index scores—and subsequent insights—on companies' actions and ambitions in five areas: **Competitiveness**, **Carbon, Connectivity**, **Customer** and **Culture** (see Figure 1).

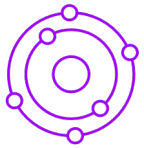
These "5Cs" reflect the current imperatives of the energy industry. They also provide a useful framework for transformation. We believe that addressing them holistically is the only way energy companies can achieve a step change in reinvention across the entirety of their value chains.

Figure 1.
Actions taken to address five imperatives (the “5Cs”) that underpin a step change in reinvention



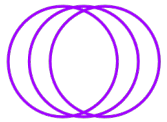
01
Competitiveness

Shape a resilient portfolio and operating model, including ways of working, that achieve incremental returns through cycles



02
Carbon

Achieve carbon neutrality by transforming/shifting investments, operations and products



03
Connectivity

Enable an intelligent and secure enterprise with end-to-end connectivity, optimization and autonomous capabilities

04
Customer

Deliver superior (B2B and B2C) customer experiences through design, services and formats/channels

05
Culture

Build a distinct purpose-led culture and employee experiences with an emphasis on innovation and agility

One of the most telling findings from our 2022 Reinvention Index research is that only half as many companies (11%) are pursuing “radical reinvention” compared to just a year ago (21%). These companies are moving beyond significant or fundamental change to dramatically transform how they will compete and thrive in the years ahead.

Global factors likely affecting the drop in radical reinvention this year include inflationary pressures, supply chain disruptions, and a new focus on energy security following Russia’s invasion of Ukraine. These, along with other localized issues, are impacting the scale, aggressiveness and expectations of energy transformations under way today.

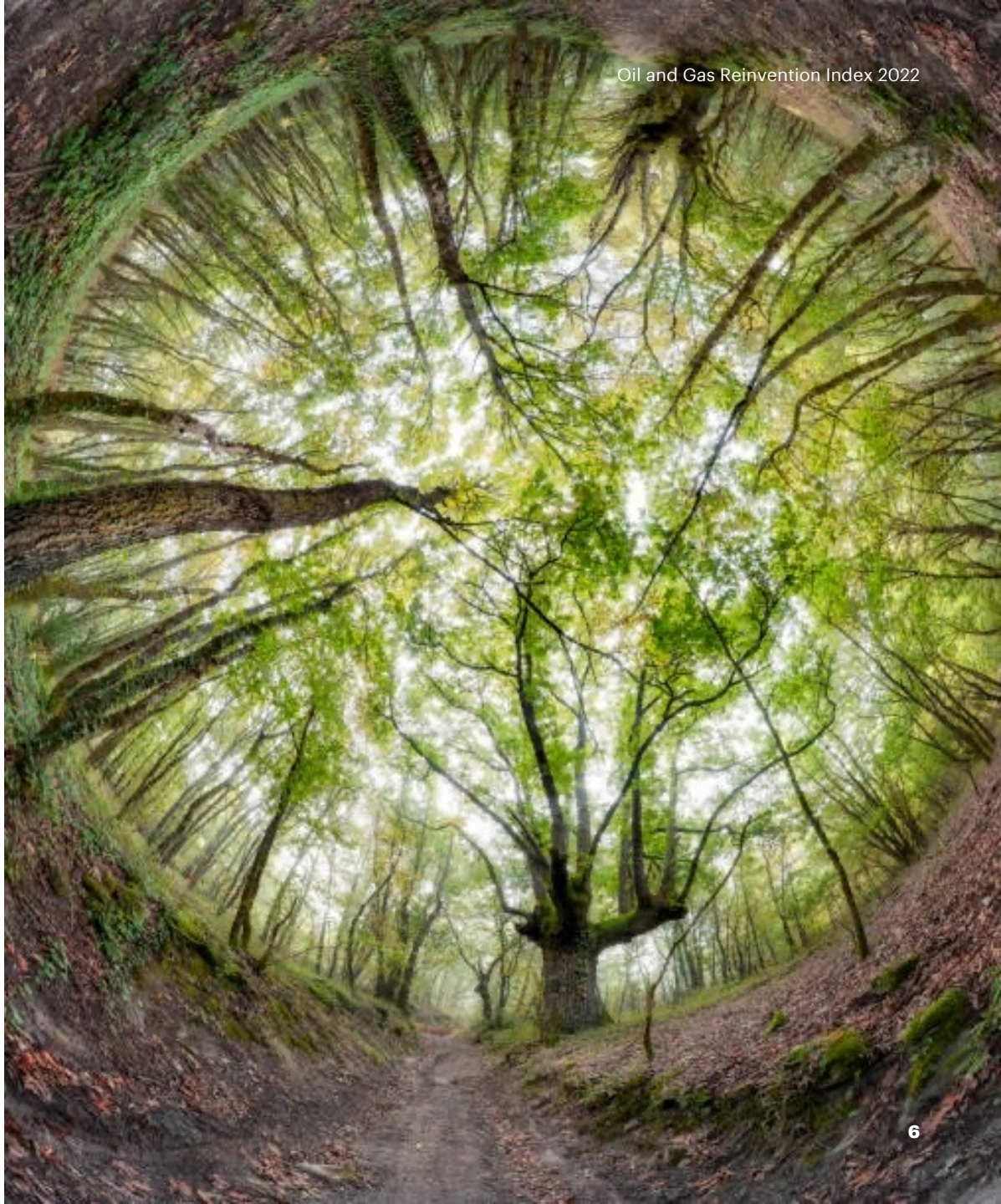
But this does not mean that reinvention has been paused. Rather, what our research shows is that certain imperatives, investments and expectations (such as those related to carbon reduction) are being tempered.

Only half as many companies (11%) are pursuing “radical reinvention” compared to just a year ago (21%).

We believe that radical transformation, typically limited to one or two areas within an organization, must evolve to a more balanced transformation across all 5C areas. Each area is a critical pillar of reinvention and should be prioritized equally.

This is not yet happening. However, this year's analysis suggests that companies are beginning to rethink reinvention and embrace a more holistic approach that addresses the enterprise in its entirety.

While leaders still prioritize competitiveness and carbon reduction, there are some signs that they are starting to pay more attention to their connectivity, customer and culture imperatives.



According to our 2022 research findings, leaders are adopting a more holistic approach to change than the laggards, which represent the lowest scoring 25% of companies in our survey.

For instance, when comparing the five-year plans of leaders and laggards, more than twice as many leaders intend to invest in natural gas/liquified natural gas (LNG). At the same time, leaders are twice as likely as laggards to invest more than 10% of their capital expenditure (CAPEX) in low-carbon businesses.

The leaders' holistic approach is also reflected in their expectation that digital connectivity will drive a 10% (or greater) improvement in carbon emissions, customer satisfaction and employee engagement over the next three years.

This report highlights the distinctions between the leaders and laggards and identifies the strategies and actions more likely to create a profitable, secure and sustainable future.

About the research

In early 2022, Accenture surveyed executives from 201 oil and gas companies around the world to understand the actions they are taking to meet the challenges of the energy transition, their progress toward reinvention and the outcomes they expect to achieve. For each company, we determined a Reinvention Index (RI) Score, composed of equally weighted scores from each of the 5Cs of reinvention. Based on this assessment, we were able to identify the 10% of companies leading the race to reinvention, as well as the 25% that are not yet taking integrated actions. For more information regarding the research and its methodology, see pages 95-96.

Why reinvent?

As energy companies look to stake their claims in the future energy system, they face a set of challenges that have been years in the making.

Growing energy demand (requiring an expanded energy system), competition from new energy providers, the call for more sustainable energy sources and operations, and the lack of talent to drive new energy solutions and revenue streams are just a few of the persistent forces that are changing everything from energy companies' purpose to their operations and, specifically, how, where and with what assets they will compete.

Over the past year, additional disruptive forces have emerged and placed even more strain on energy companies.

The post-pandemic surge in economic activity, coupled with the war in Ukraine, have created a significant supply/demand imbalance—a gap that will be difficult to close in the short term. Additionally, our analysis suggests that growing inflationary pressures, coupled with significant supply chain disruptions could place more than 20% of the industry's CAPEX growth plans at risk this year.[1] These new forces threaten the industry's ability to ensure global energy security, defined as the presence of affordable and accessible energy for all.

50%

As global GDP and populations grow, it is estimated that demand for secure and sustainable energy will grow by approximately 50% over the next three decades.

80%

Hydrocarbons will play a major role in the future energy mix. But the share of fossil fuels will slowly fall, from 80% today to 50% by 2050.[2]

To address the structural shifts, challenges and disruptions roiling the energy industry, companies have no choice but to reinvent. This means reconsidering what they stand for. What they invest in. How they compete. And how they measure and deliver value to customers, investors and employees.

Increasingly, companies are looking to transform every part of their business—from building a strong digital core to optimizing operations to accelerating their growth agendas.

We call this approach to change "Total Enterprise Reinvention."

What our 2022 research found

21
Leaders

The top 10% of companies—with an average Reinvention Index (RI) score of 63—are leaders in the reinvention race. They are taking decisive, holistic actions to bolster multiple capabilities across the value chain.

131
Followers

Most companies fell in the middle of the pack. They are taking some steps to fundamentally change their business or operating model but falling short of true reinvention.

49
Laggards

The bottom 25% of companies can be considered “laggards.” With an average RI score of 50, these companies are not yet taking integrated actions or making investments to build a balanced, profitable and sustainable future.

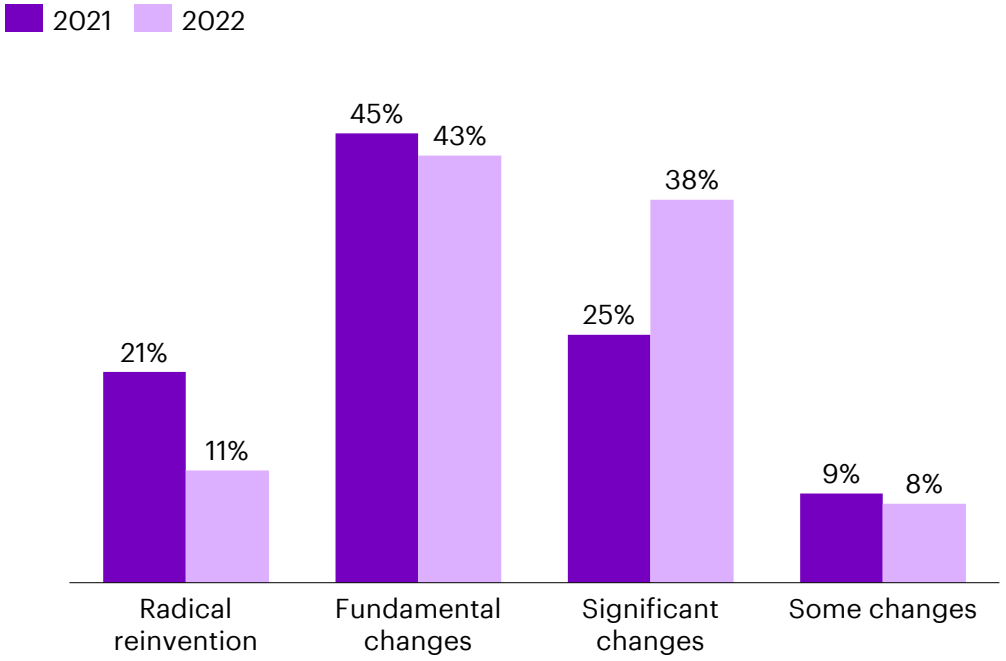
Is the appetite for radical reinvention waning?

Arguably, one of the most surprising findings in our 2022 research shows that only half as many companies (11%) are pursuing radical reinvention compared to just a year ago (21%).

We believe the slowdown in reinvention plans is likely related to the uncertainty in global commodity prices and the newly recognized threat to energy security in parts of the world that have traditionally enjoyed energy access and affordability. These conditions, together with local factors such as extreme weather, have tempered companies' boldest plans for reinvention.

Figure 2.
The pace of radical reinvention has declined

Extent of plans to reinvent company toward 2025 given macroeconomic shifts and energy transition
(Percentage of total respondents)



That's not necessarily a bad thing. While energy companies may be responding to macro-economic shifts and energy transition pressures in the near term with less intensity than they did last year, the leaders especially are demonstrating a more holistic approach to reinvention. Rather than taking radical actions in one or two areas, they are taking more measured steps across all the 5C areas.

This is supported by the fact that nearly half of the companies we surveyed are planning to institute fundamental changes. And more than a third are planning to reinvent with what they consider to be "significant" changes, up from just a quarter last year.

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Expectations for returns are more achievable

One of the most interesting findings in last year's survey was the extraordinary optimism leaders felt about their reinvention strategies. They were quite confident that their decisions to focus on competitiveness, carbon and connectivity would pay off handsomely in terms of operational efficiencies and margin and revenue growth. Laggards were much more modest in their expectations.

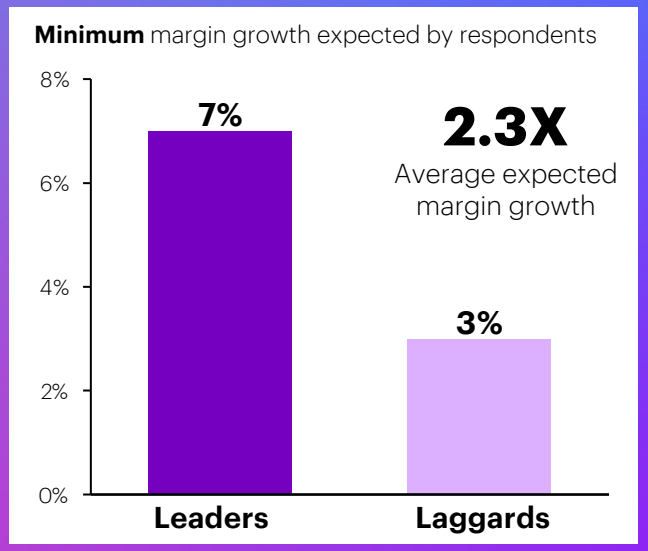
Fast forward a year and all energy companies are rethinking the benefits of reinvention. We believe they are settling on more achievable expectations, borne of pragmatic and holistic actions (see Figure 3).

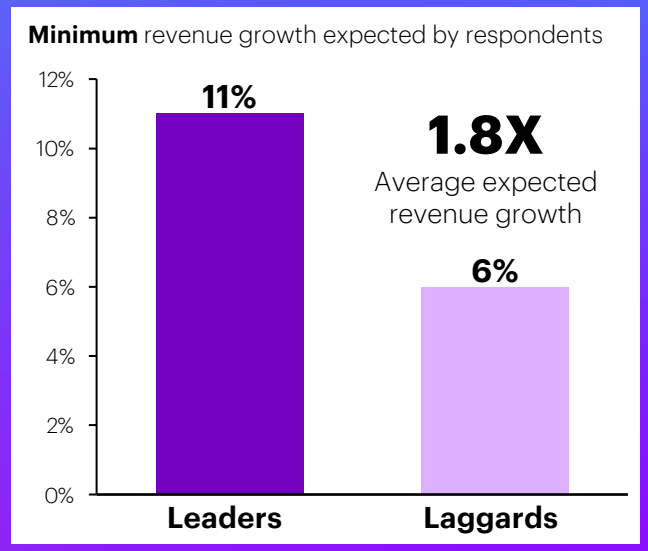
Also, energy companies are now benefitting from higher commodity prices and industry profitability over the past year. These factors are setting a higher baseline for returns. So even though energy companies are setting more modest expectations for measurable outcomes, the potential industry value that can be unlocked is enormous.

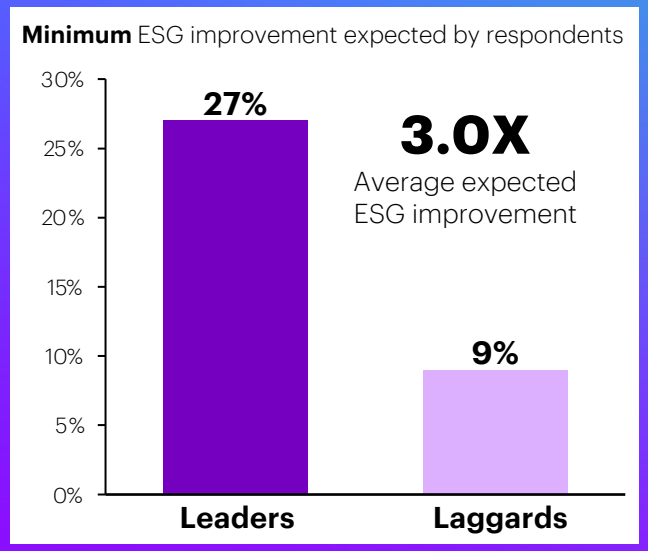
If all industry players were to achieve leaders-level ambitions, the industry value that could be generated may near $700 billion per year.

Figure 3.
In 2022, the energy industry has lowered its reinvention expectations

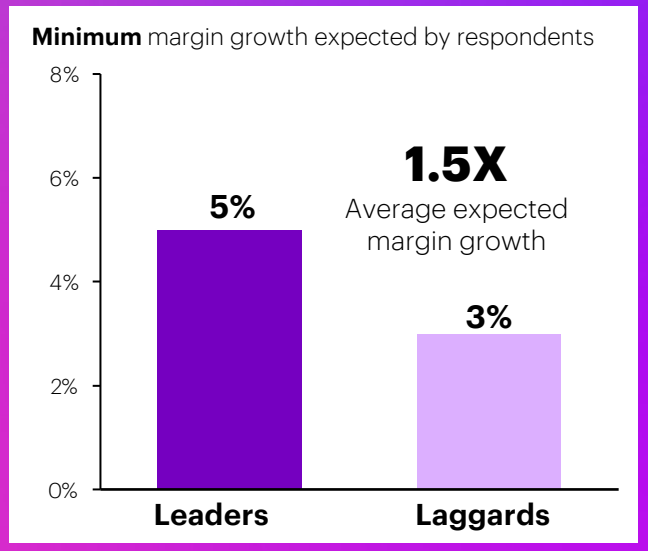
2021

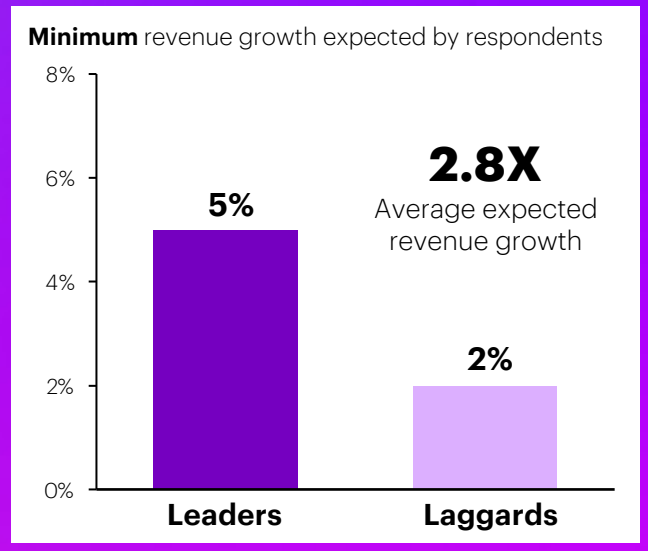


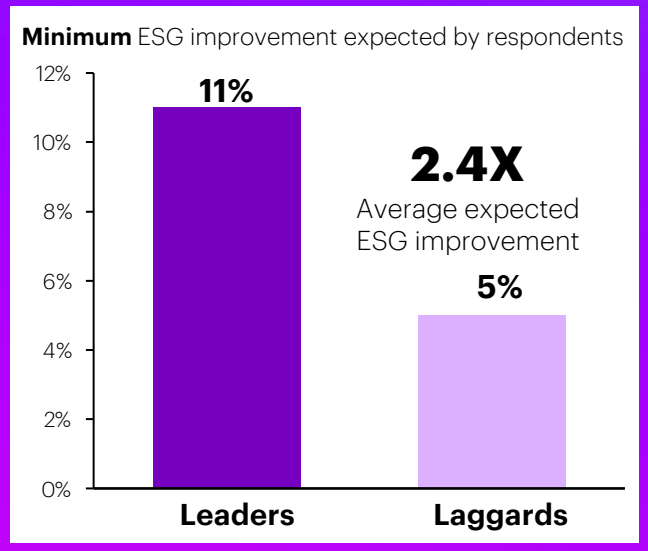




2022







The reinvention priorities have generally remained the same

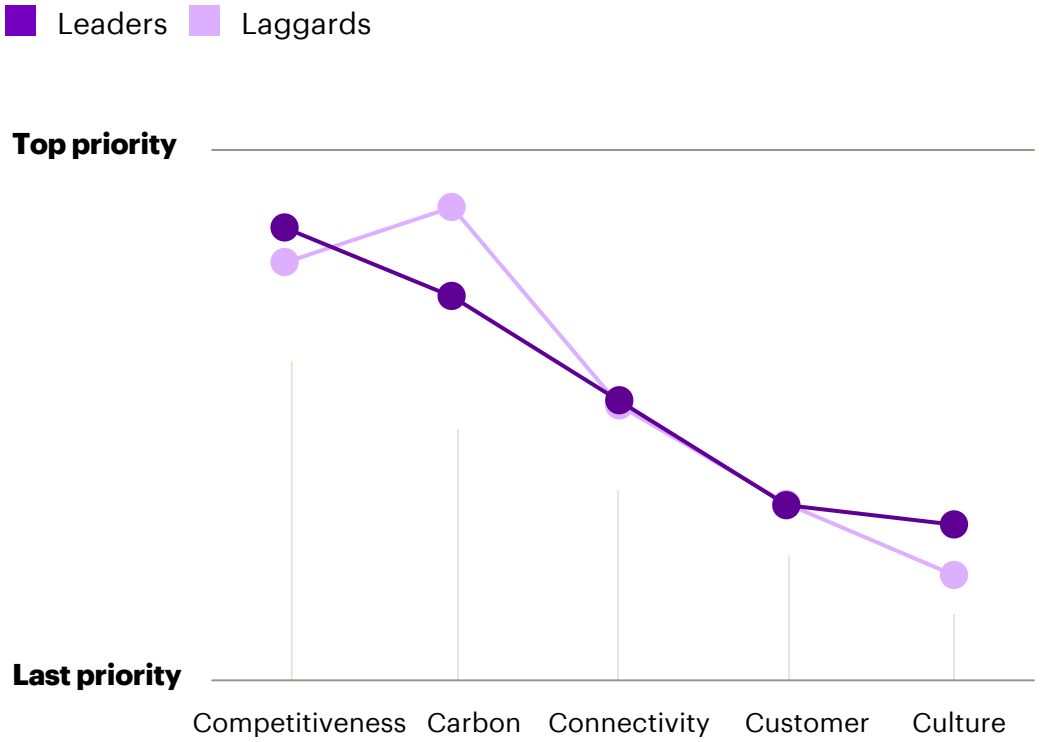
The rankings of 5C priorities are fairly consistent among leaders and laggards—and quite similar to rankings from 2021. Last year's Reinvention Index revealed that both leaders and laggards considered competitiveness to be their top reinvention priority. In 2022, leaders are continuing to emphasize competitiveness. Laggards, on the other hand, are now more focused on carbon as the main driver of their reinvention strategies (see Figure 4).

Beyond this difference, both leaders and laggards are still much less inclined to prioritize connectivity, customer or culture. We believe this poses an obstacle to achieving reinvention. Because each of the 5Cs is a critical component of reinvention, they should be prioritized equally.

There are, however, some encouraging signs that leaders (and laggards, to a lesser extent) are recognizing that success amid long-term market disruptions will depend on a holistic and realistic approach to portfolio allocations, growth, digital innovation, organizational change and environmental, social and governance (ESG) performance. In other words, they are adopting a more balanced approach to transformation, even if that balance is not yet reflected in their reinvention priorities.

Figure 4.
In 2022, leaders and laggards have similar priorities

Area in which organization is focusing its reinvention (weighted average)



Energy security is now top-of-mind, along with sustainability.

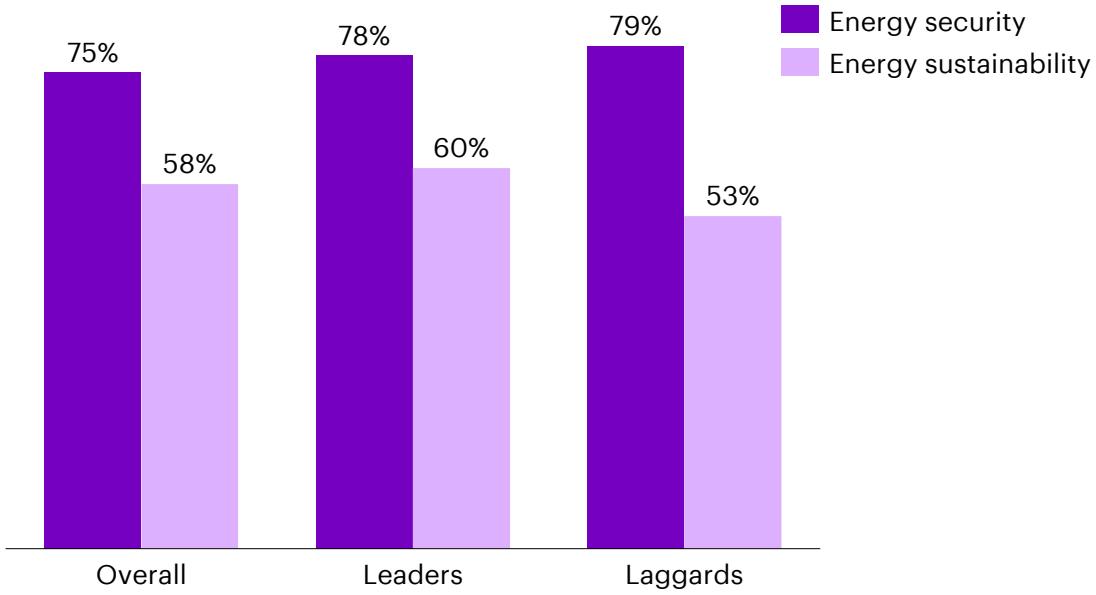
Given the events of the past year—notably, the war in Ukraine and subsequent threats to energy supplies in Europe—energy security is considered more important than energy sustainability by both leaders and laggards (See Figure 5). Laggards are slightly more focused on security, which makes sense considering they are likely more concerned about managing and maintaining their operations when supplies are tight.

Importantly, however, companies across the spectrum indicate they are increasing their focus on both security and sustainability. Leaders are taking a more balanced approach. Laggards are focused more strongly on energy security, despite citing carbon as the main driver of their reinvention strategies.

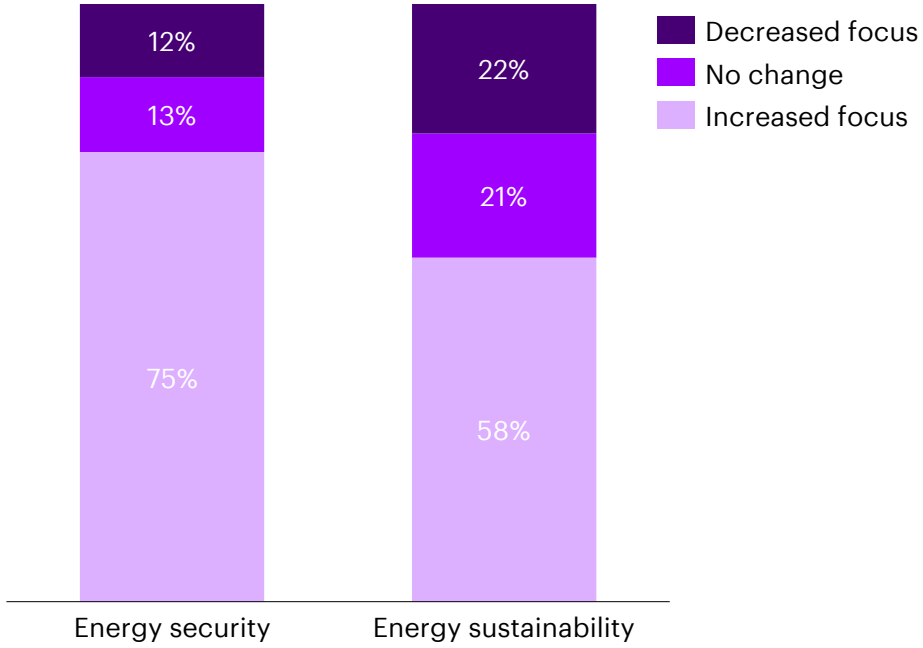
Figure 5.

Energy companies are increasing their focus on both energy security and sustainability

Percent of respondents that have increased their focus on energy security and sustainability due to recent geopolitical events



Change in focus on sustainability versus security

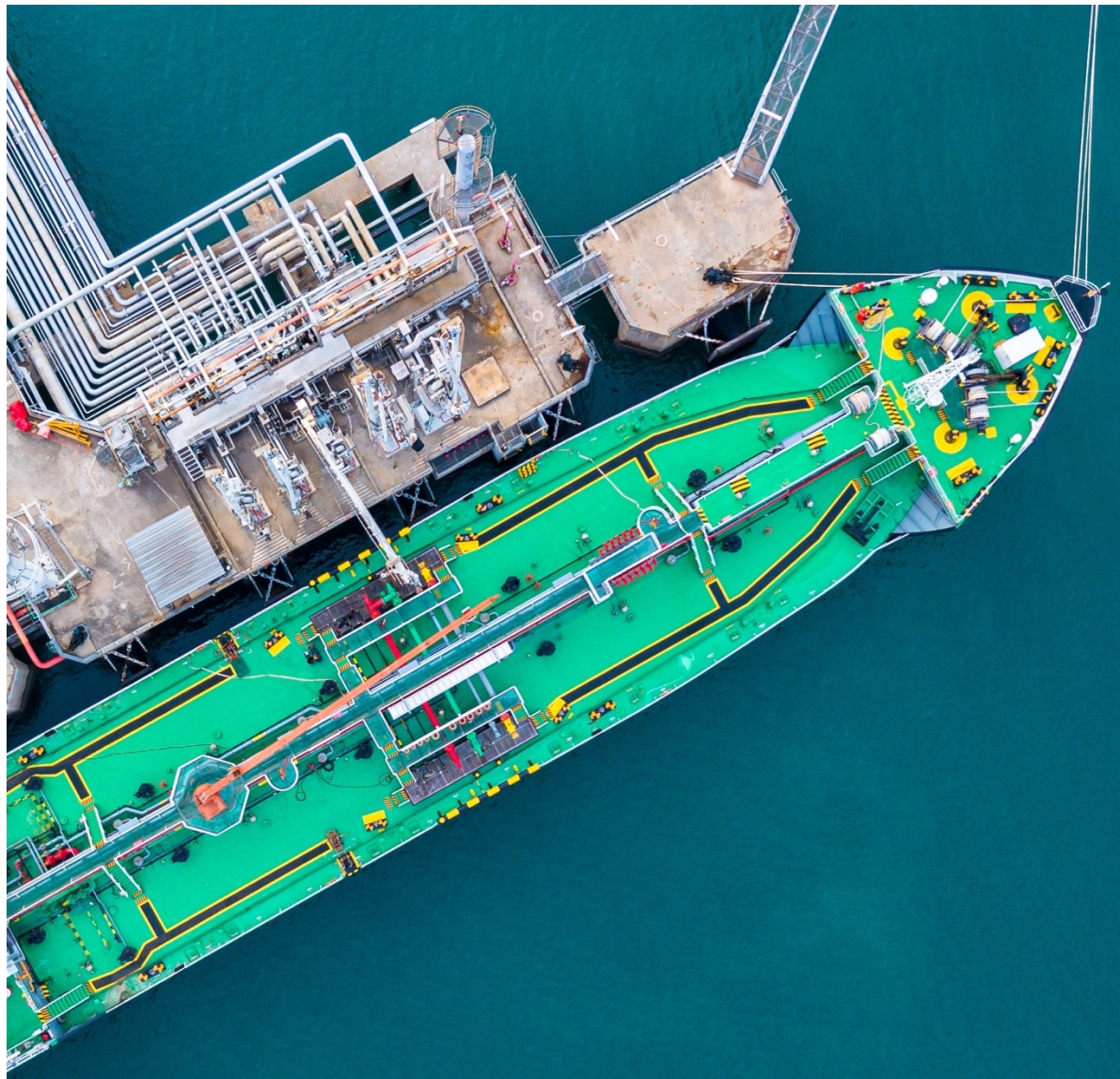


Reinvention is aligned to expected disruptions

While today's geopolitical events are influencing the reinvention strategies of both leaders and laggards, neither group sees geopolitical uncertainty as the main disruptive event over the next three years. Both groups see supply chain issues as a threat to their competitiveness and the main disruptive force prompting future reinvention (see Figure 6).

But there are notable differences between these two groups, too. For example, laggards are more concerned about growing pressures to improve their environmental, social and governance (ESG) performance—an area they have underweighted in the past. Similarly, they are seeing talent shortages as a driver of reinvention. This is also likely due to the fact they have historically paid less attention to the cultural aspects of reinvention than the leaders. They have farther to go in boosting their ESG and talent abilities and see their gaps now as decelerators of reinvention.

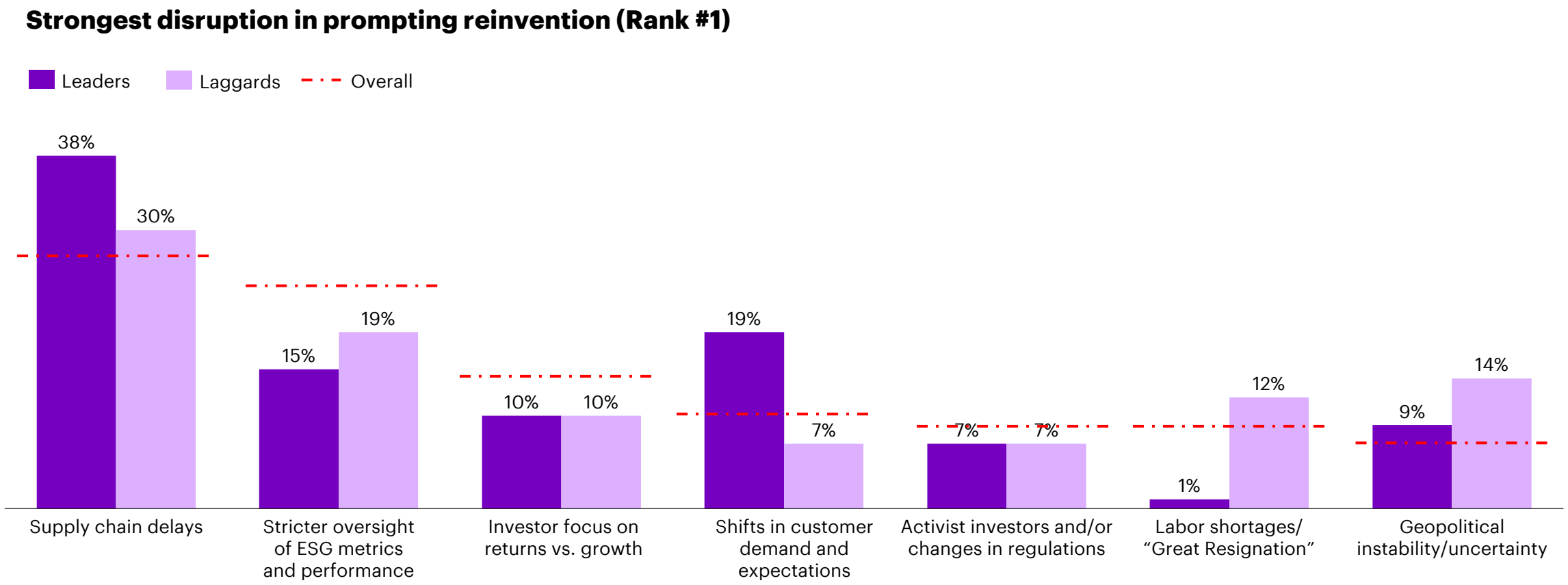
Both leaders and laggards see supply chain issues as a threat to their competitiveness and the main disruptive force prompting future reinvention.



Leaders, on the other hand, see shifting consumer expectations as a potentially strong driver of change. For them, understanding long- and short-term demand changes across their consumer base is a first step toward building customer-centricity—a factor that is still very much downplayed by laggards.

Figure 6.

Over the next three years, supply chain disruptions will play the strongest role in prompting reinvention



01 Competitiveness

This element of reinvention relates to an organization's ability to achieve incremental returns across cycles, primarily through the creation of resilient portfolios and operating models.

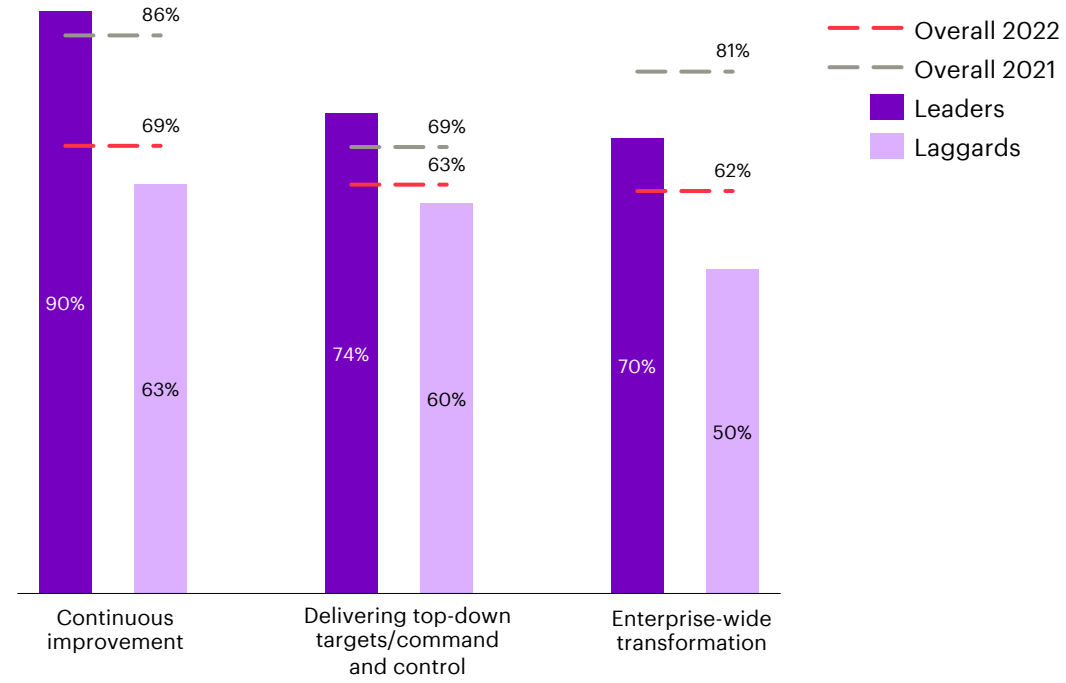
Enterprise-wide transformation is essential to competitiveness

With today's high commodity prices, the industry's appetite for transformation remains relatively strong. 84% of leaders indicated that rising prices are translating into increased funding for transformation programs. Only 64% of laggards are making the same commitment.

To strengthen their competitiveness, leaders are more likely to focus on continuous improvement, command and control structures, and enterprise-wide transformation than the laggards (see Figure 7). While the overall consideration of these approaches as very important or essential has declined this year, the majorities of both groups are still embracing them.

Figure 7.
Leaders are adopting various approaches to boost their competitiveness

Percentage of respondents considering each competitiveness approach "very important" or "essential"



70% and 50%

We are particularly encouraged to see **70% of leaders and 50% of laggards** view enterprise-wide transformation as a critical component of competitiveness.

Our work in multiple industries suggests that broad-based and holistic transformations are, indeed, key to a company's future competitive positioning.

Competitiveness hinges on a balanced portfolio

Accenture estimates that global demand for energy will grow by approximately 16% over the next 15 years.[3] While oil and gas will account for nearly half of the world's energy consumption in 2035, demand for oil and (to a lesser degree of likelihood) natural gas may peak in the next decade as new technologies and alternative energy sources become more competitive.

But even as oil and gas lose share in the global energy mix by 2050, total volumes of both are expected to grow for at least the next decade, and possibly beyond.[4] Energy security will, therefore, depend on maintaining oil and gas production for now. As described in Balance of Power, a near-term focus on energy security vis-à-vis hydrocarbon production may result in companies paying less attention to non-hydrocarbon investments. But we believe any imbalance between security and sustainability will be short-lived.

In fact, we believe leaders' emphasis on energy security today will accelerate their actions to achieve net zero over the medium and longer term. Why? Because they are not losing sight of the fact that future energy security will depend on a more diversified mix of energy sources. Leaders' near-term focus on energy security is poised to provide a catalyst for more ambitious and achievable sustainability actions in the years ahead.

We believe leaders' emphasis on energy security today will accelerate their actions to achieve net zero over the medium and longer term.

To compete effectively in the future, energy companies across the value chain will need to adjust their asset portfolios to offer the near-term energy security and longer-term energy sustainability that the world requires.

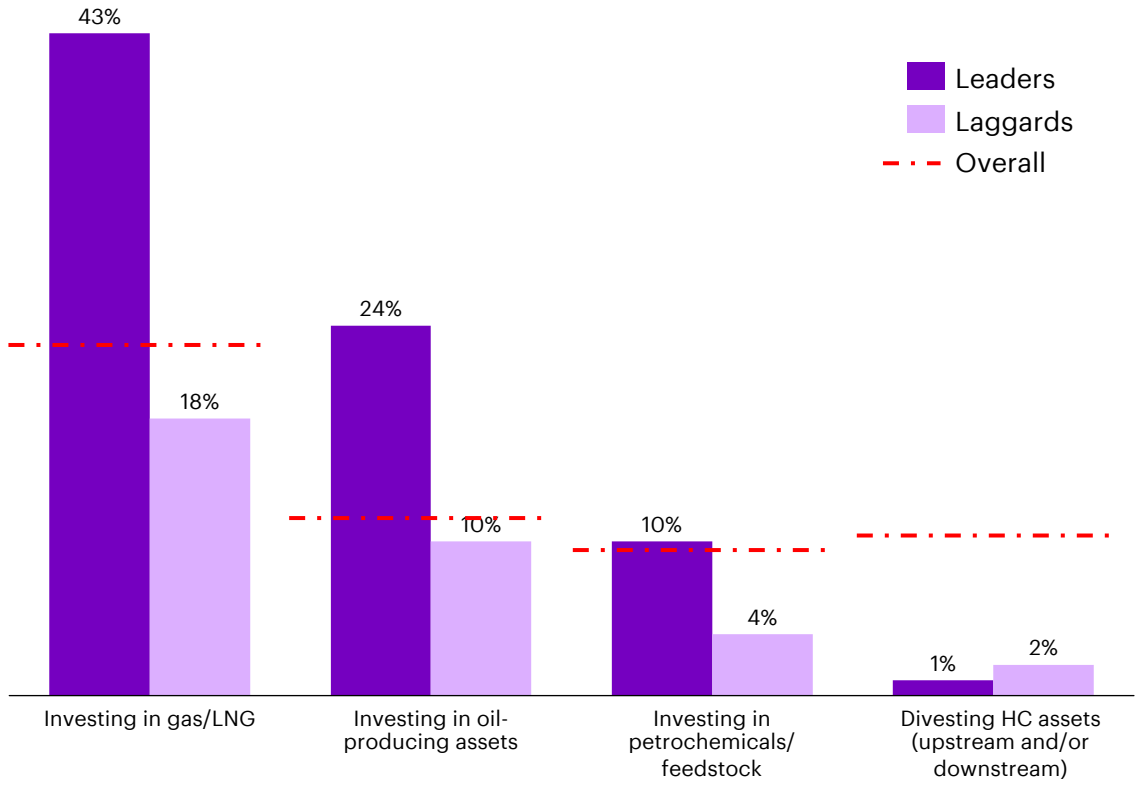
Our Reinvention Index research shows that such a readjustment is underway. Leaders are more inclined to move their portfolios (back) toward hydrocarbons in the next five years (see Figure 8). Laggards are more focused on decarbonization solutions and alternative fuels. This may be because leaders have already shifted their focus to non-hydrocarbons in recent years. As they now reset to address short-term energy security, they are recognizing that non-hydrocarbon solutions, alone, will not provide the security that is now required.

Conversely, laggards have likely been slower in recent years to ramp up their non-hydrocarbon capabilities. They are now looking to make up for lost time. Both groups are rebalancing to ensure a more diverse energy mix—one that addresses both the energy security and sustainability imperatives.

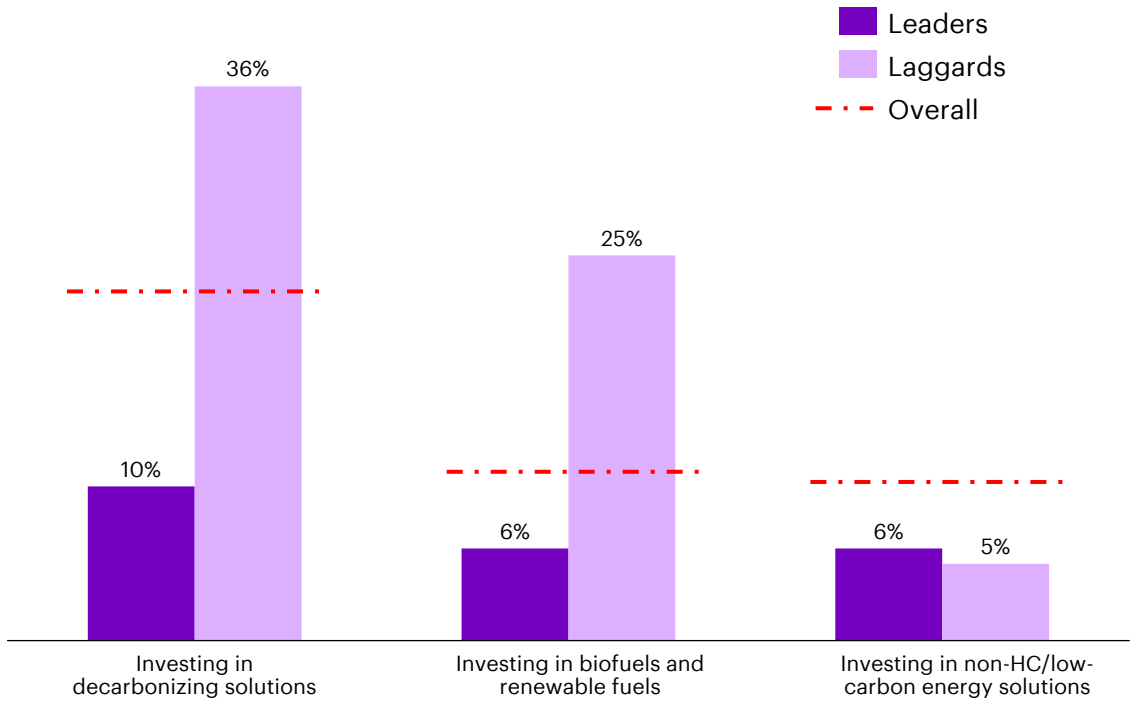
Figure 8.

Leaders and laggards are taking different approaches to improving their competitiveness in the next five years

Percentage of respondents that are changing their portfolio toward hydrocarbons in the next five years



Percentage of respondents that are changing their portfolio toward non-hydrocarbons in the next five years



The competitiveness payoff

Among the leaders in our survey, expectations for a positive impact from their competitiveness initiatives are not as high as they were in 2021. Expectations for lower returns on capital employed (ROCE) are likely due to higher commodity prices (and, consequently, a higher basis of growth). Overall, leaders are more optimistic that their actions will improve their returns, ESG performance and free cash flow (FCF) (see Figure 9).

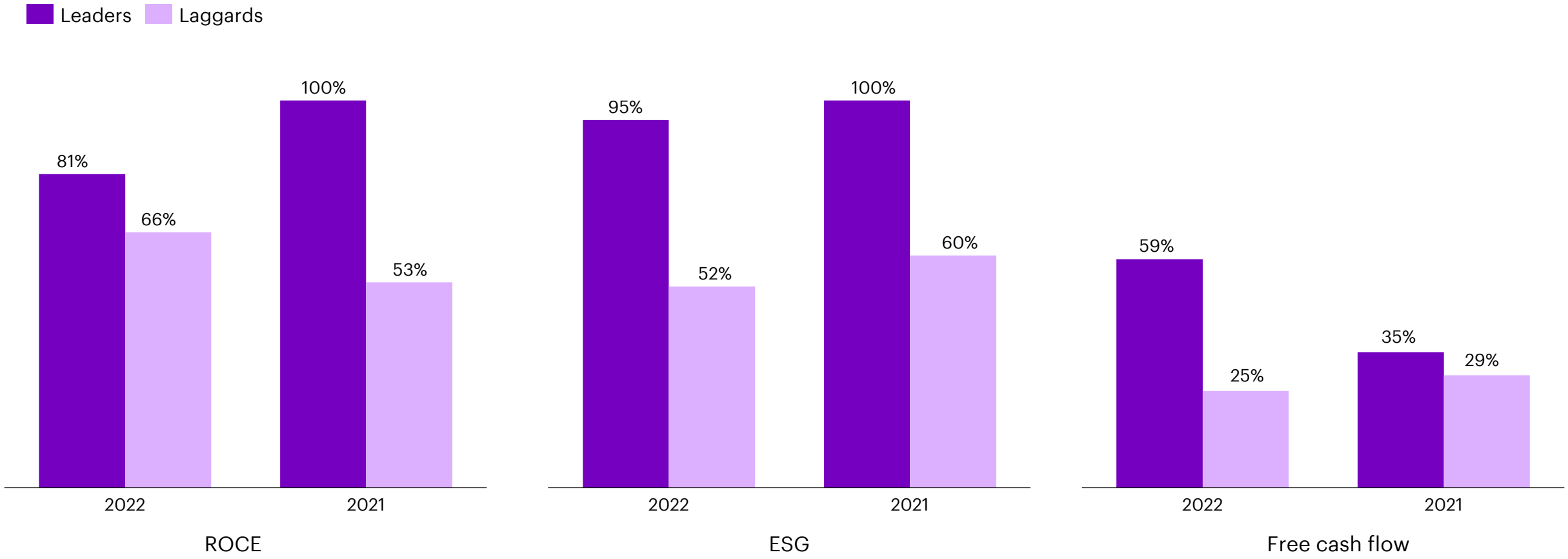
Laggards are generally less confident. There is an exception, however, when it comes to ROCE. In that area, 13% more laggards are expecting a strong impact from their competitiveness strategies than in 2021. This suggests they are more confident that they are now investing in assets and capabilities that will generate rewards.

Overall, we believe the industry's tempered expectations this year are more realistic than in 2021. Further, we believe leaders' continued optimism is warranted. Leaders in 2021 outperformed laggards in EBITDA growth and returns on capital. We have no reason to believe this year's leaders won't continue enjoying better outcomes and resilience.

Figure 9.

More leaders than laggards expect their competitiveness initiatives to have a positive impact over the next three years

Percent of respondents expecting competitiveness initiatives to drive strong impact on ROCE, ESG and FCF



Expectations for margin improvements plummet

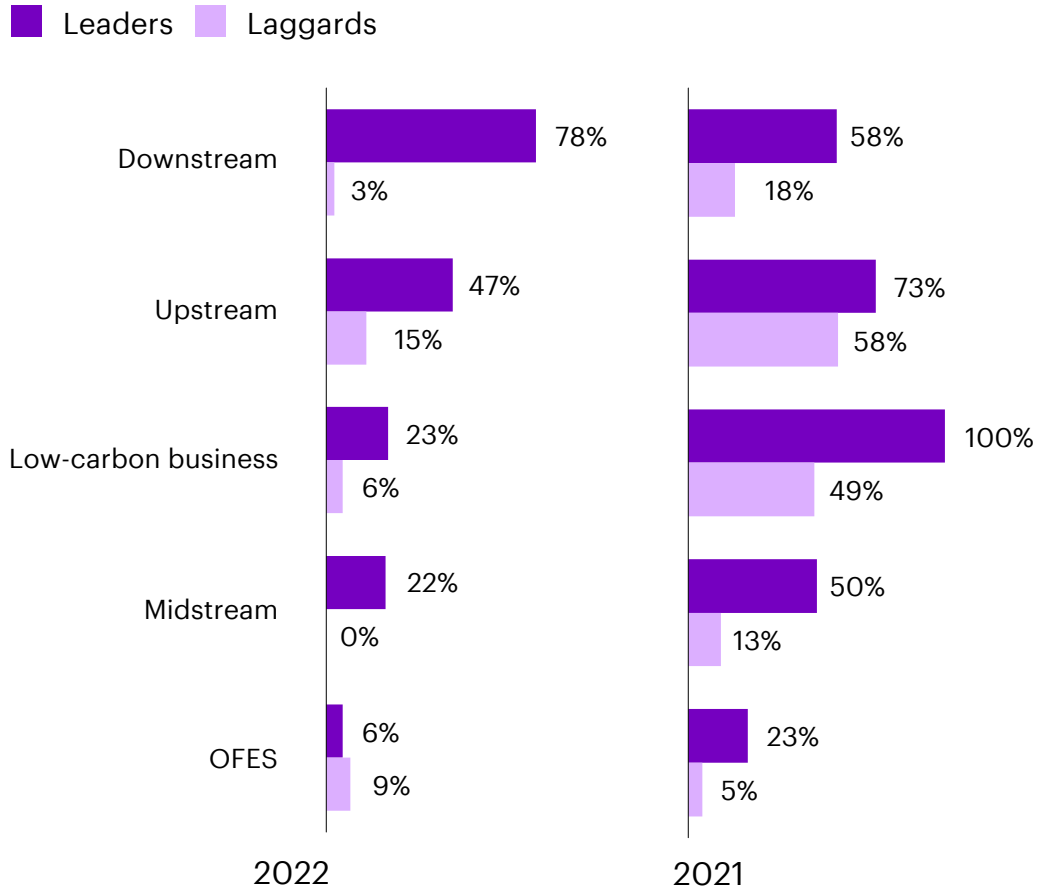
Both leaders and laggards have significantly lowered their expectations for margin improvements, despite the current high-price cycle (see Figure 10). The high basis for further growth, along with a high inflationary environment, recession fears and ongoing supply chain disruptions are likely contributing to this drop in enthusiasm.

The decline is most noticeable in the low-carbon business space. Last year, 100% of leaders believed their low-carbon investments would generate margin improvements of at least 10%. This year, only 23% agree.

One bright spot appears to be among downstream businesses. High commodity prices and tight refining capacity are fueling leaders' expectations for profitability.

Figure 10.
In most areas of their businesses, energy companies have lowered their expectations for margin growth

Percentage of respondents expecting margin improvements of at least 10% in the next three years from



As with the other expected financial and performance improvements revealed in our Reinvention Index survey, this year's margin expectations are more achievable.

10%

Energy companies anticipate margins to improve across the value chain—just not by 10% or more.

The drivers of margin improvement differ for different types of energy businesses (see Figure 11).

For example:

In the upstream space, investments in digital technologies can improve drilling times, well selections and asset prioritization—all of which have a direct bearing on margin performance.

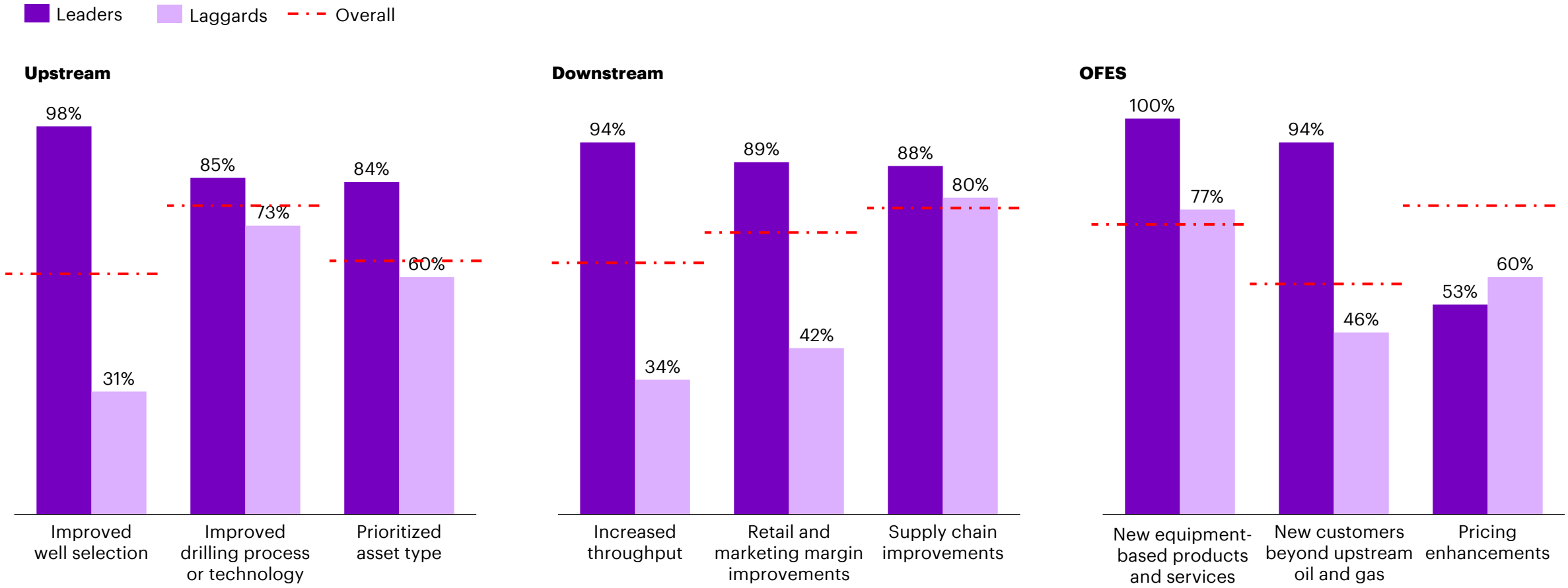
For downstream businesses, a better understanding of customer needs and supply chain issues can help them deliver more products—and more margin.

For OFES businesses, pricing enhancements are expected to have a limited effect on margin performance. More important are the delivery of new offerings to new customers.

Figure 11.

Leaders and laggards have different opinions about margin growth drivers

Percentage of respondents that consider essential/very important drivers of margins for:



Act like a leader with a holistic approach for a step change in competitiveness

Our research identified three actions energy companies can take to improve their competitiveness and resilience in the years ahead. These actions are reflected by leaders' ability to ramp up their hydrocarbon investments in short order. For example, 43% are planning to build their gas and LNG assets as part of a more balanced portfolio mix.

Here are the **three actions** energy companies can replicate to strengthen their competitiveness in the years ahead:

1. Focus on total enterprise reinvention. Leaders are maintaining a strong focus on continuous improvement. But they are also investing in programs that will result in a step change in performance for the core business and enable them to navigate market uncertainties and volatility. From initiatives aimed at radically lowering costs to those focused on creating a truly balanced portfolio, leaders are deploying new strategies and ways of working across the value chain. Importantly, they are further ensuring their resilience by compressing their transformations across several program areas simultaneously.

2. Place balanced bets. While hydrocarbon demand patterns are shifting, oil and gas are (and will remain) critical components of the energy system. Leaders are, therefore, balancing investments in hydrocarbons (especially natural gas and LNG), while continuing to grow a low-carbon and decarbonized portfolio.

3. Set reasonable expectations for performance and returns. As portfolios shift and market volatility continues, leaders are no longer expecting outsized returns. They are, instead, embracing the art of the possible—and strengthening their capabilities and financial discipline to capture value across their enterprise when markets are on the rise.

02

Carbon

This element of reinvention relates to an organization's efforts to achieve carbon neutrality by transforming or shifting its investments, operations and products.

Energy for good

Energy companies have increasingly embraced a sustainability agenda. Originally, their interest in shifting to low-carbon solutions was driven by customer and investor demand for greater environmental stewardship, as well as regulators' toughening stances on carbon emissions.

Over the years, however, leading companies have found that the benefits of energy sustainability extend beyond goodwill and investor interest. Our research has found that energy companies that enjoy lower cost of capital, better stock performance and less volatile share prices are those paying greater attention to ESG metrics. While it's too early to attribute causation, a correlation appears to be emerging between ESG performance and financial performance.[5]

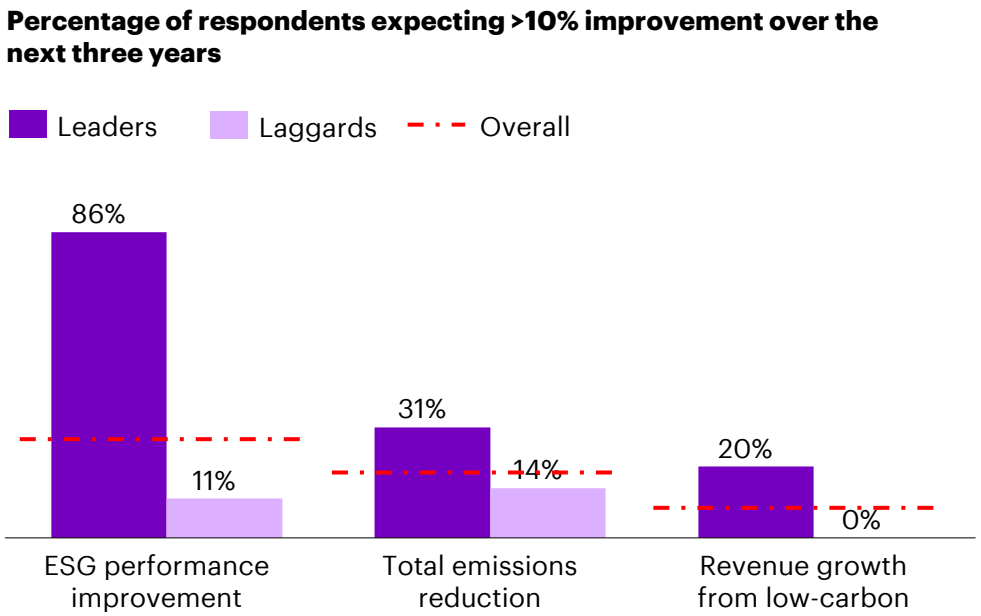
Reinvention leaders understand that the benefits of energy sustainability extend beyond goodwill and investor interest.

Energy for good... is good for business

Leaders in our study see the potential benefits of investing in low-carbon related initiatives (see Figure 13). Over the next three years, 86% of leaders expect to see their low-carbon investments generating a greater than 10% improvement in ESG performance. 20% expect their low-carbon initiatives to produce a greater than 10% boost in revenue. And 31% expect those initiatives to reduce emissions by at least 10%. They invested earlier in low-carbon solutions and are now reaping the results.

In contrast, only 11% of laggards are expecting a 10% improvement in ESG performance. Just 14% are anticipating their investments to reduce emissions by 10% or more. And none expect their low-carbon investments to drive revenue growth of at least 10%. They have lower expectations despite indications they are shifting their portfolio focus to non-hydrocarbon assets. We believe this may reflect their understanding that low-carbon initiatives will take more than three years to produce significant results. They are investing now for future value.

Figure 13.
Leaders have higher expectations of their carbon-related initiatives



These findings beg the question:

In which areas of the low-carbon economy are leaders and laggards placing their bets?

Industry growth will be driven by a balance of low-carbon energy plays

As the world's need for energy steadily grows, and as fossil fuels' share in the energy mix declines (from 80% today to 50% or so by 2050[6]), companies must be prepared to capture future growth in the sustainable, low-carbon energy space. Solutions related to carbon capture, utilization and storage (CCUS), hydrogen, alternative fuels, renewable power and energy storage will all be essential for the long-term vitality of energy companies—and the larger energy system of which they are a part. Many of these low-carbon businesses are expected to be multi-trillion-dollar markets by 2050.[7]

1%

There is tremendous opportunity for energy companies to make their move into low-carbon offerings. Consider this: The most prominent low-carbon technologies available today account for less than 1% of what will be needed to enable a net-zero energy system.[8]

The area which leaders and laggards believe holds the greatest potential is renewable power (see Figure 14). But leaders appear to understand that the future energy system will require a balanced portfolio of other low-carbon, energy-related solutions. Many more of them are expecting to generate more than 5% of their revenue from such solutions by 2030. The fact that leaders' revenue expectations are relatively uniform across most areas—from hydrogen and CCUS to biofuels and energy services—may suggest a more equitable approach to investing across all areas.

Laggards are anticipating a revenue boost in just a few areas. This is not unsurprising, since they are only now starting to ramp up their investments in non-hydrocarbon solutions.

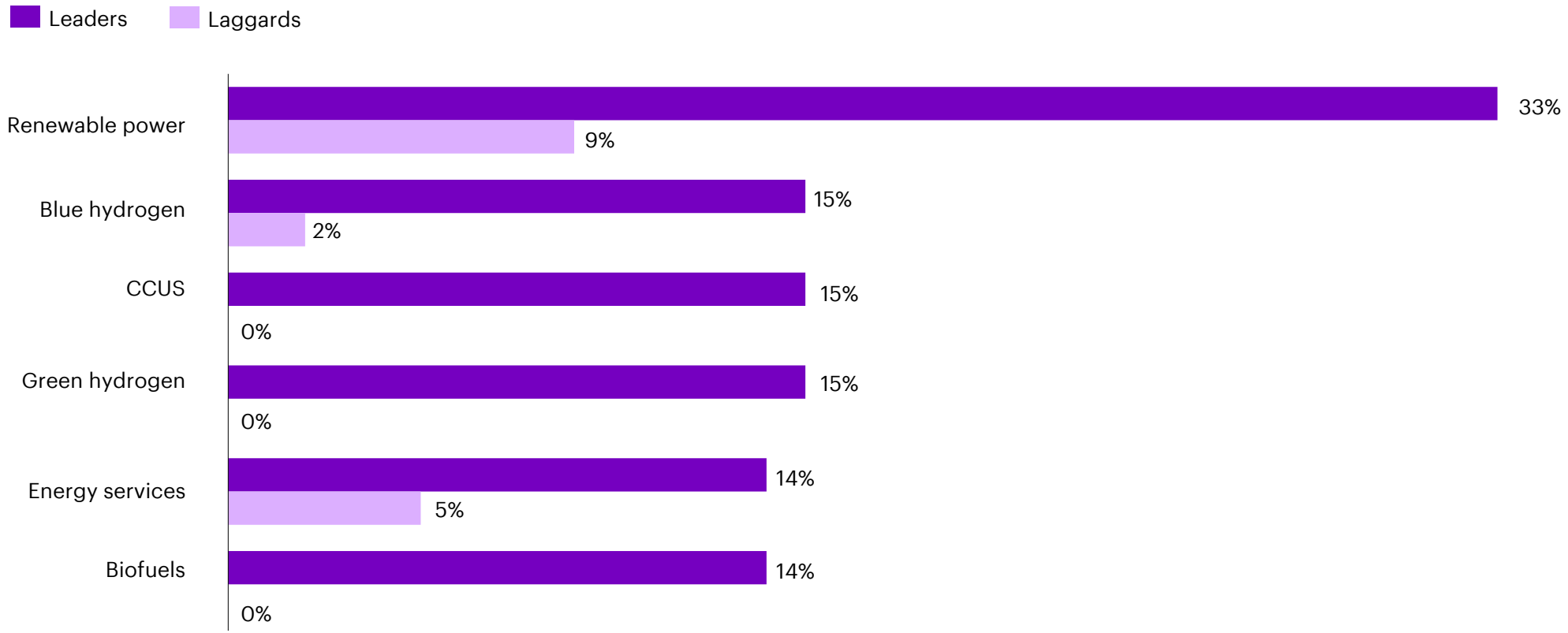
5%

Their expected returns may reflect their understanding that a 5% revenue boost from new investments may not be feasible by 2030. Alternatively, their relatively more modest expectations may reflect their propensity to invest in a limited number of what they consider to be higher-value or more viable low-carbon plays.

Figure 14.

Leaders' relatively uniform expectations for low-carbon revenue growth reflect a holistic, balanced investment strategy

Percentage of respondents expecting >5% of total revenues from each segment by 2030



A focus on emissions

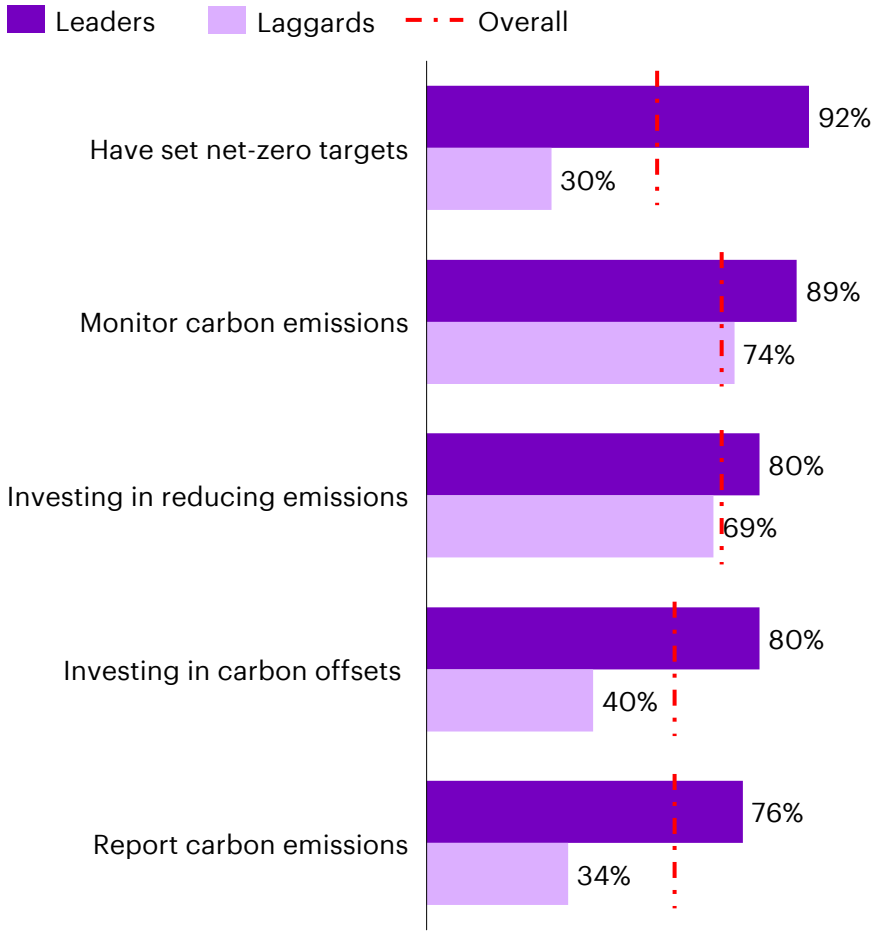
Another notable difference between leaders' and laggards' commitment to low-carbon initiatives can be seen in the areas of emissions monitoring, management and offsets (see Figure 15).

Most companies in both the leader and laggard groups are monitoring their carbon emissions and investing in reducing them. Yet laggards are much more likely to have not set net-zero targets. Nor do they report their carbon emissions or invest in carbon offsets. The vast majority of leaders (92%) have set net-zero targets—and 63% of leaders have aligned those targets to COP26 net-zero goals. In general, leaders are once again exhibiting a much more balanced approach to emissions-related actions than their peers.

Yet, there is still much the industry can do. This is evident in companies' actions on methane, which accounts for 57% of emissions in the industry and is 21 times more potent in the first 20 years than CO_2. Less than 1 out of 6 of all survey participants have set methane targets in line with the Global Methane Pledge, which calls for a 30% reduction by 2030.

Figure 15.
Leaders exhibit a more balanced approach to emissions-related actions than their peers

Percentage of respondents that agree/strongly agree they undertake the following actions



Act like a leader by using carbon as a strategic differentiator

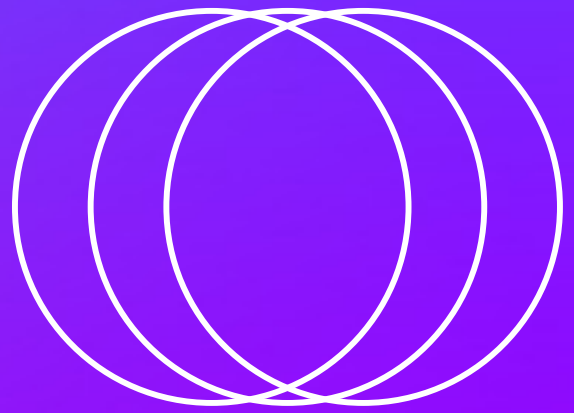
Our research identified three pragmatic steps energy companies can take to achieve their sustainability goals. These actions are illustrated by this year's leaders, who are investing more in their low-carbon businesses—and doing so in a more balanced way. Their more pragmatic and holistic steps to a low-carbon future are based on three principles:

1. Anticipate, don't react. As regulations become more stringent and as investor and customer demands for sustainable energy grow, energy companies need to stay ahead of the curve. They can do so by setting ambitions targets, monitoring and reporting on their emissions, and taking a balanced, holistic approach to investing in clean energy and decarbonization technologies.

2. Match investments to ambitions. Achieving net-zero targets by 2050 will require significant investments from the industry, starting today. This, however, will require companies to lead in the development and deployment of decarbonization technologies like CCUS, biofuels and green hydrogen. Leaders are investing more than laggards. But even they will need to dramatically increase their commitments.

3. Integrate solutions to accelerate results. Our research shows that leaders understand that no single low-carbon solution or decarbonization technology will result in a cleaner energy mix. They have adopted a more balanced approach and are focused on bringing multiple solutions together to amplify and accelerate their impact.

03



Connectivity

This element of reinvention focuses on an organization's use of digital technologies to enable collaboration, data transparency, cybersecurity—and, ultimately, enterprise-wide resilience.

Digital maturity—and lack thereof

Digital technologies make the necessary connections for total enterprise reinvention possible. Cloud, mobility solutions and industrial technologies such as augmented reality and Internet of Things (IoT) will all be increasingly important to connect and optimize operations over the next three years.

Generally speaking, leaders are more mature in their recognition of digital's power—and are taking actions to close their digital capability gaps (see Figure 16). Importantly, they are moving beyond point solutions and embracing an integrated approach in which all digital and emerging technologies are seen as very important or essential.

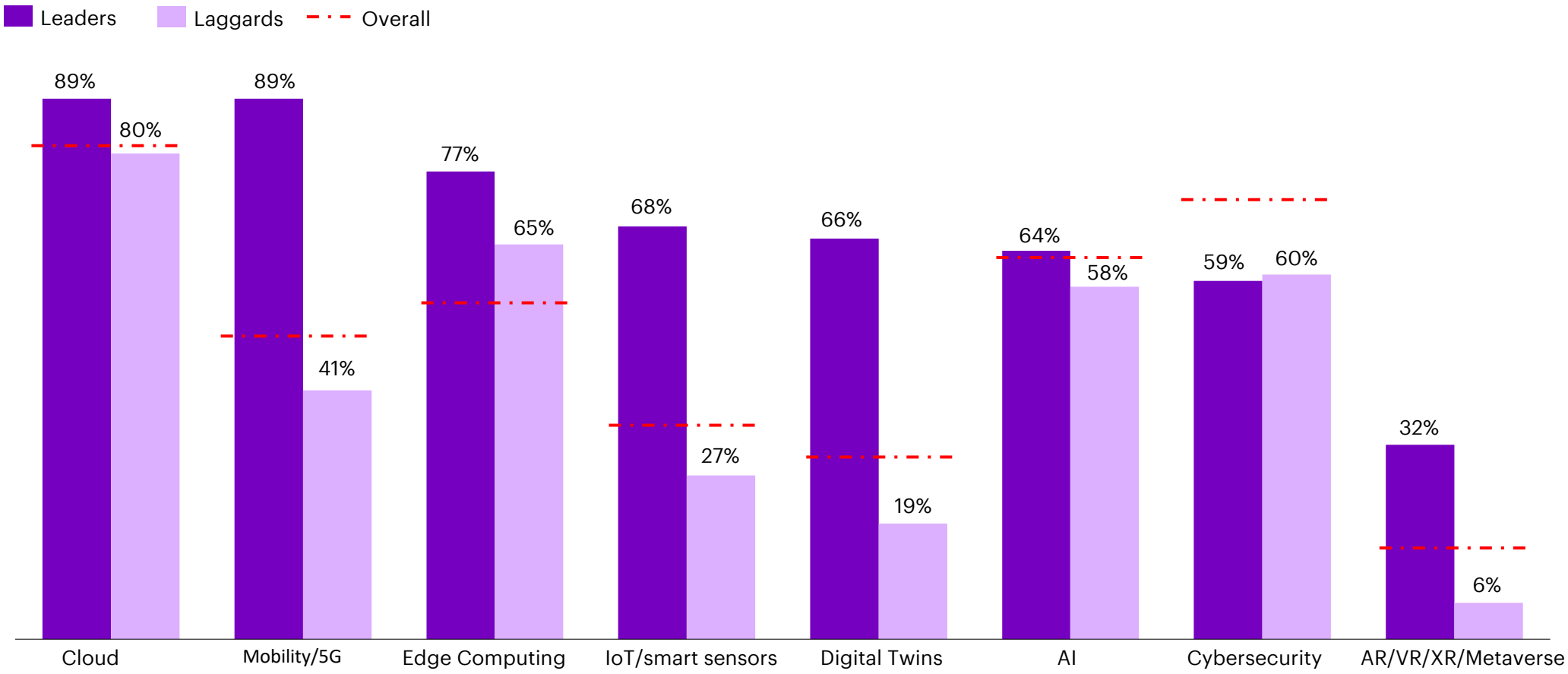
Laggards, on the other hand, are prioritizing just a few technologies, such as cloud, edge computing and artificial intelligence (AI). They are less likely to see or understand the importance of 5G, smart sensors or digital twins—precisely the technologies that are expected to power the remote, connected operations of the future.

Unfortunately, both groups are failing to prioritize the use of augmented reality and the metaverse. We believe this represents a significant blind spot, since these technologies will be critical to enabling simulations of complex projects, safety and sustainability improvements, and even future customer interactions.

Figure 16.

Leaders exhibit a greater appreciation of the value of digital technologies

Percentage of respondents that consider the technology "very important" or "essential"

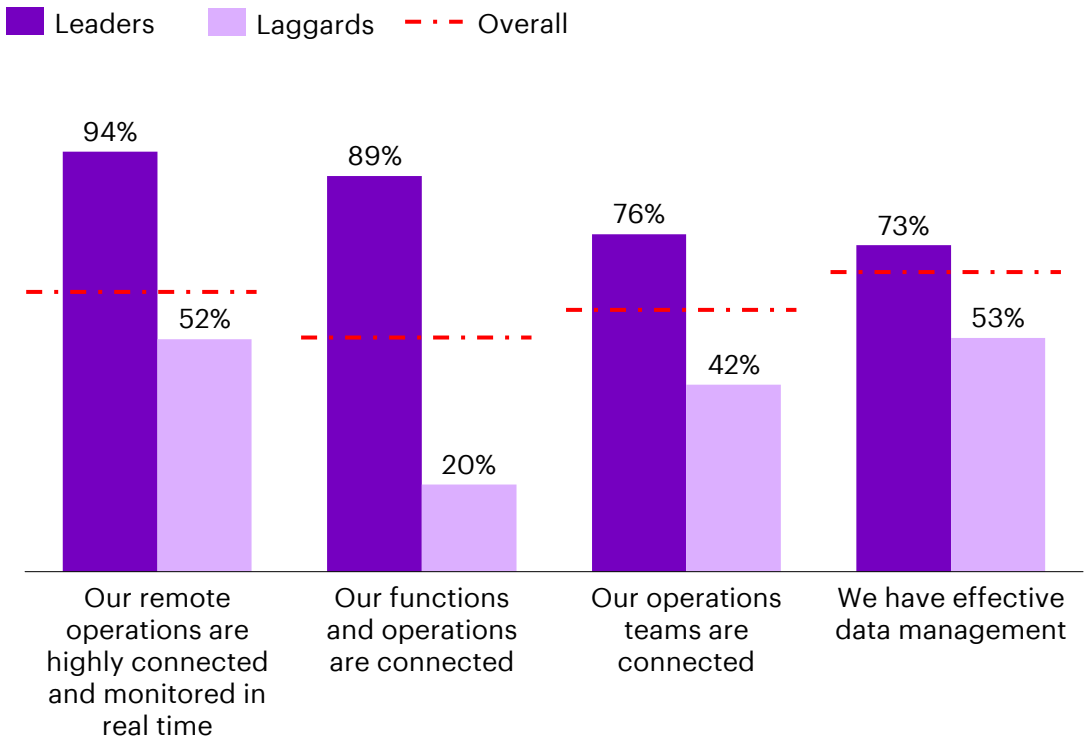


A missed connection

Leaders are significantly more confident in their connectivity and data management capabilities than laggards (see Figure 17). They are also more confident than they were in 2021. For example, only 15% of last year's leaders believed their remote operations were highly connected. Only 19% felt their functions and operations were connected. And just 23% believed they effectively managed data. This year's confidence, however, belies significant potential shortcomings in leaders' abilities.

Figure 17.
Leaders are significantly more confident in their abilities to connect the organization

Percentage of respondents that "agree" with the statement

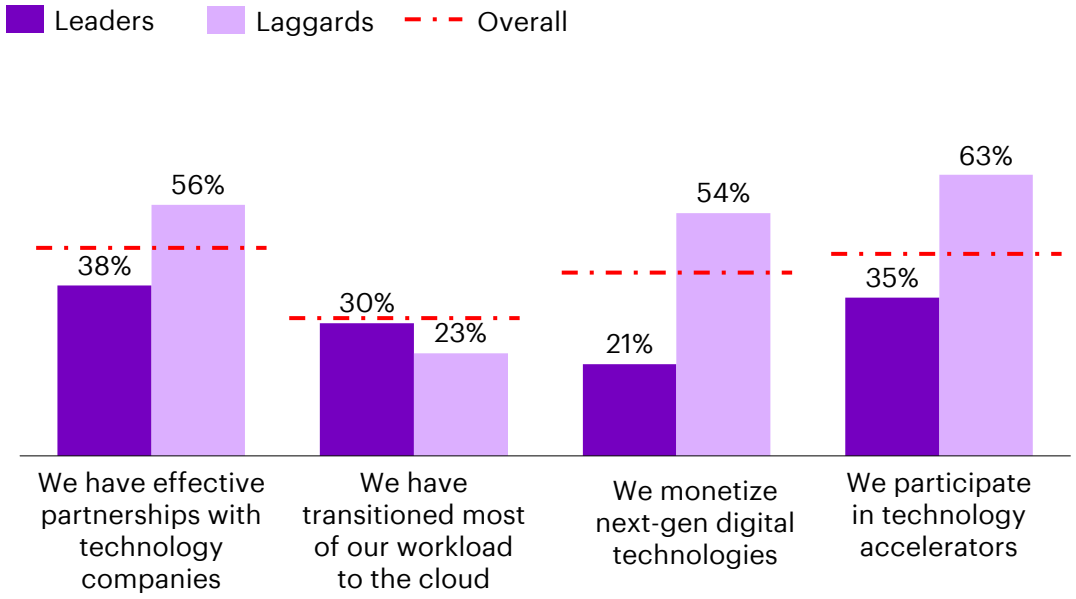


A notable percentage of leaders have capability gaps that will potentially hinder their abilities to effectively integrate their digital solutions, accelerate innovation, or capture optimal value from connected operations (see Figure 18). For example, 30% of leaders (versus just 23% of laggards) still have not transitioned most of their workloads to the cloud. Even more leaders (35% and 38%, respectively) are not yet making use of technology accelerators or partnerships.

In these measures, leaders are performing much better than laggards. But the fact that roughly one-third of reinvention leaders have not taken basic steps to optimize their cloud environment, ecosystems and commercialization opportunities indicates there is much work yet to be done.

Figure 18.
Opportunities abound for energy companies to build their digital prowess

Percentage of respondents that do not "agree" with the statement

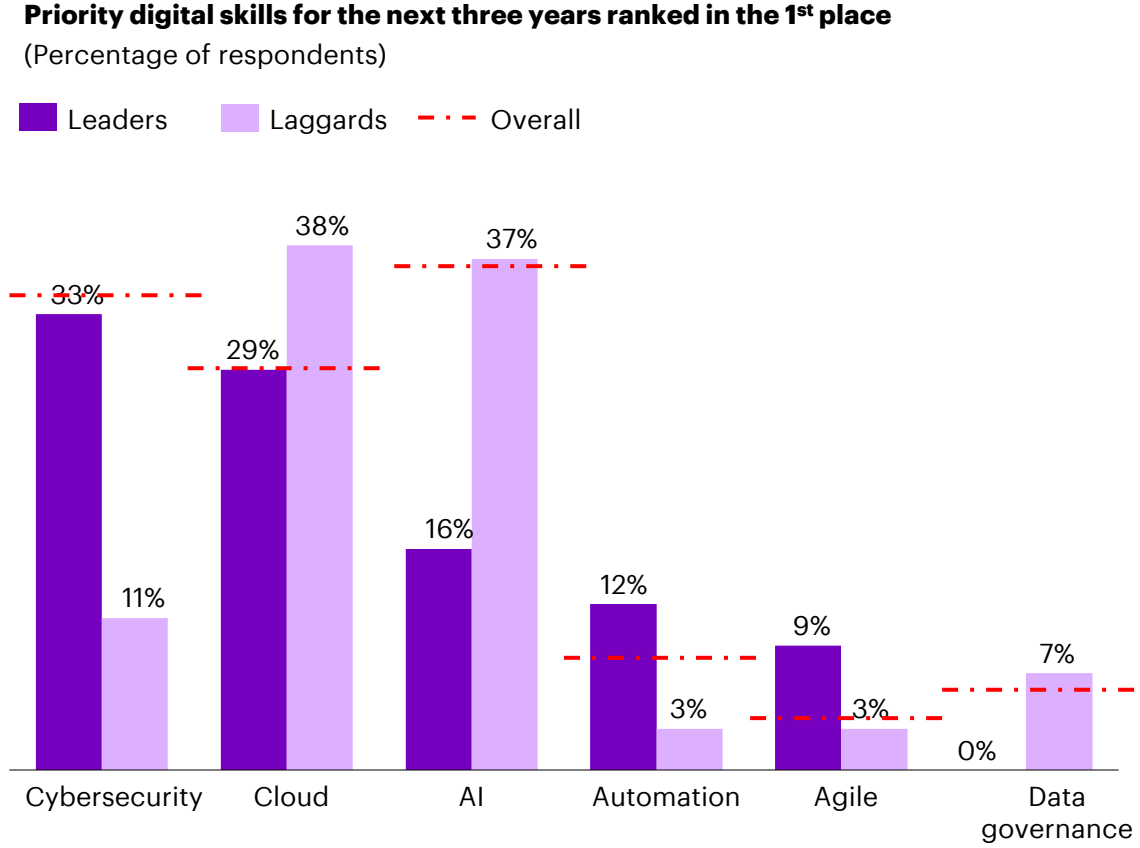


Closing the digital gaps

The good news is that some of the gaps previously described may be closed in the next few years. Cloud and AI are two of the highest-priority digital skills upon which both leaders and laggards are planning to focus (see Figure 19). Laggards are demonstrating a greater eagerness to build their capabilities—possibly because they are starting from a sub-optimal position. They need to prioritize these areas to catch up with leaders.

It is noteworthy that while only 73% of leaders believe they have an effective data management capability, none of the leaders in our survey consider data governance a priority. 7% of laggards do.

Figure 19.
Digital skill priorities for leaders and laggards differ significantly



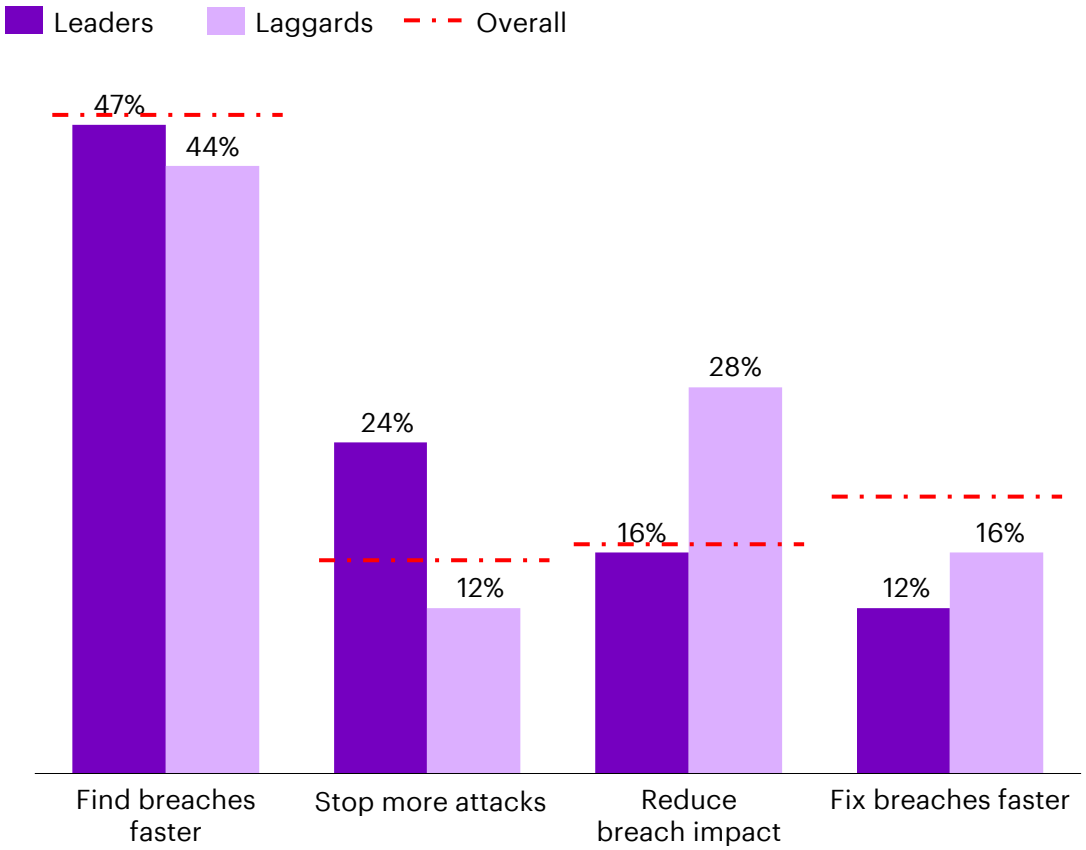
The issue of cybersecurity

Cybersecurity is the highest-priority digital area for leaders in the next three years, and the third-highest priority area for laggards. The increased focus on cybersecurity is possibly due to the high-profile cyberattacks in recent years, as well as the current geopolitical environment and its elevated risk of targeted attacks.

For leaders, this year's areas of focus include detecting breaches faster and stopping attacks outright (see Figure 20). Laggards are placing a higher emphasis on reducing the impact on the business when and if an attack occurs.

Figure 20.
When it comes to the issue of cybersecurity, energy companies are focused on detecting breaches faster

Focus to improve cybersecurity capabilities in the next year ranked in 1st place
(Percentage of respondents)



The value of digitally enabled connectivity

Despite the gaps in their capabilities, leaders are considerably more optimistic that their digital transformation will drive a 10% (or greater) improvement in carbon emissions, customer satisfaction and employee engagement (see Figure 21). In these areas, laggards are less confident, expecting just a 5-10% improvement in each. Both leaders and laggards expect their connectivity-related initiatives to have just a modest impact on margins and revenue.

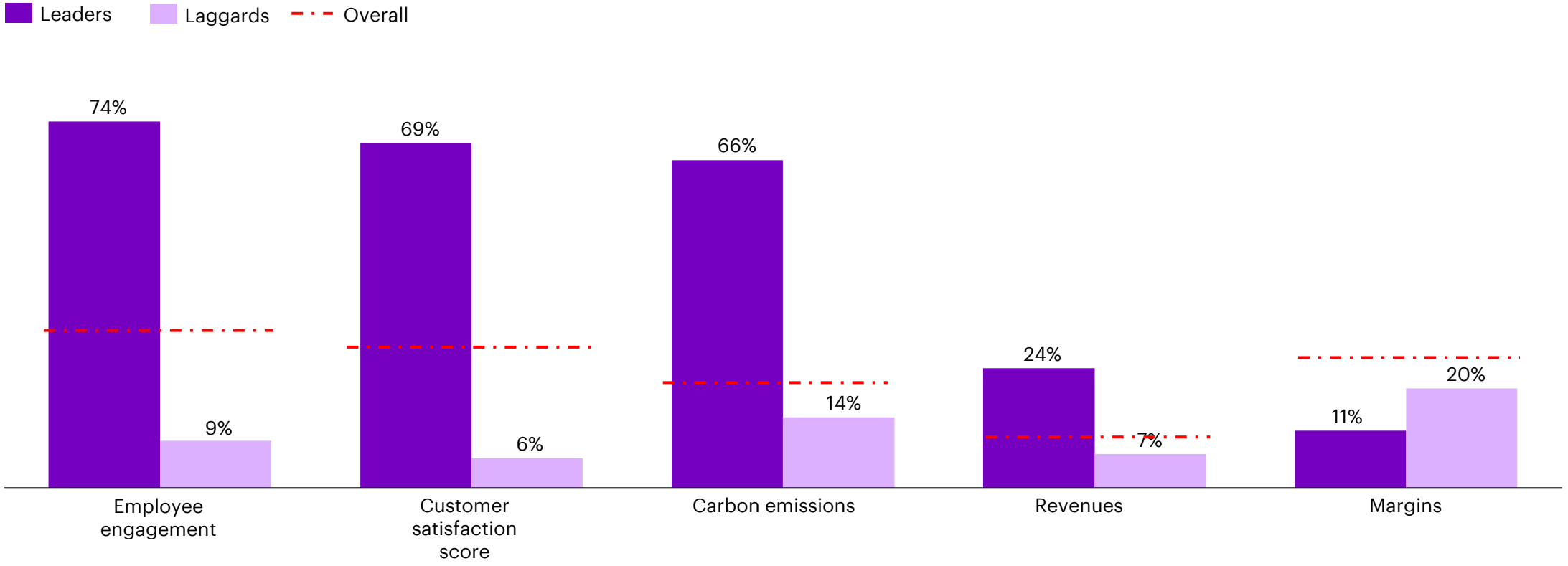
100%

Such expectations stand in stark contrast to last year's, when nearly 100% of leaders were confident that their digital transformations would yield 20% or higher improvements in employee engagement and customer satisfaction and at least a 10% jump in revenues (half of the leaders believed their connectivity-related initiatives would translate into a 40% jump in revenues). This year, leaders' expectations have declined significantly.

Figure 21.

Leaders exhibit a greater appreciation of the value of digital technologies

Percentage of respondents indicating impact >10% from connectivity-related initiatives in the next three years



Act like a leader by investing wisely and holistically in the digital technologies that will drive connectivity.

Through our Reinvention Index analysis, we have identified three actions energy companies can take to become more digital, more connected and more secure. Leaders have shown these actions work. Over the past year, they have made great progress closing their connectivity-related capability gaps. Teams, operations and functions are all now much more connected.

23% to 73%

And the percentage of those expressing confidence in their data management capabilities has climbed from 23% to 73%.

We believe the following actions will set future leaders apart.

Embrace an end-to-end mindset. Effectively connecting and optimizing operations requires bringing various technologies together. Point solutions or a singular focus on, say, cloud will fail to generate the potential value of digital investments. Leaders are likely to leverage technologies across the digital landscape—from 5G to edge computing to AI—all while strengthening their data management and cybersecurity infrastructures.

Don't ignore frontier technologies. Virtual, augmented and extended reality, as well as the metaverse will drive the future evolution of connected operations. Energy companies that invest in these frontier technologies today will be well placed to take the lead in designing and developing infrastructures, optimizing workflows, and piloting new services or formats with customers or ecosystem partners.

Focus on more than technology. Digital technologies are a critical element of connectivity. But so is talent. Leaders will prioritize investments in the right technologies—and in the skillsets needed to unlock those technologies' full potential.

04 Customer

This element of reinvention gauges an organization's ability to deliver personalized, exceptional experiences to business and individual customers through its products, services and branding.

New customer choices. New customer experiences.

One significant consequence of the energy transition will be the availability of new choices for energy customers. Our homogenous energy system, based on oil and gas, is becoming much more heterogeneous. So is the concept of customer experience. As energy companies continue their reinvention journeys, they must rethink customer-centricity and engagement strategies. Above all, they must enable business and individual consumers to procure and consume different sources of energy in ways that meet their unique needs.

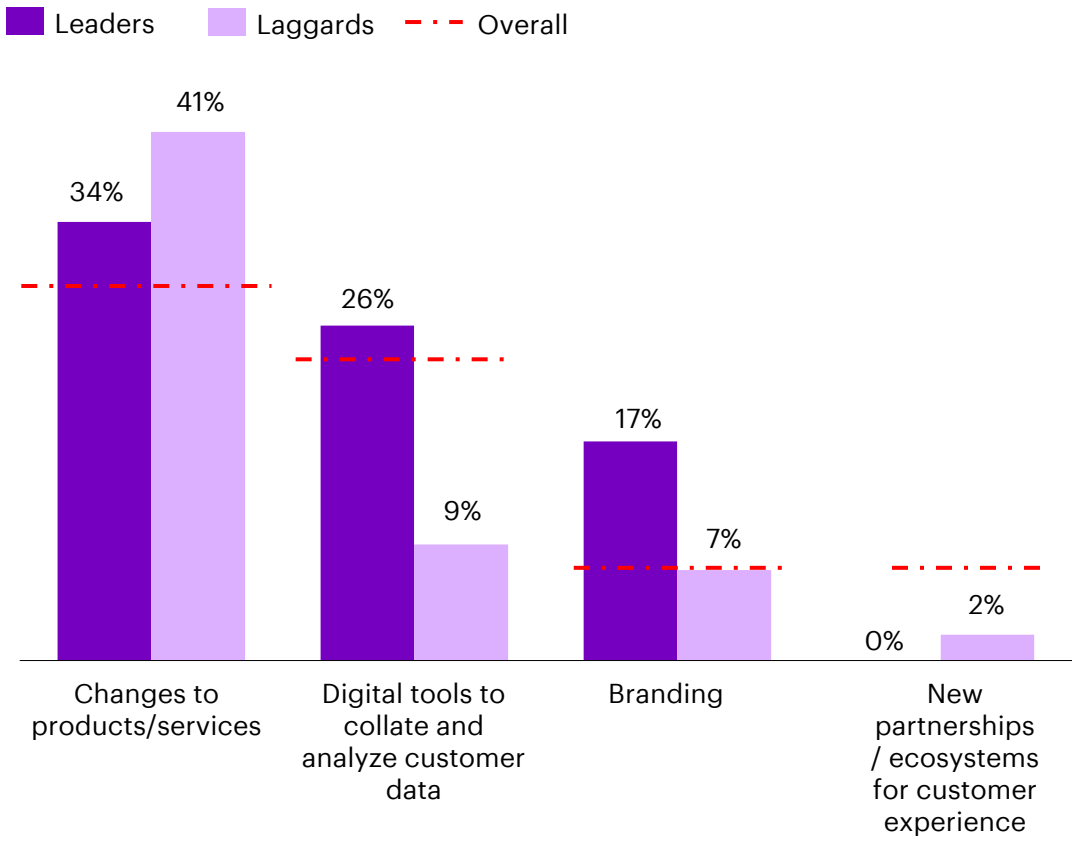
Both leaders and laggards in our recent research recognize that their current mix of products and services need to evolve—either to offer additional customer value or to address sustainability and environmental concerns. This is a positive sign. While customer-centricity is not yet a top priority for energy companies, its importance will certainly grow as alternative fuels and new energy services become more viable. More than half of the leaders expect to increase their investments in customer experience, while an additional third are planning to significantly increase their investments over the next three years.

Customer experience: More than products and services

Where might these investments be focused? In addition to new products and services, energy companies are focusing on the use of digital tools and branding to improve customer experiences (see Figure 22). We believe the importance of branding initiatives will grow by the end of this decade. That's because customers are increasingly interested in doing business with companies whose values align with their own. Energy companies will have the opportunity—if not the obligation—to define and promote their purpose via their brand positioning.

Figure 22.
There are various ways to improve the customer experience

Priority actions and investments to improve customer experience in the next 12 months
(Percentage of respondents)



One of the more interesting findings of the research has to do with companies' use of partnerships to build customer experiences. No leaders, and just a few laggards, are prioritizing the development of ecosystems. This represents a blind spot for the industry.

We believe the importance of ecosystem partnerships will grow as customers expand their demand beyond fuel to new areas such as power, energy efficiency services or carbon offsets. This will mark new and uncharted territory for energy companies. Those that take action to build their ecosystems sooner rather than later will be best positioned to respond to such demand changes when they arise.

Building on a strong foundation

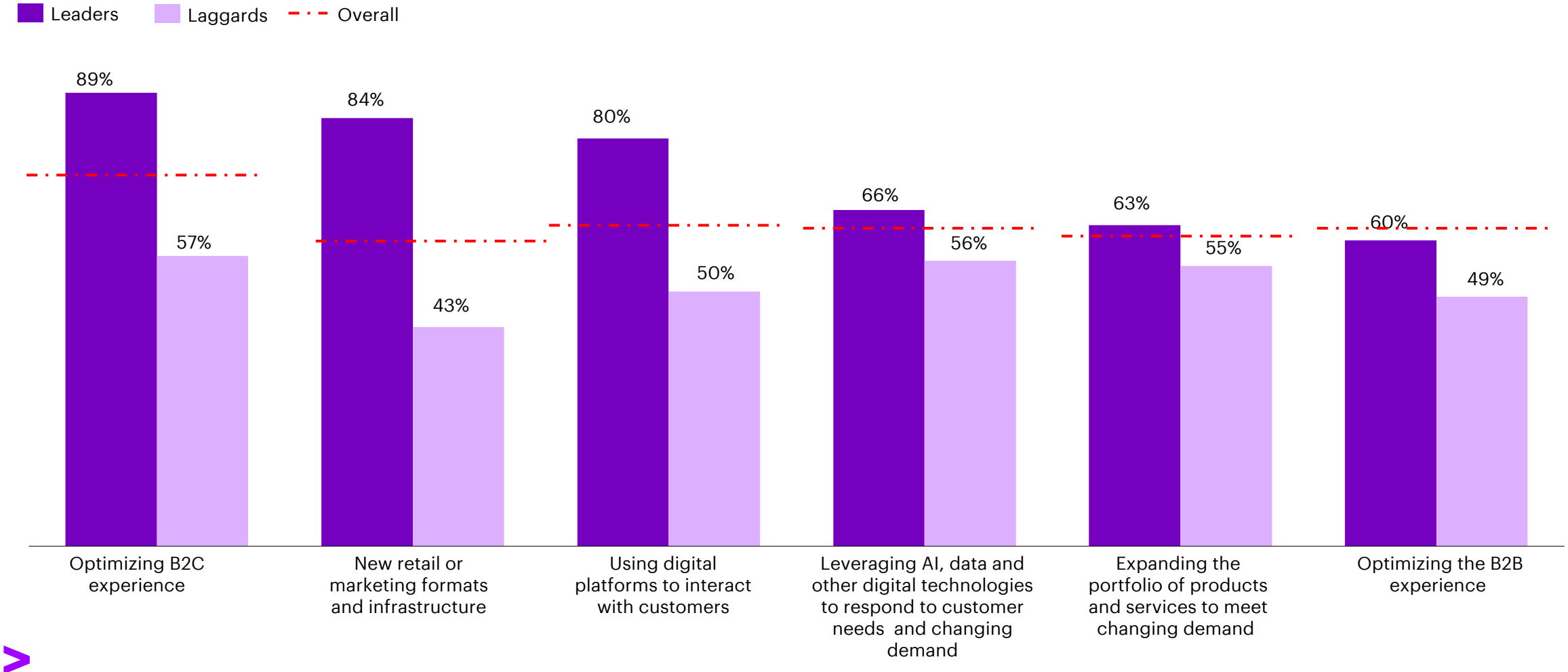
One of the reasons that energy companies are not yet prioritizing customer experience and engagement as much as competitiveness or carbon may have to do with the belief that they already have strong customer capabilities. Leaders are particularly confident in their abilities to optimize business-to-consumer (B2C) experiences, develop the right retail or marketing programs and use digital platforms to strengthen customer engagement (see Figure 23).

They are less confident, however, in their ability to optimize the business-to-business (B2B) customer experience. This represents a tremendous opportunity for energy companies. B2B customers, like their B2C counterparts, will evolve their preferences and expectations as new energy products and services become available. They, too, will be looking for personalized solutions and better methods of interaction. Some of these customers will also likely become partners to energy companies in the delivery of decarbonization or alternative energy solutions. Their value, therefore, extends beyond the point of sale. Optimizing B2B experiences today will optimize the relationships that will be needed tomorrow.

Figure 23.

Leaders are more likely to believe they engage effectively with customers

Percentage of respondents that agree/strongly agree they are effective at interacting with customers through



The digital customer journey

In Accenture's 2021 Oil and Gas Reinvention Index, leaders identified re-engaging customers as the top digital capability upon which they would focus in the coming year. Their actions paid off. In this year's survey, 80% of leaders consider themselves to be very effective when it comes to digital re-engagement (see Figure 24). They clearly believe they can do even better; digital re-engagement remains the top customer experience priority for the next 12 months. We believe this prioritization reflects leaders' holistic approach to total enterprise reinvention. They understand that long-term growth, resilience and relevance will require stronger customer relationships. Only 16% of laggards feel the same.

80%

of leaders consider themselves to be very effective when it comes to digital re-engagement

Laggards, in general, have much less confidence in their abilities to deliver digital customer experiences across the customer journey.

Most notably, none of them believe they are very effective when it comes to digital customer discovery. Last year, digital discovery was the laggards' highest priority (cited by 51% of them); this year, only 9% of laggards consider digital discovery their top priority (see Figure 25). This de-prioritization among laggards may have deleterious consequences. If companies are unable to identify, evaluate and attract new customers, their capabilities in onboarding, payment processing, customer support and reengagement will be largely wasted.

Figure 24.
Leaders believe they are more effective at engaging customers

Percentage of respondents that consider they have very effective digital customer experience capabilities

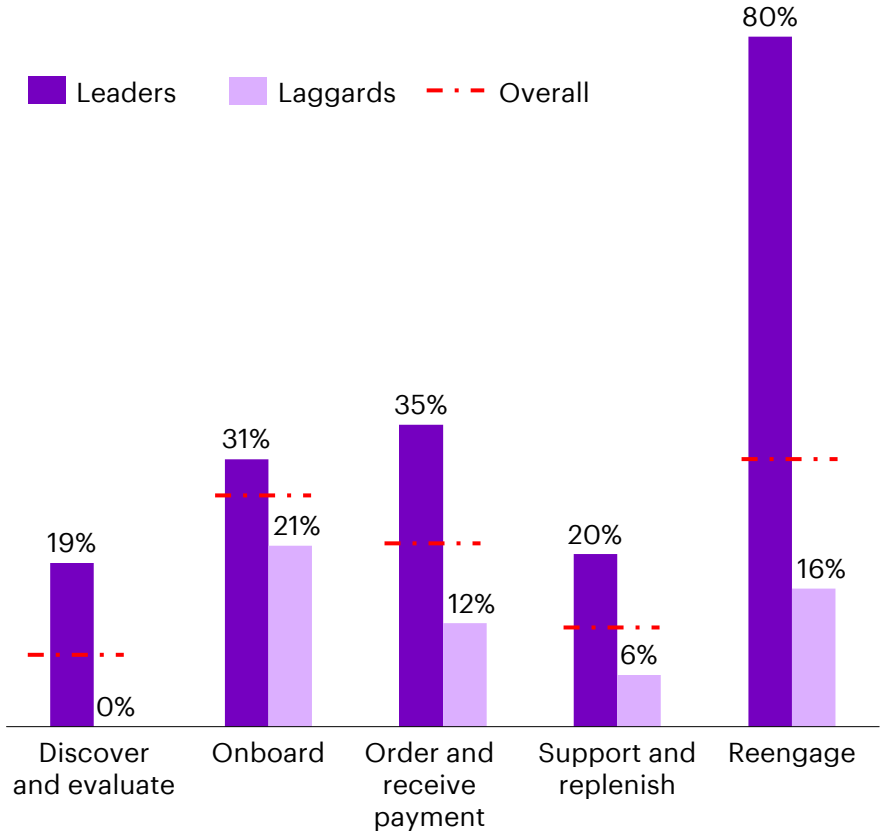
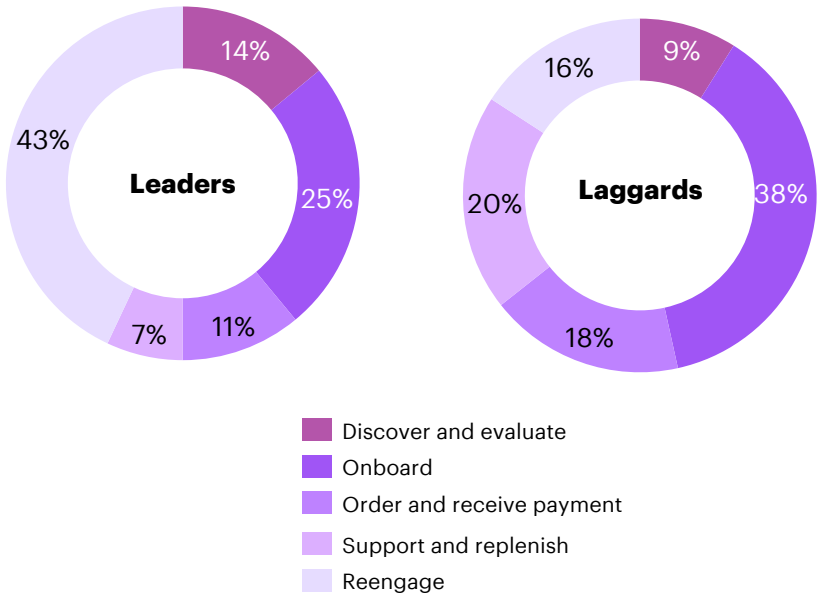


Figure 25.
Leaders and laggards have different customer experience priorities

Percentage of respondents that identify area as top priority for customer experience

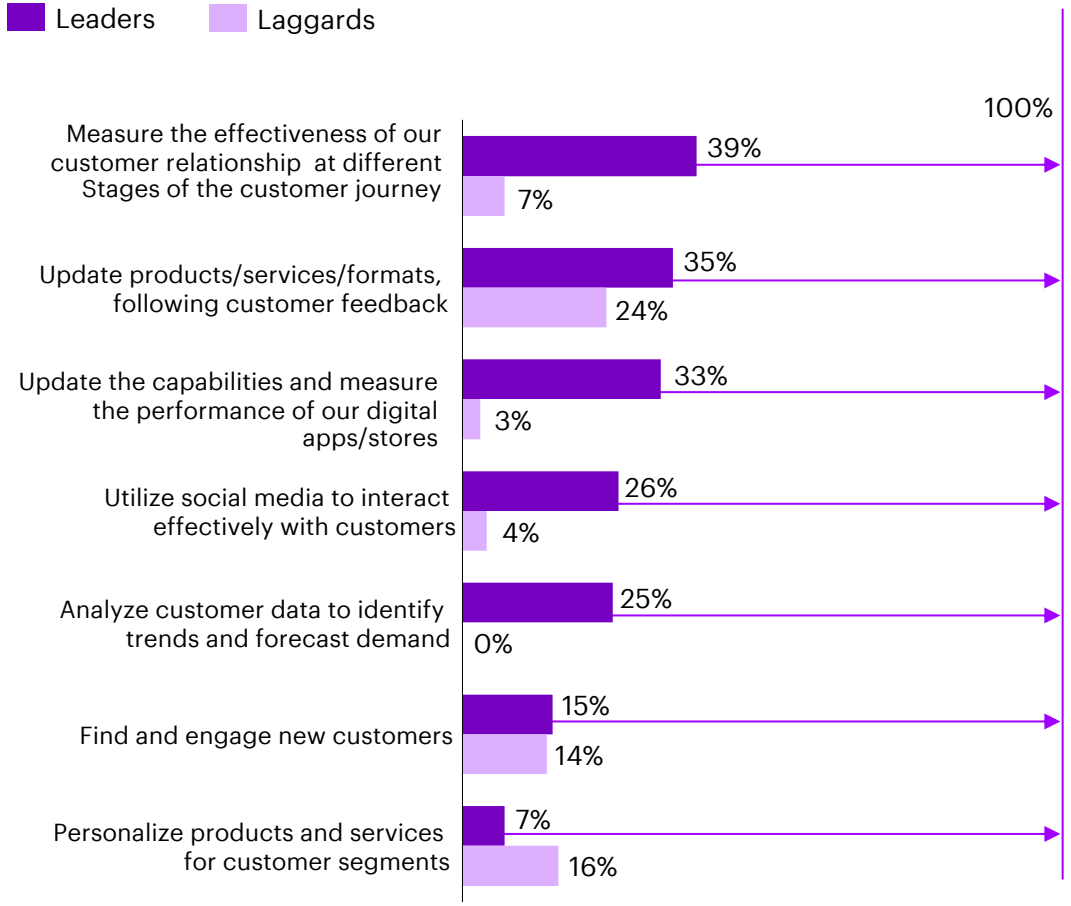


Room for improvement

Despite leaders' confidence in building effective customer experiences, marketing programs, retail infrastructures, digital platforms and even customer-centric AI solutions, there are many areas in which leaders (and laggards) fall behind (see Figure 26). In fact, more than 60% of leaders and 85% of laggards reported they infrequently measure their customer relationships and digital interactions, use customer feedback to update their offerings, or personalize their products and services.

Figure 26.
There are plenty of opportunities for energy companies to improve customer experiences

Percentage of respondents that strongly agree on their capabilities to frequently



This is a stark contrast to our 2021 findings. Last year, 76% of leaders were customizing products, services or formats based on customer feedback. 69% of leaders were interacting with customers via social media. And 60% were investing in digital technologies to understand, segment and measure their customer relationships.

Perhaps most surprisingly, only 25% of leaders frequently analyze their customer data to understand trends or forecast demand. None of the laggards do this. This is troubling because demand trends are starting to evolve rapidly across regions and industries. Relying on historical demand data is much less useful when new product mixes and energy services are being rolled out.

The first step to improving customer experience is understanding customer demand, customer preferences and customer behaviors. Without this understanding, energy companies will be hard pressed to reinvent their customer experiences.

More attainable goals

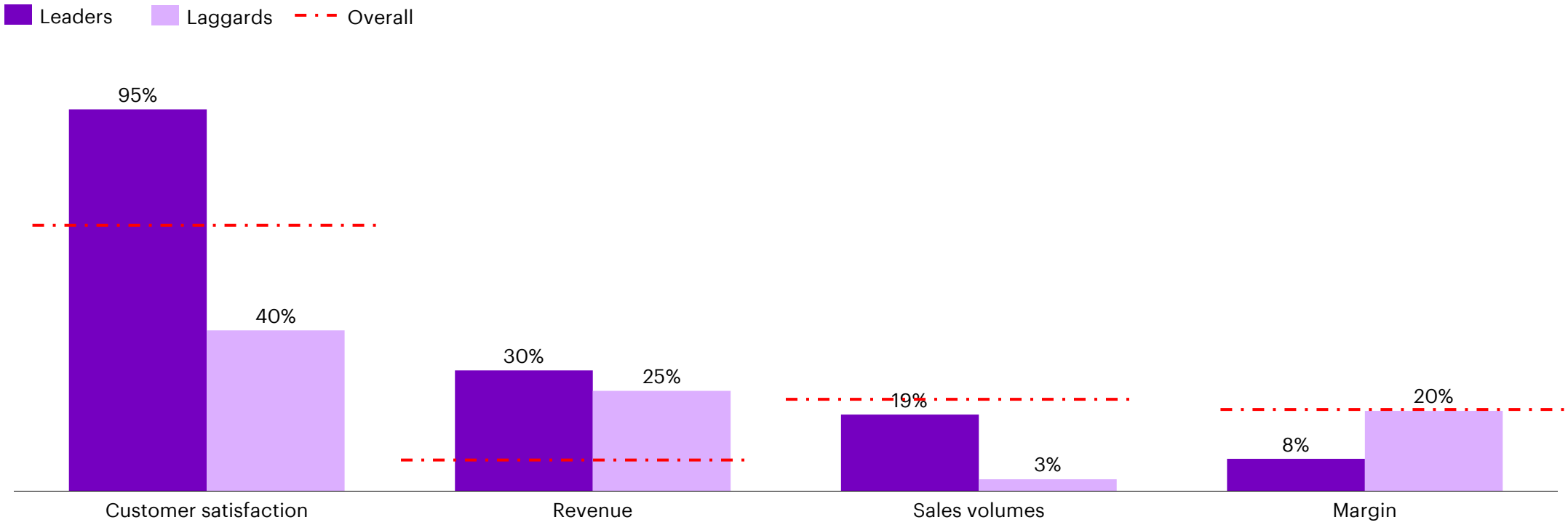
Almost all leaders expect to see a significant improvement in customer satisfaction over the next three years (see Figure 27). But, perhaps in recognition of their gaps in customer-related capabilities, leaders and laggards have both significantly lowered their expectations for customer initiatives to produce large margin or revenue uplift.

Last year, 81% of leaders and 38% of laggards believed revenue would grow by more than 10% over the ensuing three years. Now, only 30% of leaders and 25% of laggards are as optimistic. Leaders and laggards have also tempered their margin expectations. Only 8% of leaders believe they will see a margin improvement of 10% of more. More laggards (20%) are anticipating healthy margins, possibly due to today's high-price environment. But their lack of focus on customer identification, digital tools and data analysis will likely impact their ability to achieve their margin goals.

Figure 27.

Leaders believe their current customer initiatives will yield significant improvements in customer satisfaction

Percentage of respondents expecting >10% improvement over the next three years in



Act like a leader by prioritizing the customer

Our research revealed three actions energy companies can take to strengthen customer relationships and, by extension, customer loyalty. Leaders are demonstrating these actions. They understand, for example, that in a heterogenous energy system, customers won't be solely reliant on oil and gas. Nor will they be satisfied with historical approaches to customer engagement and personalization.

40%

That's why more than 40% of leaders are investing in new and innovative reengagement strategies. They know that the energy system of the future calls for entirely new experiences.

Here are the actions that can help companies deliver the experiences that customers will demand and deserve:

Commit to customer-centricity. Energy demand is rapidly evolving among business and individual customers, alike. Energy companies must be able to anticipate those changes. They need to engage with new customers in new ways and re-engage existing customers with new offerings and modes of interaction.

Use digital to its full advantage. Digital tools and platforms will be key to engaging with customers in the new energy system. Additionally, digital expertise is necessary to bring together the data and analytics that can lead to better decisions about products and services, retail formats and demand drivers as the landscape changes.

Focus on customer satisfaction. Leaders in this year's survey are focused on customer satisfaction—and are expecting their efforts to boost satisfaction by at least 10%. Other companies should follow their lead. As commodity prices remain high, customers will be more likely to explore alternative products and service options. In a fast-changing environment, energy companies need to provide more value, more choices, and tailored products and services. By satisfying customers today, energy companies have the opportunity to build loyalty that will withstand future changes in demand and market downturns.

05

Culture

This element of reinvention is focused on defining and amplifying an organization's purpose and delivering employee experiences that unleash innovation.

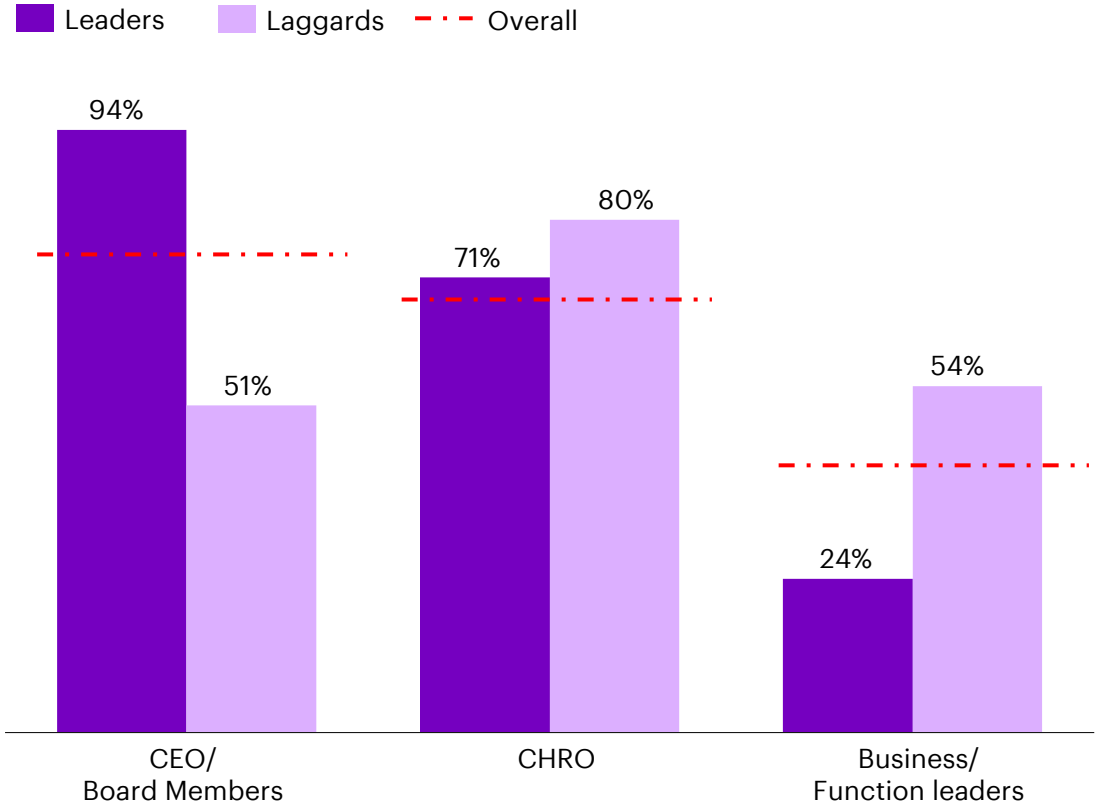
Culture change starts at the top

As the energy system evolves, so must the culture of the industry. Culture is, in fact, a key component of any company's total enterprise reinvention. To compete effectively in the energy future, organizations need to align to a reformulated purpose, embrace collaboration and new ways of working, and rally behind the reinvention imperative.

Our research revealed a clear distinction between leaders and laggards in terms of who within the organization is responsible for driving the necessary culture shift (see Figure 28). Laggards are more likely to see ownership of culture falling to the head of human resources or business/functional leaders. On the other hand, leaders in our survey are much more likely to place the onus of cultural improvement responsibilities on their CEOs. We believe this is the right choice.

Figure 28.
The vast majority of leaders believe that responsibility for Culture lies with the organization's top leadership

Percentage of respondents that agree that ownership of culture lies primarily with



Like other industries, energy is struggling to retain talent during the “Great Resignation.” Additionally, recent Accenture research[9] has found that nearly two-thirds of energy employees do not believe their companies care for them.

Further, more than 40% do not feel they can bring their authentic selves to the workplace. Reinvention will require CEOs to address such issues. Role-modeling culture, purpose and commitment to employees must now be a top CEO imperative in the industry.

2/3

Accenture research has found that nearly two-thirds of energy employees do not believe their companies care for them

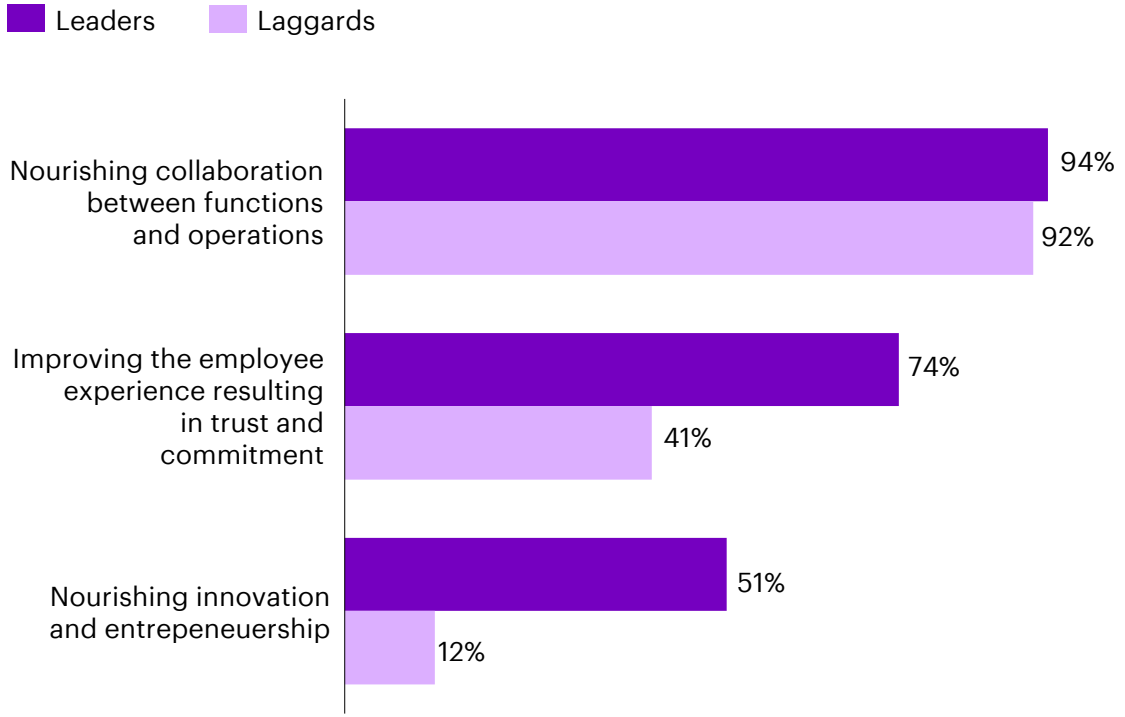
Cultural priorities

Another distinction between leaders and laggards emerged when respondents to our survey were asked about their ability to effectively align culture to their business's needs. Both leaders and laggards claim to have an environment that nourishes collaboration. But leaders go farther: They are more inclined to focus on improving the employee experience and enabling innovation within their ranks (see Figure 29).

It is noteworthy that laggards do not prioritize innovation and entrepreneurship despite having ambitions to develop new products and services.

Figure 29.
Leaders have a more balanced approach to aligning culture with business needs

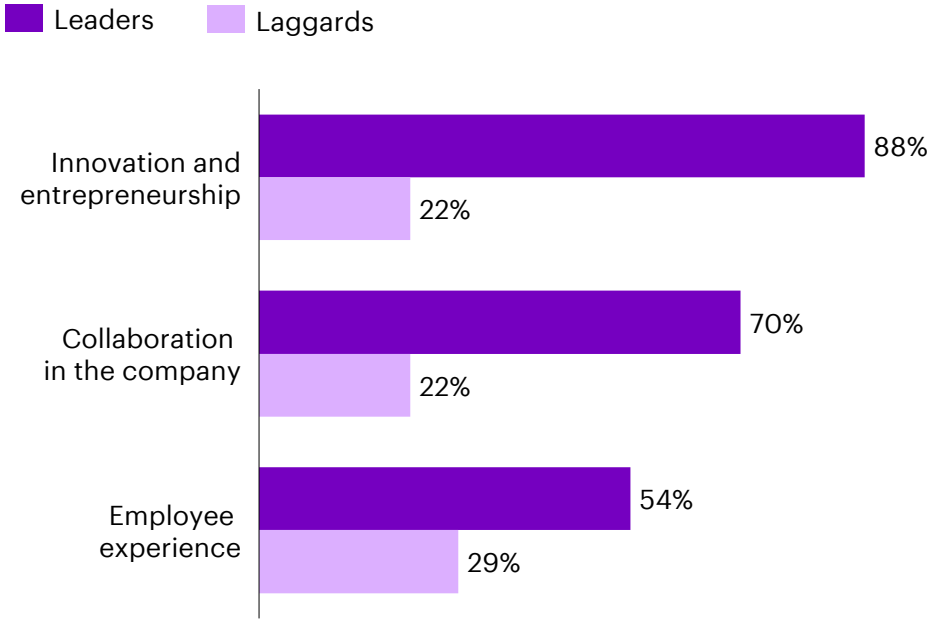
Percentage of respondents that agree/strongly agree they have capabilities to align culture to business needs



Leaders' greater confidence in their abilities to align the culture with business needs is likely well-founded. That is because they frequently monitor their culture-based performance to a much higher degree than laggards (see Figure 30). Leaders are not only building cultural capabilities, but also measuring their progress.

Figure 30.
Leaders strive to develop their culture capabilities—and measure their progress and results

Percentage of respondents that frequently monitor



Tackling the skills gap

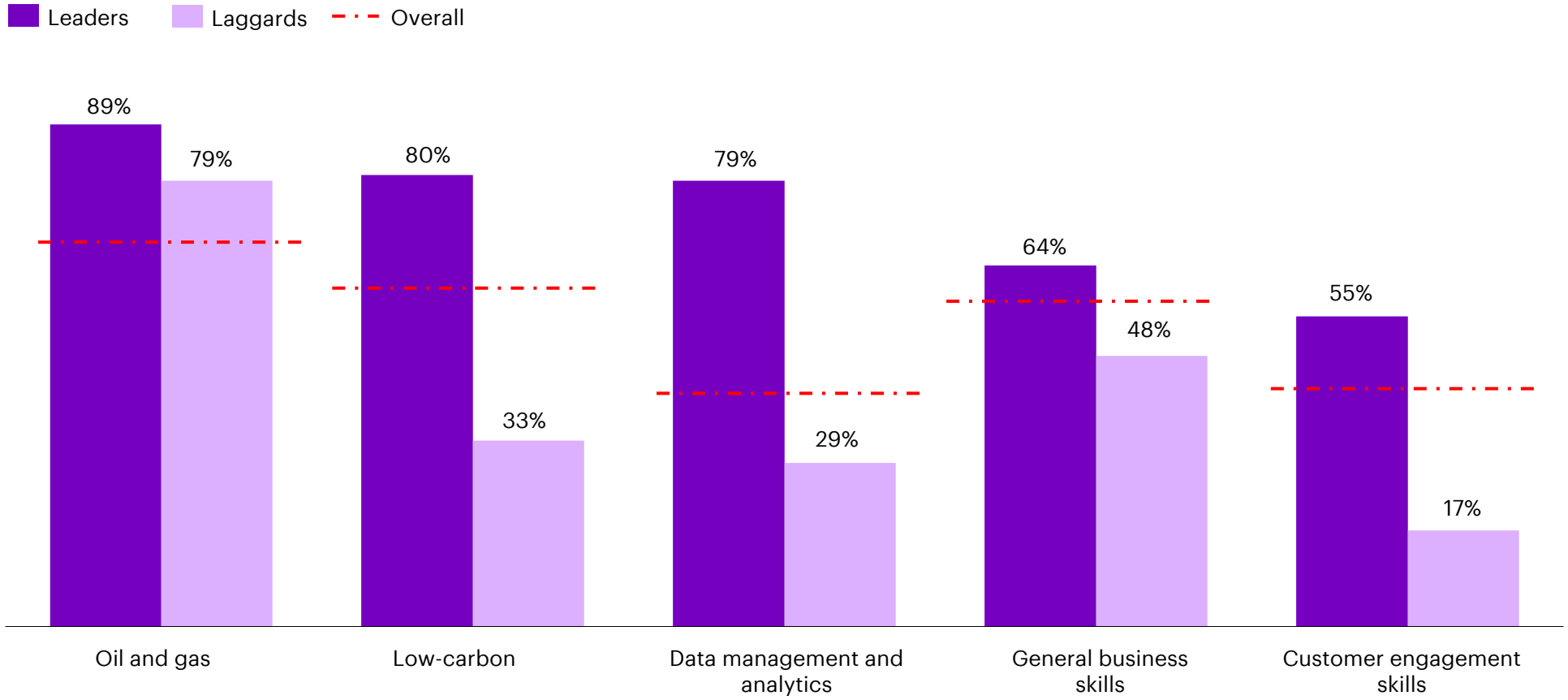
Closing skill gaps continues to be a major issue for the industry. This is especially pronounced in the capabilities that will drive the reinvention: low-carbon skills, data management skills and customer engagement skills. The skill gaps are more pronounced among the laggards (see Figure 31). For example, only 33% of laggards believe they have strong low-carbon industry skills—despite the fact laggards are more aggressively pursuing low-carbon opportunities to boost their competitiveness.

Skill gaps are less pronounced among leaders, but still problematic. For example, even though approximately 80% of leaders believe they have strong skills in data management, digital, IT and low-carbon business, that means 20% find their skills in these areas to be lacking. And while 89% of leaders are convinced that they have strong oil and gas industry skills, 11% do not.

Figure 31.

Leaders are more confident in their workforce skills

Percentage of respondents that agree/strongly agree that they have strong skills in these areas



When it comes to finding the skills needed for the future, more than half of leaders and laggards are confident in their abilities to find the right talent within their organizations. Finding skills outside the organization is another matter altogether. Only 11% of leaders claim to be effective at sourcing outside talent.

The good news is that both leaders and laggards consider skill improvement to be one of their top priorities. And for good reason.

A culture of diversity

In addition to developing or acquiring new skills, energy companies continue to work on creating inclusive corporate cultures that are committed to a purpose and to attracting and retaining a diverse workforce. Leaders and laggards recognize that incorporating diversity, equity and inclusion (DE&I) into their corporate policies, standards and metrics will help them not only deliver on their public commitments, but also improve employee experiences, motivation and retention.

Not surprisingly, the DE&I programs of leaders are currently more mature (see Figure 32). Nearly all the leaders in our research (95%) believe they are delivering the diversity experience, and 75% have seen motivation and staff retention improve as a result. Both leaders and laggards have identified DE&I actions as a top priority over the next three years. Based on the specific actions they plan to take, laggards are actually more committed (see Figure 33). This is possibly because they recognize their weaknesses in this area and see a strong DE&I culture as a way to build a competitive edge and attract talent.

95%

Nearly all the leaders in our research (95%) believe they are delivering the diversity experience, and 75% have seen motivation and staff retention improve as a result

Figure 32
Leaders believe they deliver more satisfying employee experiences

Percentage of respondents that agree/strongly agree

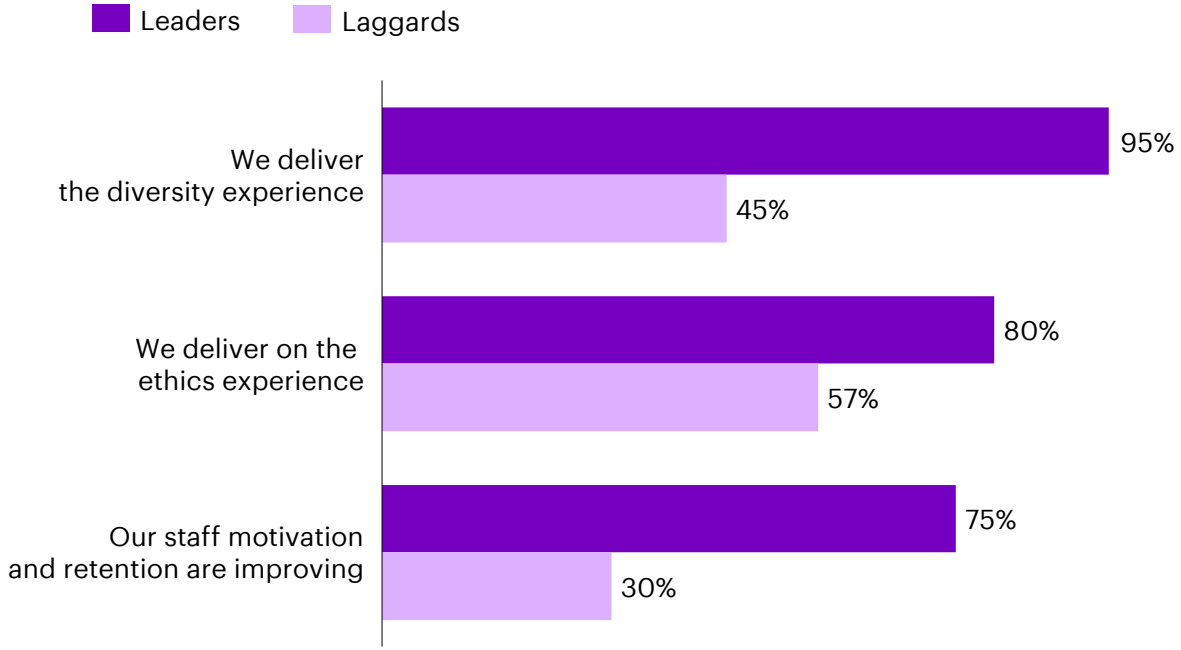
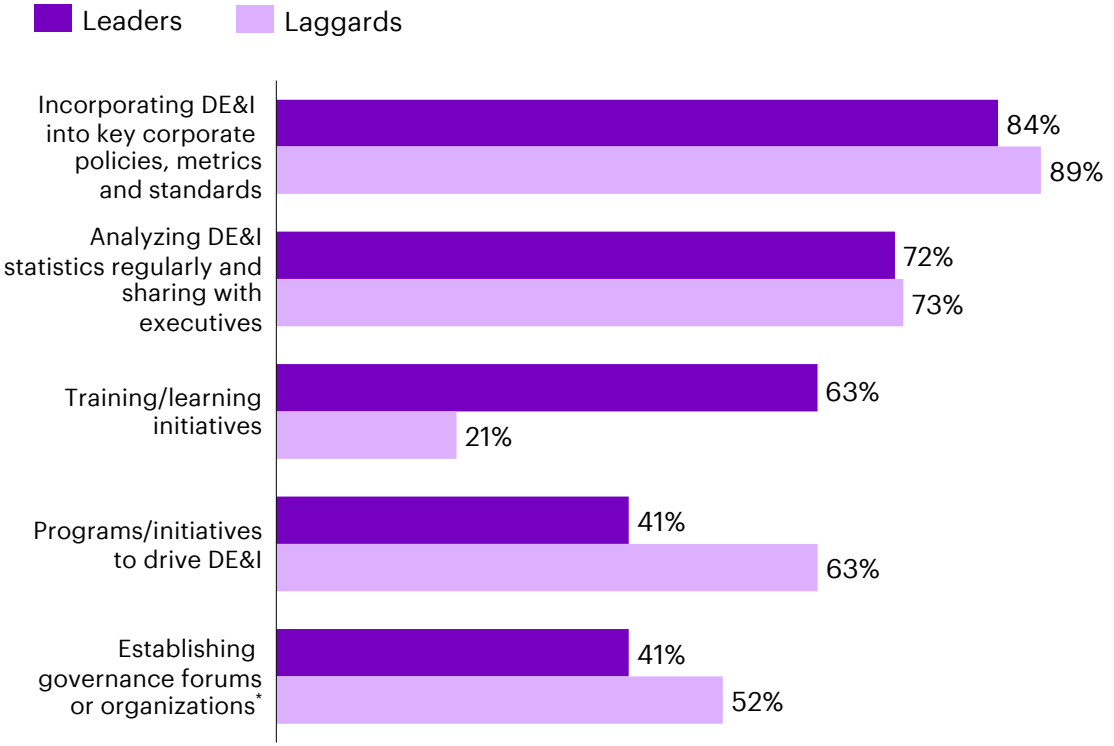


Figure 33.
Laggards are planning to take more decisive DE&I actions in the next 12 months

Percentage of respondents including measure among top 3 diversity actions



*DE&I organization, DE&I Board committee or subcommittee.

Act like a leader by championing a culture of innovation and inclusion

Our analysis revealed three actions energy companies can take to build a culture that not only aligns employee skills and ways of working to the energy transition, but also creates an environment in which total enterprise reinvention can occur. We found that leaders (and also some laggards) are taking steps in the right direction. For example, leaders are aligning their culture initiatives with business requirements (and measuring results).

Leaders are working hard to close skill gaps. And they are prioritizing DE&I in the workplace. The three steps any energy company can take to create a culture that prizes innovation, collaboration and belonging include:

Make culture change a CEO imperative. An exemplary culture needs to be shaped, enabled and modeled from the very top of the organization. New skills and capabilities need to be prioritized, beginning with the CEO and extending down through the organization. Employee behaviors should align with the organization's purpose.

Focus on innovation and collaboration. Reinventing companies, establishing new low-carbon business, optimizing the use of digital technologies and data, and strengthening customer engagement all require new skills and capabilities that aren't easy to find. Building those capabilities internally with collaboration and open innovation, as well as looking for opportunities to reskill the current workforce can help close some of the gaps.

Walk the talk when it comes to DE&I. The energy workforce is evolving, and diversity, equity and inclusion are now fundamental components of the employee experience and critical to attracting and retaining talent. Companies need to incorporate DE&I throughout the organization, set ambitious targets, measure progress, and drive initiatives from the highest levels of the organization.

Radical reinvention revisited

It is clear from our analysis of the 2022 Oil and Gas Reinvention Index responses that reinvention is still a top priority for energy companies—leaders and laggards alike.

Yet circumstances over the past year and the emergence of new industry challenges such as supply chain disruptions, inflation and threats to global energy security have caused companies to reconsider the areas of focus, aggressiveness and speed with which they are pursuing reinvention

This is understandable. Reinvention always occurs within a larger context and in response to external factors. When those factors become less disruptive and threats to energy security subside, we expect to see the pace and intensity of reinvention to increase again.

The good news is that energy companies are starting to demonstrate their appreciation of a balanced approach.

This is most evident in the actions they are taking to achieve competitive differentiation. Leaders are pivoting their attention and investment (and asset production) to a balanced portfolio that not only prioritizes carbon reduction, but also addresses the near-term energy security issue with hydrocarbons. They are also building the organizational and technical capabilities, the talent and culture, and the agility to enable that sort of shift.

Laggards are also looking at reshaping their portfolios to boost their competitiveness. In doing so, however, they are more inclined to shift their investments towards non-hydrocarbon fuels and solutions. Decarbonization opportunities, biofuels and renewables hold particular appeal for them. In short, our research found both groups are placing distinct bets aimed at diversifying and balancing their portfolios.

The balance that is taking place in portfolio management—and in the competitiveness arena, more generally—must now be expanded and built upon. This call for balance underpins this year's recommendations for energy companies looking to reinvent.

Recommended actions for reinvention

Be radical (but also holistic).

Radical reinventions are bold. They are dynamic. And they lay the groundwork for exceptional potential returns within a defined area of transformation. Holistic reinventions, on the other hand, move the organization in lockstep to a resilient, agile, innovative and profitable future. A reinvention plan that is as broad as it is ambitious will set the next generation of industry leaders apart.

Balance the reinvention priorities.

Energy companies are still prioritizing competitiveness and carbon as the pillars of their transformation programs. This is understandable. However, it may be shortsighted. We continue to believe that the most successful reinvention programs will balance their attention and investments across competitiveness, carbon, connectivity, customer and culture. The sooner that balance is achieved, the sooner energy companies will reap the benefits of total enterprise reinvention.

Practically allocate investments—and day-to-day attention.

In addition to balancing the 5C imperatives, energy companies have the opportunity to balance their actions and investments within each area. This year's leaders exhibited that sort of evenhanded approach in the development of their low-carbon business assets, their efforts to manage emissions, their adoption of digital technologies and even their customer interactions. In other words, among leaders, a practical and measured approach to reinvention is becoming more evident in the day-to-day initiatives aimed at boosting performance in any (and all) of the 5C areas. Other companies should consider following their lead.

At the end of the day, there are multiple paths to transformation.

But our 2022 research strongly suggests that the best way forward involves a balanced approach, coupled with achievable expectations.

Be a reinvention leader

About the research

In early 2021, Accenture conducted its inaugural Oil and Gas Reinvention Index research to understand the actions companies are taking to meet the challenges of the energy transition, their progress toward reinvention and the outcomes they expect to achieve. This initiative, comprising surveys and case study research, was updated in 2022 to track the industry's reinvention progress over time.

Survey
The 2022 edition of Accenture Reinvention Index research included a survey of 201 c-suite executives from 201 companies. The survey collected data on:

- Perceived need for reinvention and drivers of change
- Current state of reinvention across the 5Cs: Competitiveness, Carbon, Connectivity, Customer and Culture
- Future reinvention actions planned and anticipated future state
- Expected value to be captured from reinvention

Approach
We aggregated the responses from each participant to arrive at a score for each company". Next, we defined and grouped companies into Reinvention leaders and laggards (i.e., those ahead in terms of their reinvention progress and those who are not changing or are changing slowly).

Definitions
We created a Reinvention Index (RI) Score, composed of equally weighted scores from each of the 5Cs of reinvention with a maximum score of 100. The top 10% of the companies on this score are leaders and the bottom 25% are laggards (last year's edition considered top 10% and bottom 25%).

Calculations
We compared expected financial benefits of pursuing the 5Cs—measured by minimum expected improvement—and calculated the difference in performance between leaders and laggards.

Responsible research methods
Our research, and that of our partners in our ecosystem, employs ethical and responsible research methods. Respondents were anonymous and we commit to not using the data collected to personally identify the respondents and/or contact them.

Survey demographics

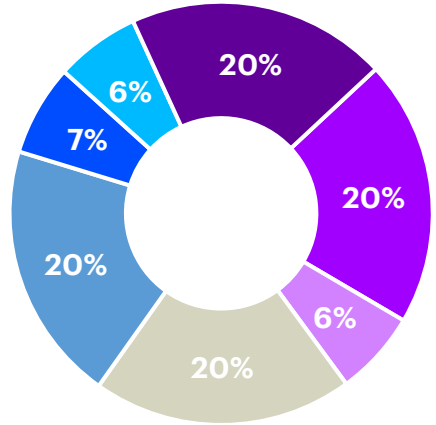
N=201

4 company types	N=	%
Integrated Oil Company (IOC)	80	40%
Independent	81	40%
National Oil Company (NOC)	20	10%
Oilfield and Equipment Services (OFES)	20	10%

8 Regions	N=	%
Australia/New Zealand	2	1%
Canada	32	16%
China	6	3%
Europe	70	35%
India	13	6%
Latin America	10	5%
Middle East	20	10%
USA	48	24%

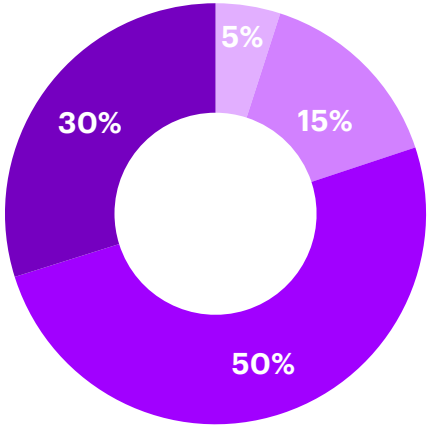
CXO Title*

- Chief Financial Officer
- Chief Innovation Officer
- Chief Marketing Officer
- Chief Strategy Officer
- CIO/CTO/CDO
- Chief Mobility Officer
- Chief Operating Officer



Revenue

- $100m-$499m
- $500m-$999m
- $1b-$10b
- >$10b



* Includes direct reports

Units and abbreviations

5Cs	Competitiveness, Carbon, Connectivity, Customer and Culture
AI	Artificial intelligence
B2B	Business-to-business
B2C	Business-to-consumer
CAPEX	Capital expenditure
CCUS	Carbon capture, utilization and storage
DE&I	Diversity, equity and inclusion
EBITDA	Earnings before interest, taxes, depreciation and amortization
ESG	Environmental, social and governance
FCF	Free cash flow
GDP	Gross domestic product
HC	Hydrocarbon
IoT	Internet of Things
LNG	Liquified natural gas
OFES	Oilfield equipment services
RI	Reinvention Index
ROCE	Return on capital employed

Endnotes

1. Accenture analysis with data from Rystad Energy
2. Accenture analysis with data from IEA World Energy Outlook 2021
3. Accenture analysis
4. Accenture analysis with data from IEA World Energy Outlook 2021
5. Fast forward - Accelerating the journey to reinvention (2021, June).
   Accenture: https://www.accenture.com/us-en/insights/energy/accelerating-journey-to-reinvention-in-oil-and-gas
6. IEA WEO 2021
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   Accenture: https://www.accenture.com/in-en/insights/energy/changing-joule-dynamic
9. From Always Connected to Omni-connected (2022) (Energy industry n=500).
   Accenture: https://www.accenture.com/us-en/insights/strategy/organizational-culture?c=acn_glb_omni-connectedegoogle_13008756&n=psgs_0522&gclid=CjwKCAjwyaWZBhBGEiwACslQo8vsqn8bI4VTBv5qnnohYaKM850IeZS4ER4--gv5VELSdvcAo2WW9BoCla4QAvD_BwE&gclsrc=aw.ds

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