

Innovation Index:

How North American organizations are achieving growth, value and high performance



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Welcome

The first two editions of the NTT DATA Innovation Index focused on the themes of digital strategy in an era of constant disruption (2021) and how organizations shifted business focus from disruption to growth (2022). In this third edition (2023), we provide a state-of-the-market report on innovation and digital transformation — the primary drivers of it, how organizations approach it and where organizations spend their innovation dollars. Our study also identified a select group of organizations that are more advanced at innovation and do things differently. These “Innovators” are growing faster, achieving higher net profit margins and exceeding expectations from innovation investments compared to the rest of the market. We’ll share proven practices that these innovation leaders use to transform smart ideas into continuing advantage and how to overcome the many barriers to innovation.

Why focus specifically on innovation now? After all, many other factors contribute to business success to generate revenue and profit: superior strategy, engaged customers, top talent, operational excellence, technology mastery and visionary leadership. In the backdrop of continued global change and shifting strategies, resilience has emerged among the top indicators of success. Our report indicates that organizations innovate because it’s essential for generating business resiliency. It also drives superior digital experiences and leads to higher profits and margins, as evidenced by the Innovators.

Innovation has become intrinsic to survival. It has moved out of the lab of the future where something might happen someday, into the practice of everyday business where success requires a dependable flow of fresh ideas and impeccable implementation of them. The most successful organizations respond to business and environmental upheavals by building innovation strategies to generate value in the face of persistent change.

“

Almost all organizations say innovation will be their primary source of growth over the next two years, yet only a fifth believe they are achieving any of their innovation goals and objectives. Whether practical or groundbreaking, successful innovation requires a modern IT infrastructure, insightful as well as relevant and trustworthy data, and employees with the necessary skills. Clearly, a substantial majority of organizations are falling short on these key measures.”

— **Bob Pryor**, Chief Executive Officer, NTT DATA



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Research approach and demographics

We surveyed 1,000 business and IT professionals in the United States and Canada. The survey was in the field in early summer 2023. Respondents were key performers in their organizations, with 15% in C-level roles, 35% at VP or director levels, and the remaining 50% being direct reports.

These specific questions guided our research:

- What are the primary drivers of innovation for organizations?
- How do organizations approach innovation?
- What do advanced organizations do differently in terms of innovation to achieve growth and high performance?
- What challenges prevent organizations from achieving their innovation and digital transformation goals?
- What can organizations do differently in how they manage innovation?

After reviewing the results, a small group of “Innovators” — 11% of respondents — emerged as being more advanced and mature in innovation systems and infrastructure, leadership, culture and digital customer experience. Comparing Innovators to the rest of the respondents enabled us to provide deeper insights into how organizations integrate innovation into their day-to-day operations and offer key business strategies to address the challenges they face.

What is innovation?

For the purposes of our study, innovation is defined as the development of new processes, products or services that increase business value over existing offerings. Innovation for the sake of being innovative is an empty target.

What is digital transformation?

The process of adopting new technologies and applying them to processes, workforce strategies, products and services, and other aspects of the organization, usually with the goal of improving performance and/or increasing customer value.



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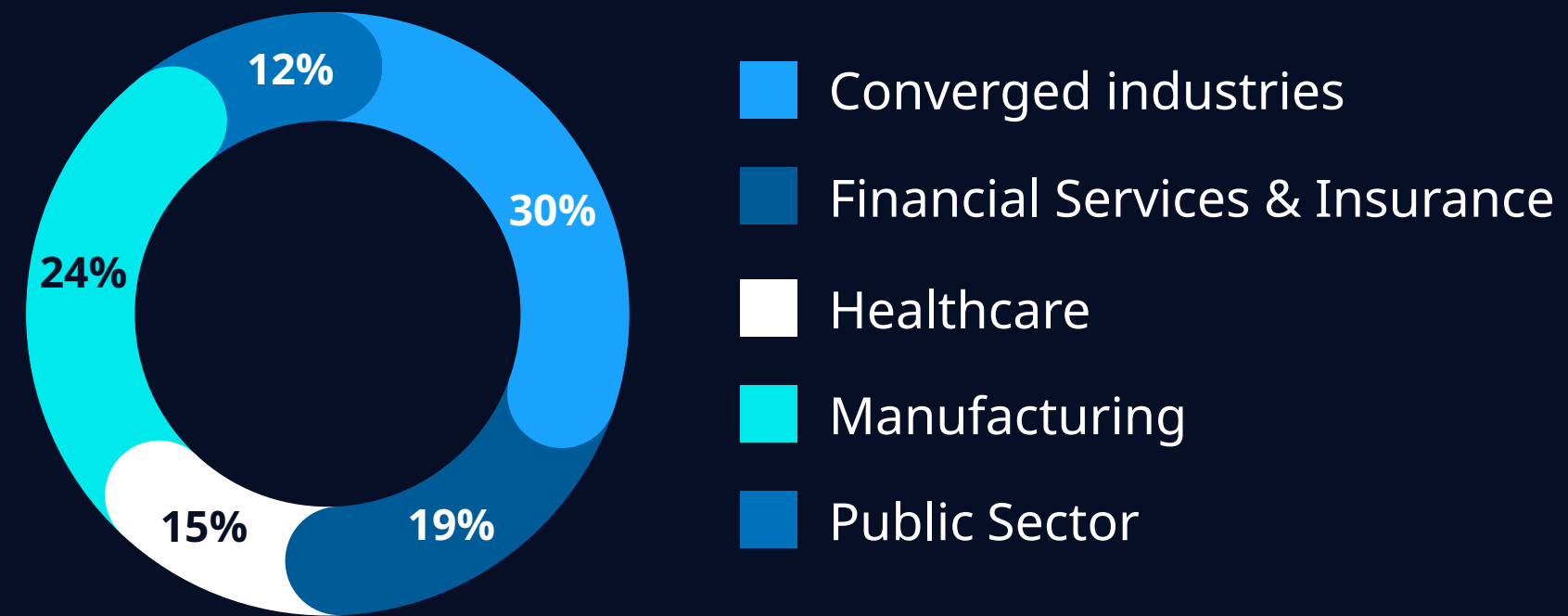
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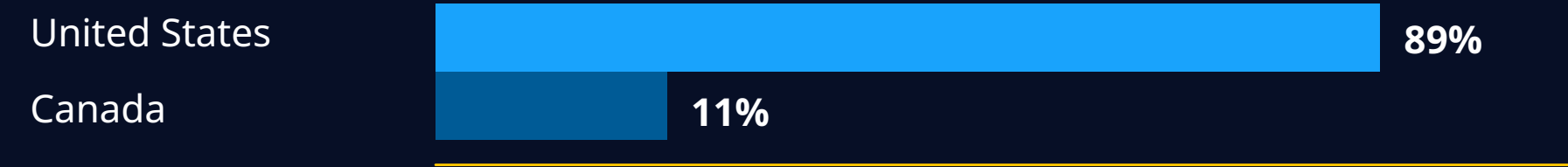
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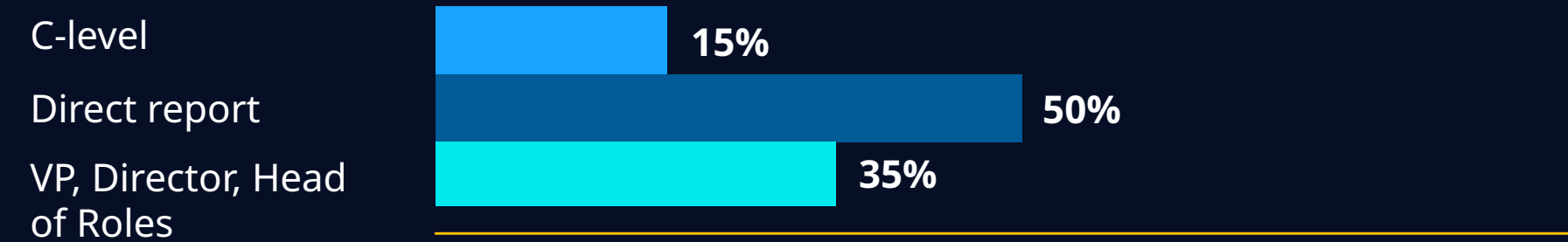
Industry breakdown



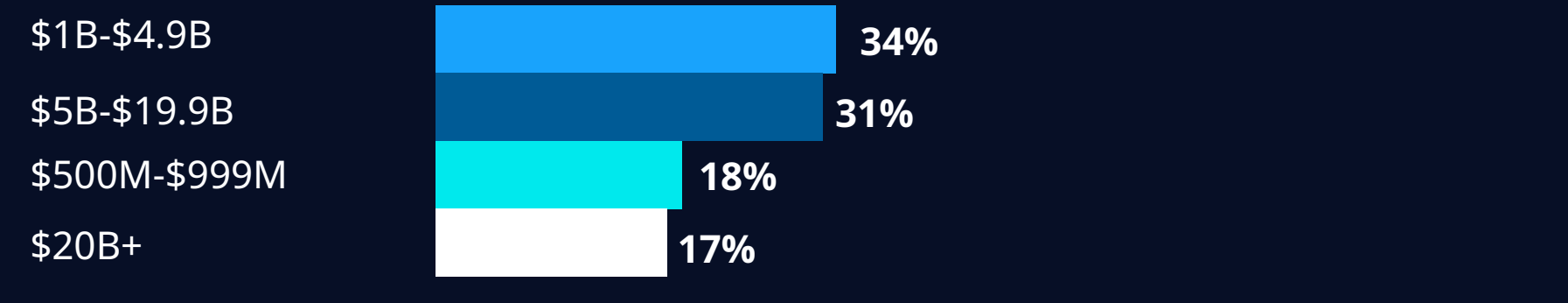
Respondents by country



Respondents by job title



Respondents by company revenue



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Top drivers of innovation



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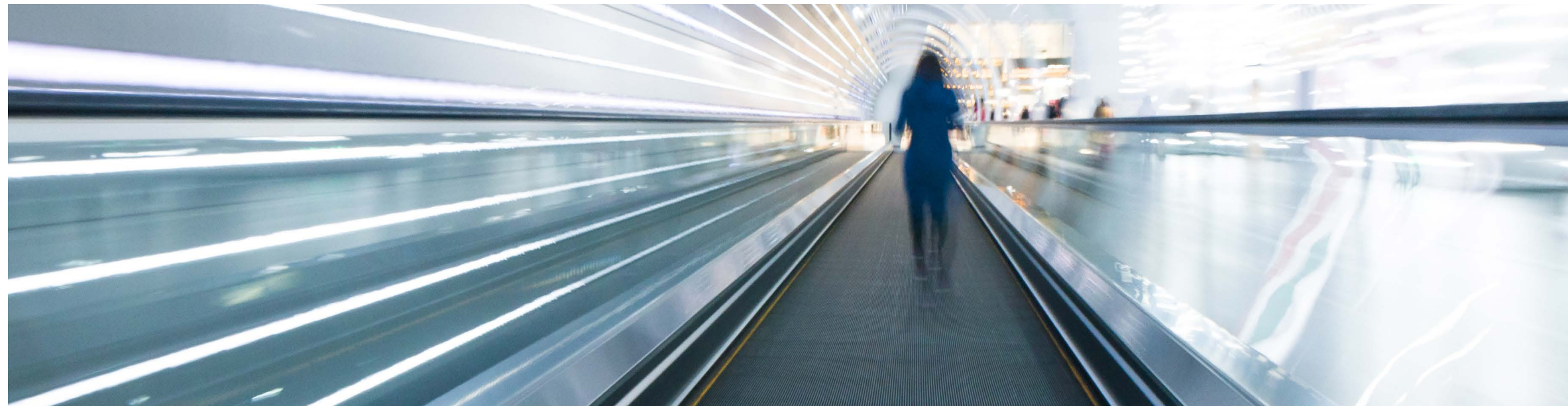
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Top drivers of innovation

Growth, process efficiency, sustainability rise to the top



Executives remain focused on growing a business that's efficient, productive and profitable. And 96% of executives surveyed believe the development of new processes, products or services that increase business value over existing offerings (innovation initiatives) will be a primary source of achieving that growth over the next two years. When executives were asked to rate the primary drivers of innovation for their organization, the results were interesting. Business growth emerged as the number one primary driver of innovation, followed by process efficiency, sustainability and profitability. These drivers far outweigh the others: customer satisfaction, adapting to new market dynamics and technology, employee engagement and retention, and agility to adapt as circumstances change.

Primary drivers of innovation



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Business growth is the top driver of innovation

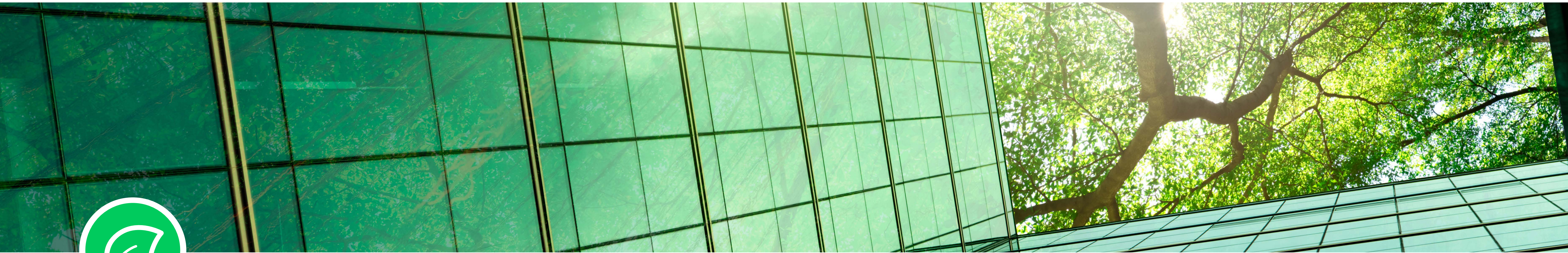
Business growth has been top of mind for organizations over the past few years, pandemic notwithstanding. In fact, growing the business has consistently emerged as a top priority over the last three years of this survey. This year, it's also seen as a primary driver of innovation. As a response to global change and in preparation for growth, 52% of organizations have created new products and services and integrated new technologies into processes. Organizations also feel buoyed by the pace of technology change (58%), workforce and workplace dynamics (46%), and supply chain operations (42%). On the flip side, and possibly spurring the extra focus on growth, executives fear negative impacts from economic factors — which has more than doubled compared to last year (42% versus 16%) — and a third (28%) continue to feel threatened by geopolitical and competitive factors.



Process efficiency and productivity ranked second

Process efficiency and productivity are key indicators of business health and crucial for organization profitability. It's no surprise then that efficiency emerged as a top three strategic goal for organizations for the second year in a row. Process efficiency requires modern IT and approaches and organizations are putting wind behind these sails too. For example, innovation systems and infrastructure (54%) ranked as the top investment priority over the next two years, followed by managing data (44%) and digital customer experience (41%). And when asked to rate their organization's performance, 57% said productivity was above average and 44% said profitability was above average. But challenges remain. As high as 40% cite inefficient processes as a barrier to providing high customer and employee experiences.





Sustainability rose to the top three

For the first time in our survey’s history sustainability rose to the top of the list and is now a top-three driver of innovation. Interestingly, a quarter (26%) ranked it as the number one driver of innovation (automotive [50%], commercial [32%], healthcare payers and plans [38%] and public sector [26%]). Whether that’s due to pressure from customers, employees, regulators or advocacy groups — or maybe all four — organizations invest significantly in innovation to improve society and the environment around them. In fact, 90% of S&P 500 companies now have environmental, social and governance (ESG) strategies.¹

Even as quarter of the respondents voted sustainability as a top priority for their organization, when asked what decisions their organization had made in reaction to global changes, only 28% said they had incorporated new sustainable practices in internal operations. This result indicates that organizations still struggle to prioritize ESG programs above traditional business initiatives such as growth, efficiency and costs. It’s likely that growing regulations are forcing sustainability up on the priority list as companies risk losing market share and recognize the reputational/financial cost of noncompliance. Organizations must also guard themselves from greenwashing, which involves the prioritization of appearing environmentally friendly over actually minimizing environmental effects.



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Meet the Innovators

11% develop disruptive & breakthrough innovations

The Innovator group is the 11% of respondents who swing for the fences by developing disruptive and breakthrough innovations. Innovators not only develop new technological breakthroughs that create new markets and disrupt existing markets, but they are also more advanced in their innovation leadership. Innovators fine-tune their organizational design and culture to generate growth through innovation.

	Innovators	Rest of market
Develop new technological breakthroughs that create new markets	55%	0%
Create new technologies or business models that disrupt existing markets	45%	18%
Advanced in innovation systems & infrastructure	78%	36%
Advanced in innovation leadership	74%	44%

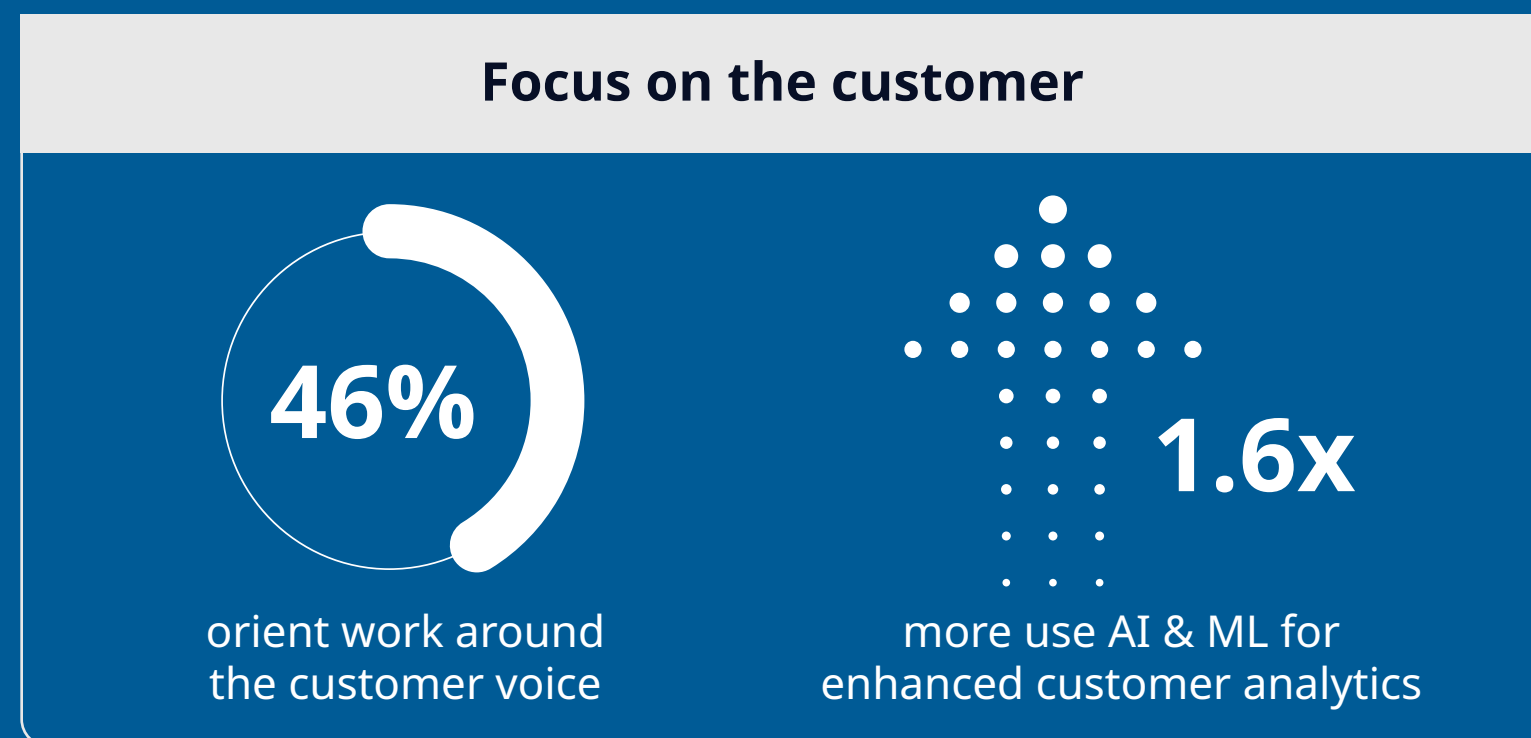
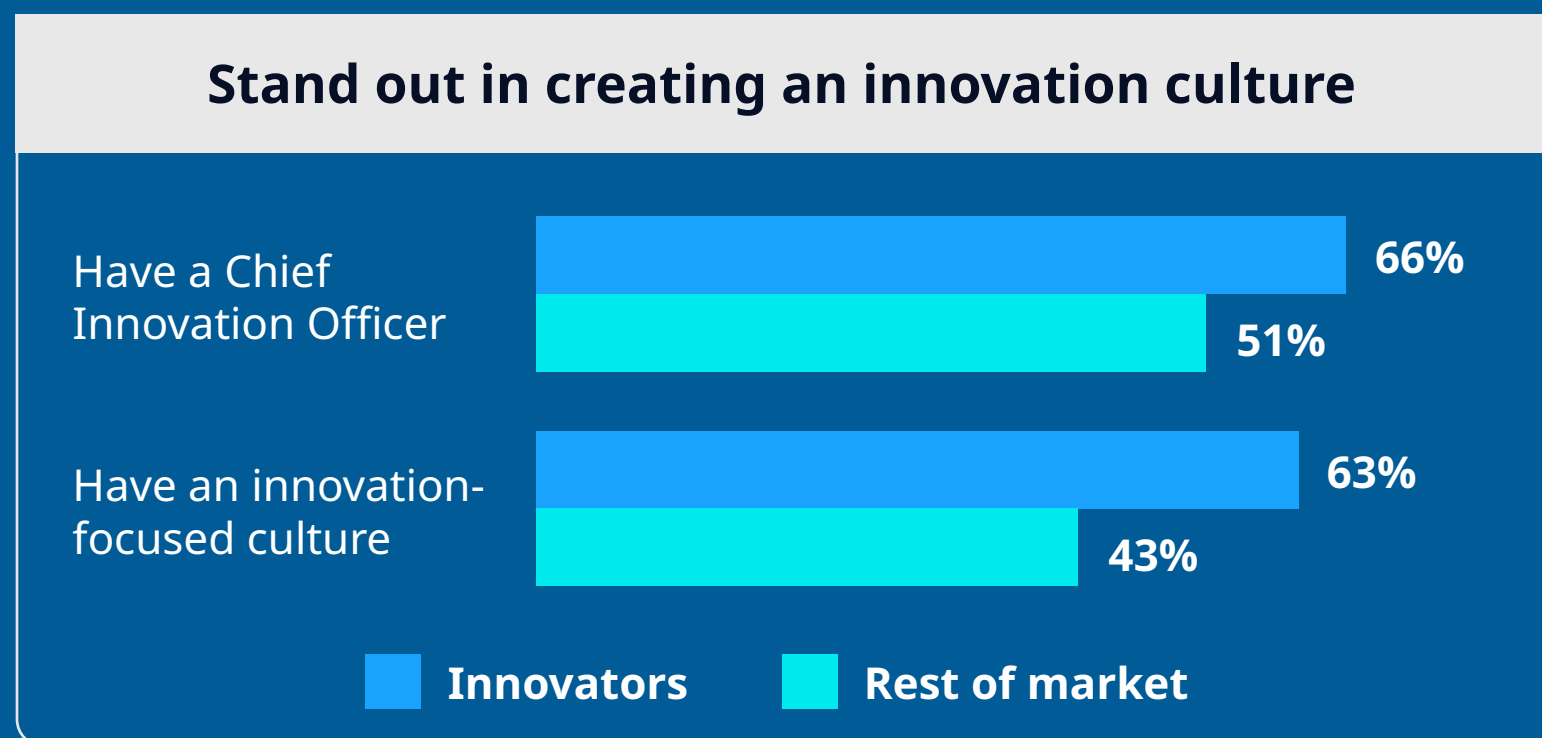


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What Innovators do differently

Because innovation is central to their business models and intrinsic to survival, Innovators design their organizations differently too. Innovation initiatives have direct ties to the C-suite through executives like the chief innovation officer. They're data-driven and relentlessly focus on the customer. They value employees and work hard to recruit and retain the best talent.

Here are nine things Innovators do differently to drive growth, value and high performance.



View sustainability as a primary driver of innovation

Ranked sustainability #2 driver of innovation, behind business growth & before profitability



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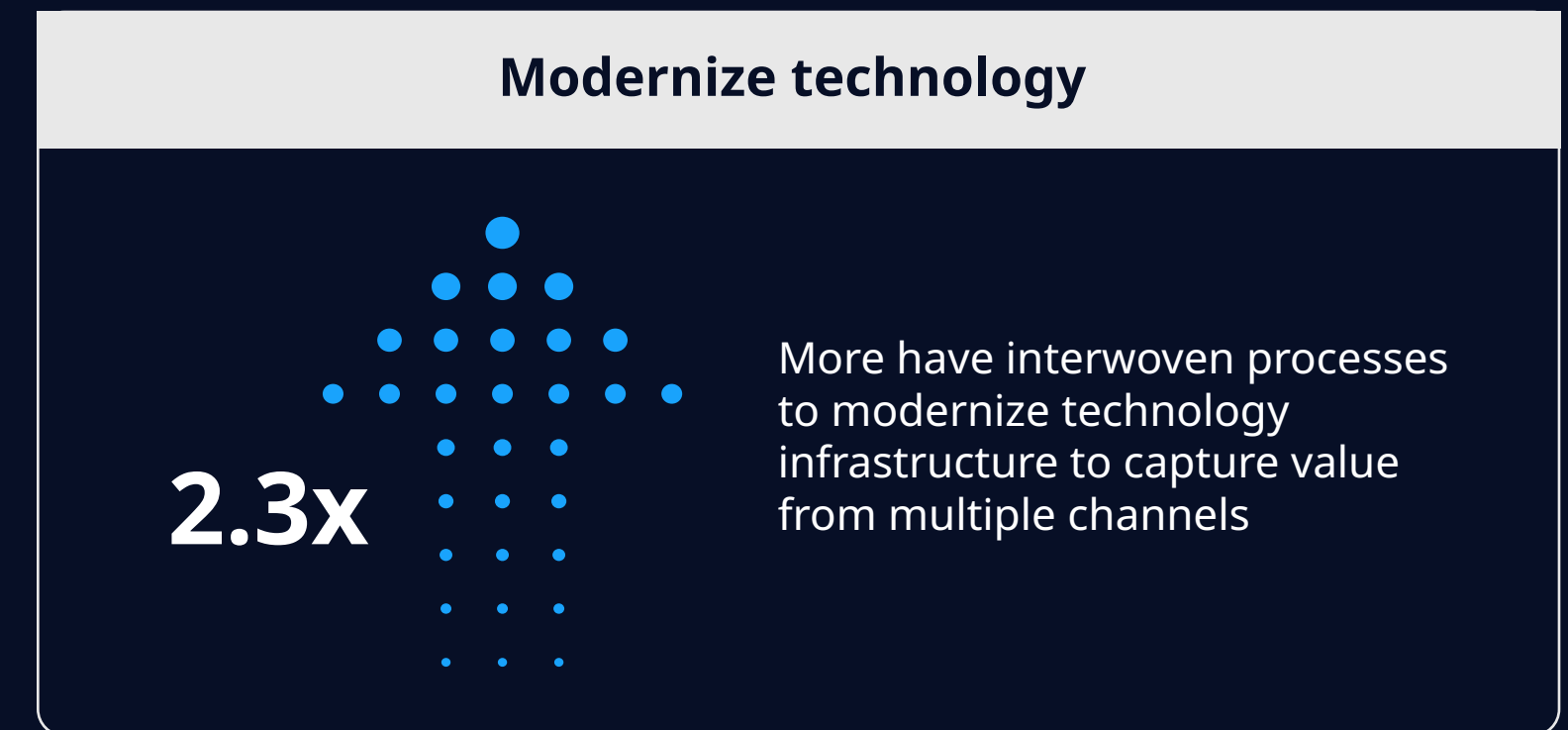
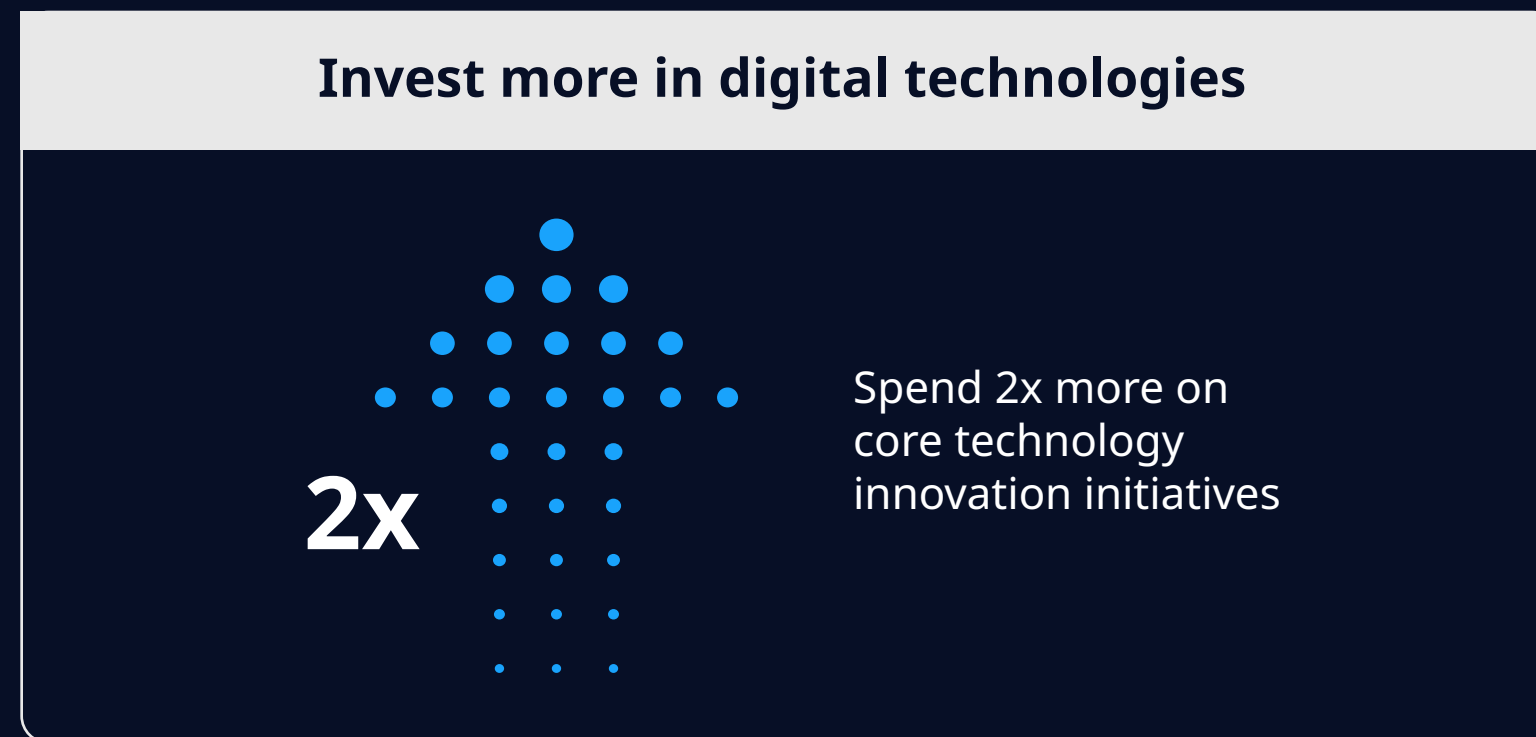
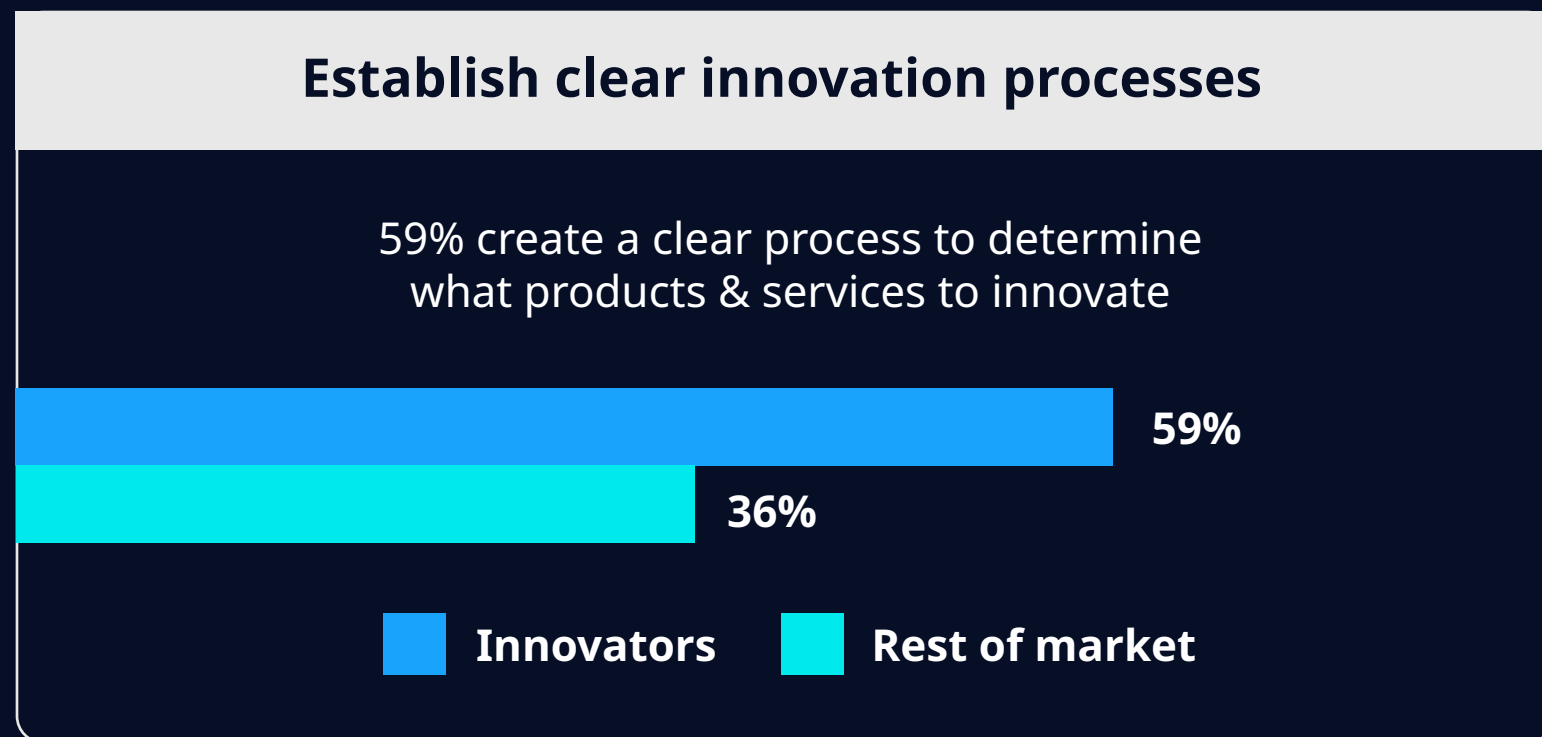
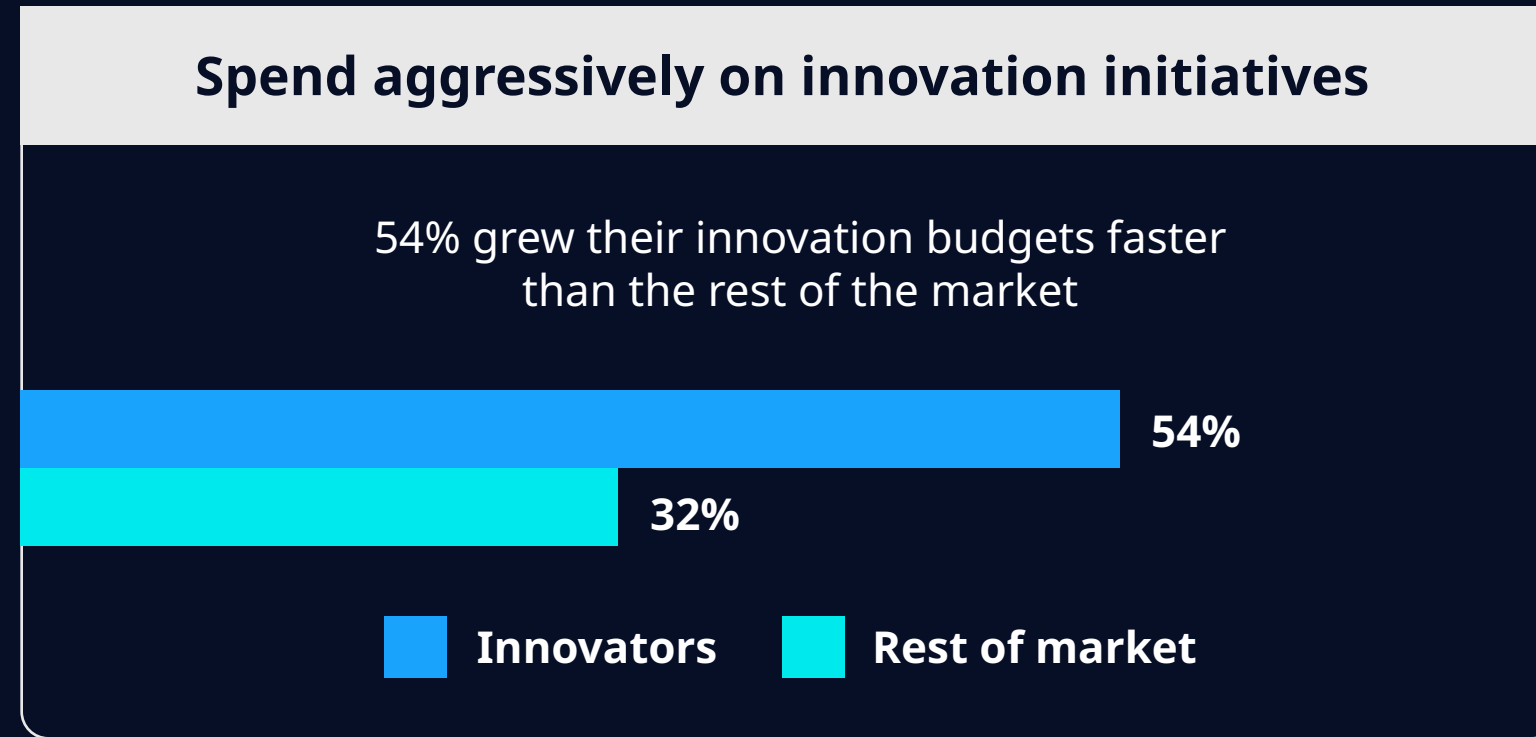
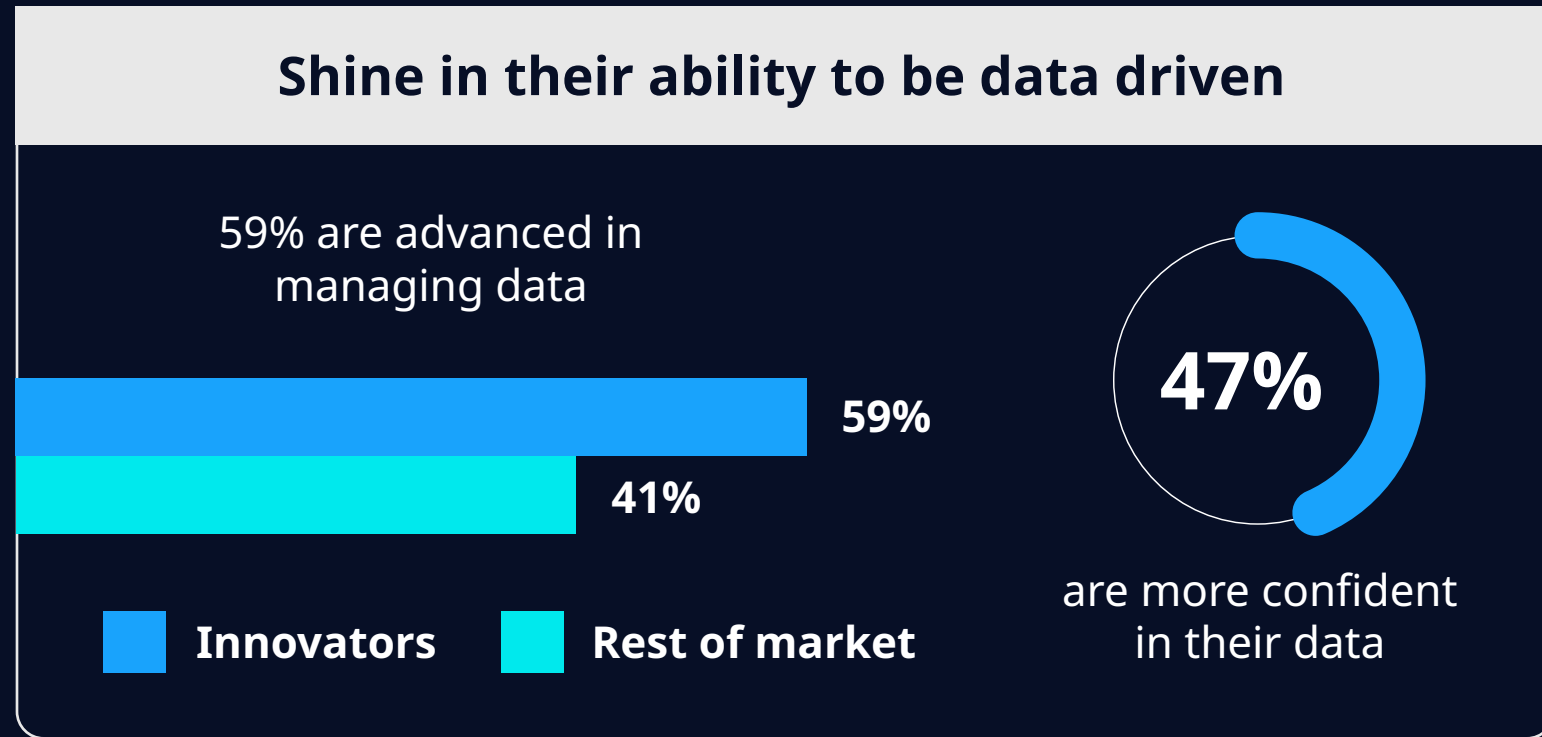
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More of what Innovators do differently



How organizations approach innovation



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How organizations approach innovation

Breakthrough innovation or practical innovation?

Organizations innovate differently and for different purposes, whether to be able to adapt to changing environments and circumstances or to foster growth and gain an edge over the competition. Because the end goal is different, the approach and methods vary too. But what approaches have the biggest impact or return on investment? Respondents weighed in on these five approaches:

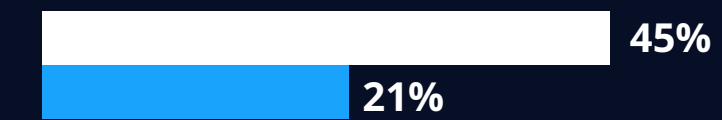
- Gradual, continuous improvements made to existing products and services. Think Toyota, adding a new color to its Camry lineup.
- Incremental innovations are small improvements to services that address changing customer demand. For example, Zillow added a button to its online listings that makes it easier for users to request home tours.
- Significant innovations are designed to maintain market position against competitors. Think Amazon rolling out their own grocery stores that use checkout-less technology.
- Disruptive innovations use new technology to challenge an existing market. Think driverless taxis or drone delivery.
- Breakthrough innovations use technological inventions to create entirely new markets, like the world's first AI-generated anti-fibrotic small molecule inhibitor drug.

Among executives, 74% believe practical innovation or innovation that builds on past successes (gradual, incremental and significant innovation) will produce the best ROI for their organizations in the coming two years. But the Innovators take a different, more aggressive view. They believe that disruptive and breakthrough innovations will achieve the biggest impact for their organizations. They're built to generate big-bang results and rely on intellectual property to protect them from competitors for months or even years.

Creating a new technological breakthrough that creates a new market



Creating a new technology or business model that disrupts an existing market



11%

however, Innovators believe a more aggressive approach will achieve the biggest impact for their organization

Significantly improving a product that aims to maintain its position in an existing market



Improving services to address changing/increasing demands of customers



74%

still believe 'practical innovation' - building on past successes - produces the best ROI

Creating gradual, continuous improvements on existing products & services



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Like last year, three-fourths of our respondents believe practical innovation will produce the best ROI. This was expected, since it's the safer bet, especially in uncertain times when innovation is mainly used to improve efficiencies or gain agility. On the other end of the spectrum, we have high-growth companies. They take a high-risk approach and have a high-risk appetite, because it's essential to their survival. They can also make these leaps of faith when it comes to innovation. We see the pronounced difference in the results too — 55% of Innovators, versus only 6% of all respondents, when it comes to their approach to “creating a new technology breakthrough that creates a new market.”

According to Tanvir Khan, Chief Digital Strategy Officer at NTT DATA, an organizational approach to innovation should include:

1. **Patience and commitment.** Innovation journeys — from ideation to execution to value realization — take time. Nothing happens overnight. Think Meta, Uber or ChatGPT; they were years in the making before they went mainstream. Patience and commitment to strategy is key.
2. **Right processes.** Successful innovators have the right processes to capture and evaluate ideas; they commit to resources and follow through on execution. And lastly, they measure results.
3. **Alignment to business goals.** Innovation must be aligned to the strategic direction of the company; shiny object innovation projects unrelated to the business can be a distraction and should be avoided. The world of innovation is strewn with successful proof of concepts (POCs). If you don't know what you'll do with the POC after it succeeds, don't do it.



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How organizations approach innovation

79% to invest in mainstream or growth innovation

A strategy planning document suggests where organizations want to go, but a budget spend forecast is a stronger indication of intent. So, we also investigated the type of innovation initiatives, the role that technology plays in innovation and most importantly, how organizations are spending their innovation dollars. We asked respondents to choose from:

- 1. Emerging innovation**, which develops breakthrough solutions and assets for potential new markets or opportunities
- 2. Growth innovation**, which helps an organization expand existing assets and exploit adjacent markets
- 3. Mainstream innovation**, which helps optimize existing assets for existing customers/markets

While many enterprises know that being innovative might be the need of the hour, as history has proven to us time and again, they're also risk averse, especially during turbulent times. No surprise then that most organizations resort to traditional and safe methods and invest in innovations for incremental efficiencies and cost reduction. But disruptors think differently; they don't shy away from making those bold moves. Firstly, they have a clear vision and picture of how these investments will play out in the larger organizational strategy. Next, they're ready with the design and the implementation of their innovation play. Lastly, they're prepared with alternatives when they meet with obstacles or even early failures. And as they say, to the victor belong the spoils.

Innovation types

Emerging

Develop breakthrough solutions and assets for potential new markets/opportunities

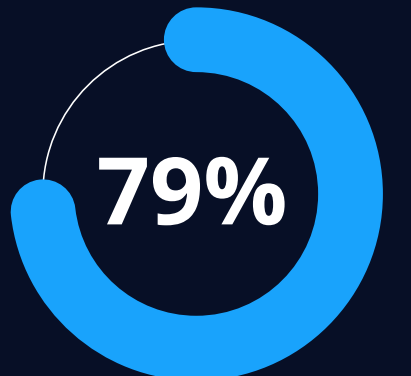
Highest proportion of planned innovation expenditures over the next two years



allocate 10% more spend to develop breakthrough solutions and are planning to reduce spend 3-5% on innovation to optimize or expand existing assets

Growth

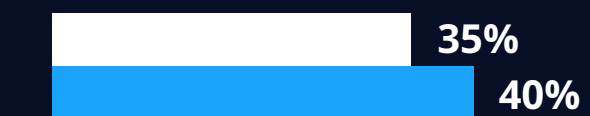
Expand existing assets and exploit adjacent markets



plan to invest in mainstream or growth innovation

Mainstream

Optimize existing assets for existing customers / markets



■ 11% Innovators ■ Rest of market



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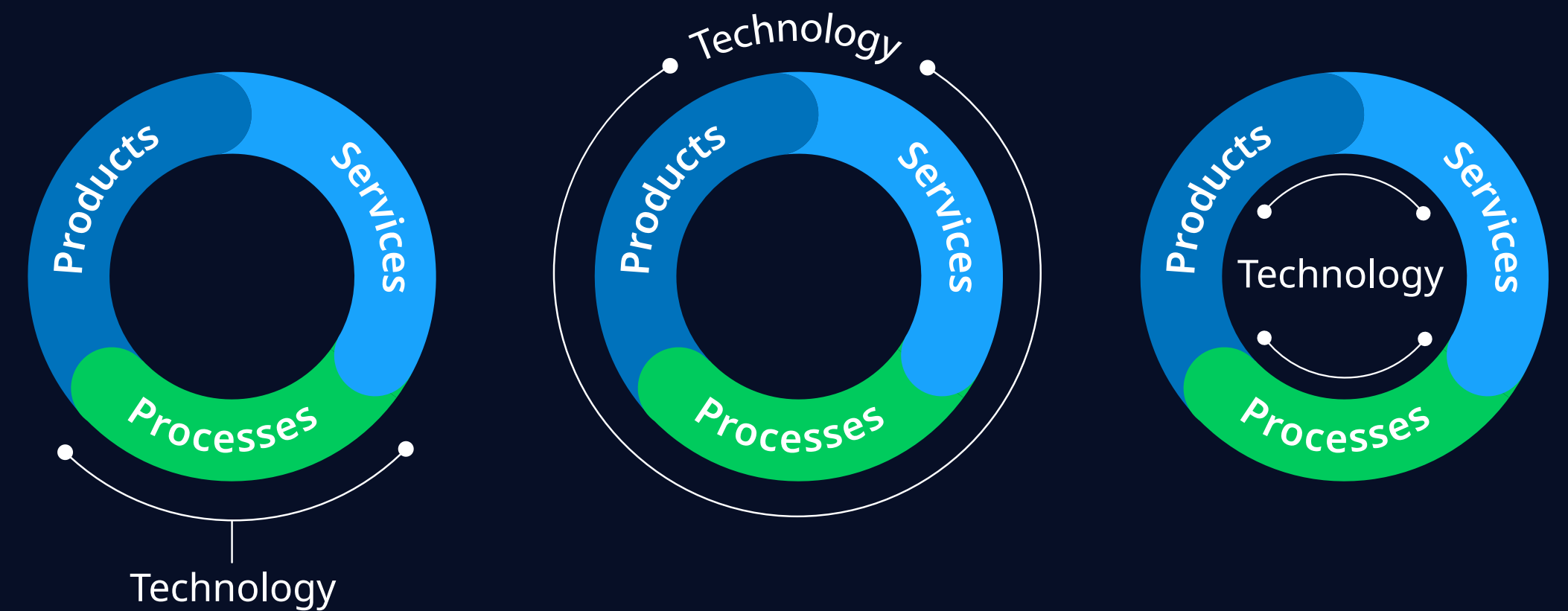
How organizations approach innovation

Technology is becoming core to innovation

Since the beginning of time, innovation has proven essential to humanity's survival, development and growth. We're now in the sixth industrial revolution and technology is evolving at an unprecedented rate, where the cycle is getting shorter and tighter. Billions of people are connected to unlimited processing power, and enterprises have access to data and cutting-edge technology like generative AI. A whole class of businesses have emerged around technological innovations.

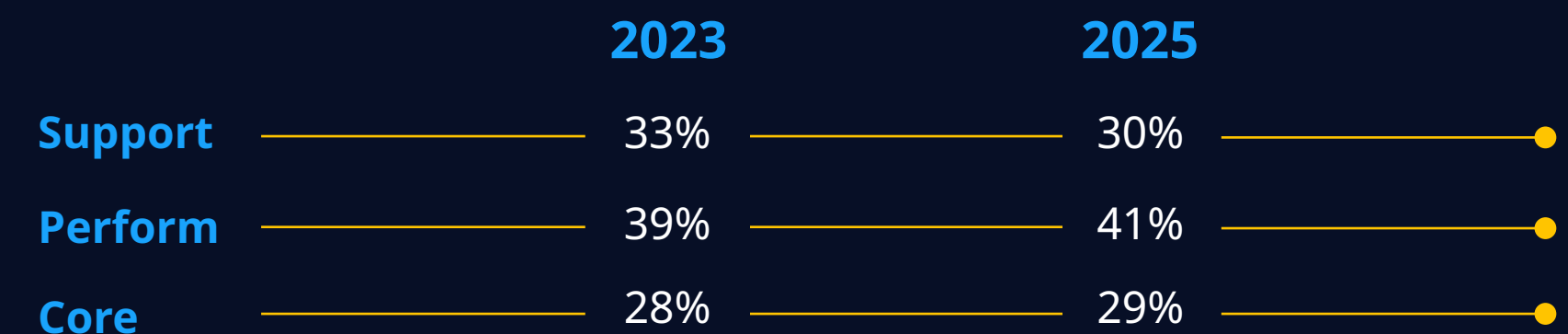
Organizations are evolving from using technology that supports the business to integrating it with products, services and processes for improved performance and making it core to their business strategy and operations. This approach is transforming the way products and services are conceived and delivered.

Our research shows that technology is becoming more central to the way companies create innovative products and services. So, understanding how executives spend and plan to spend on various types of technology is a critical indicator to the new waves of growth.



	Support	Perform	Core
Support	Technology is not integrated (i.e., UniPay Online Payment, Gillette Razorblades)		
Perform		Technology automates tasks, connects & communicates with customers & partners (i.e., Amazon Subscribe & Save, Subzero Refrigerator App)	
Core			Technology is central to innovation (i.e., Netflix, Uber, Airbnb)

Over the next two years, organizations will increase spend on innovation projects with perform and core technology and decrease spend in support technology.



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The role of technology in innovation is moving from support to perform to core, and organizations will need to keep up with this quickening pace of technology evolution or risk falling by the wayside. The world is seeing innovative and disruptive breakthroughs faster and faster. And just like how offshoring changed the outsourcing industry 20 years ago or cloud computing technologies upended the way we store and share data, generative AI is set to disrupt the IT industry. “It will fundamentally change the industry,” says Tanvir Khan.

Amidst these changing times, our research indicates that organizations will increase their spend on innovation projects, with perform and core technologies as the front runners. This approach entails fundamental shifts in every aspect of the enterprise, from how businesses are structured to how they operate. Khan adds, “For example, AI is going to take a huge amount of labor for content generation and the biggest impact we will see is in the code generation space. Organizations will also need to step up to train and constantly reskill their people.”

“

While we might be in a hype cycle with generative AI, it’s hard not to see its potential to revolutionize the IT industry. As with other big tech leaps, most organizations are ill-prepared to handle or implement this technology into existing infrastructure to reap its full benefits. But what I think is most critical is the speed of adoption of these new technologies. Waiting is not an option. If you wait, you’ll be playing catch-up.”

— **Tanvir Khan**, Chief Digital Strategy Officer, NTT DATA



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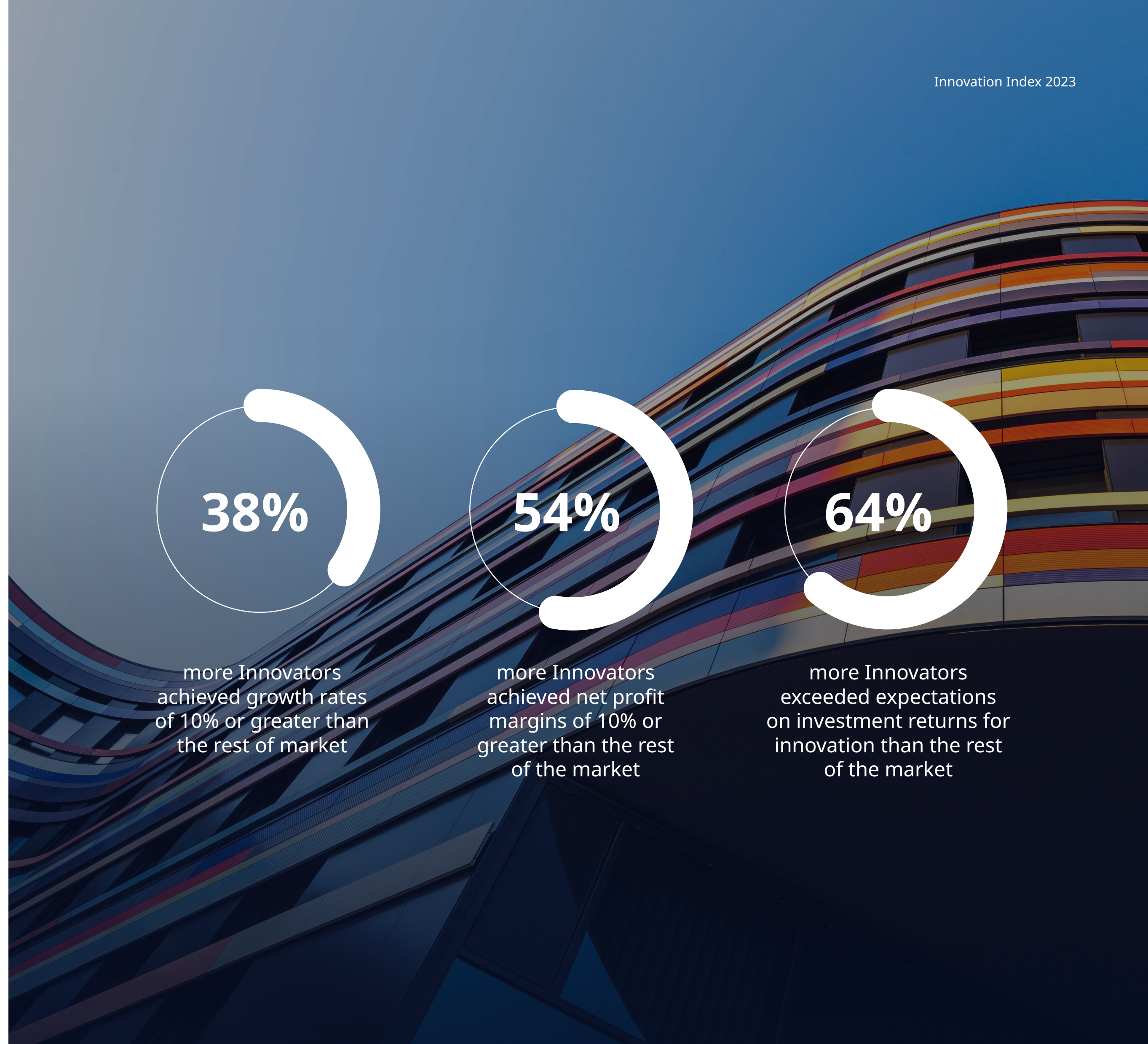
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Yes, innovation pays off

The higher-risk bets that Innovators take pay off with higher revenue growth and profit compared with the rest of the market, according to our survey. Among Innovators, 91% increased their net profit margin over the past two years, 7% more than the rest of the market, and 88% increased revenue over that same time, 8% more than the rest of the market. Innovators exceeded ROI expectations of their senior leadership team from their innovation initiatives over the past two years, 39% versus 26% of the rest of the market.

Innovators grow faster too. In fact, 38% more Innovators achieved growth rates of 10% or greater than the rest of the market. Innovators also produce higher margins, and their ability to grow quickly leads to higher profit margins. Our research shows that 54% more Innovators achieved net profit margins of 10% or greater than the rest of the market. Finally, Innovators generate higher investment returns: 64% more Innovators exceeded expectations on investment returns for innovation than the rest of the market.

These statistics suggest that companies that focus more on innovation with greater investment, cultural and organizational support, and talent acquisition can pay off on both the top and bottom lines.



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How organizations approach innovation

But, why is innovation so hard?

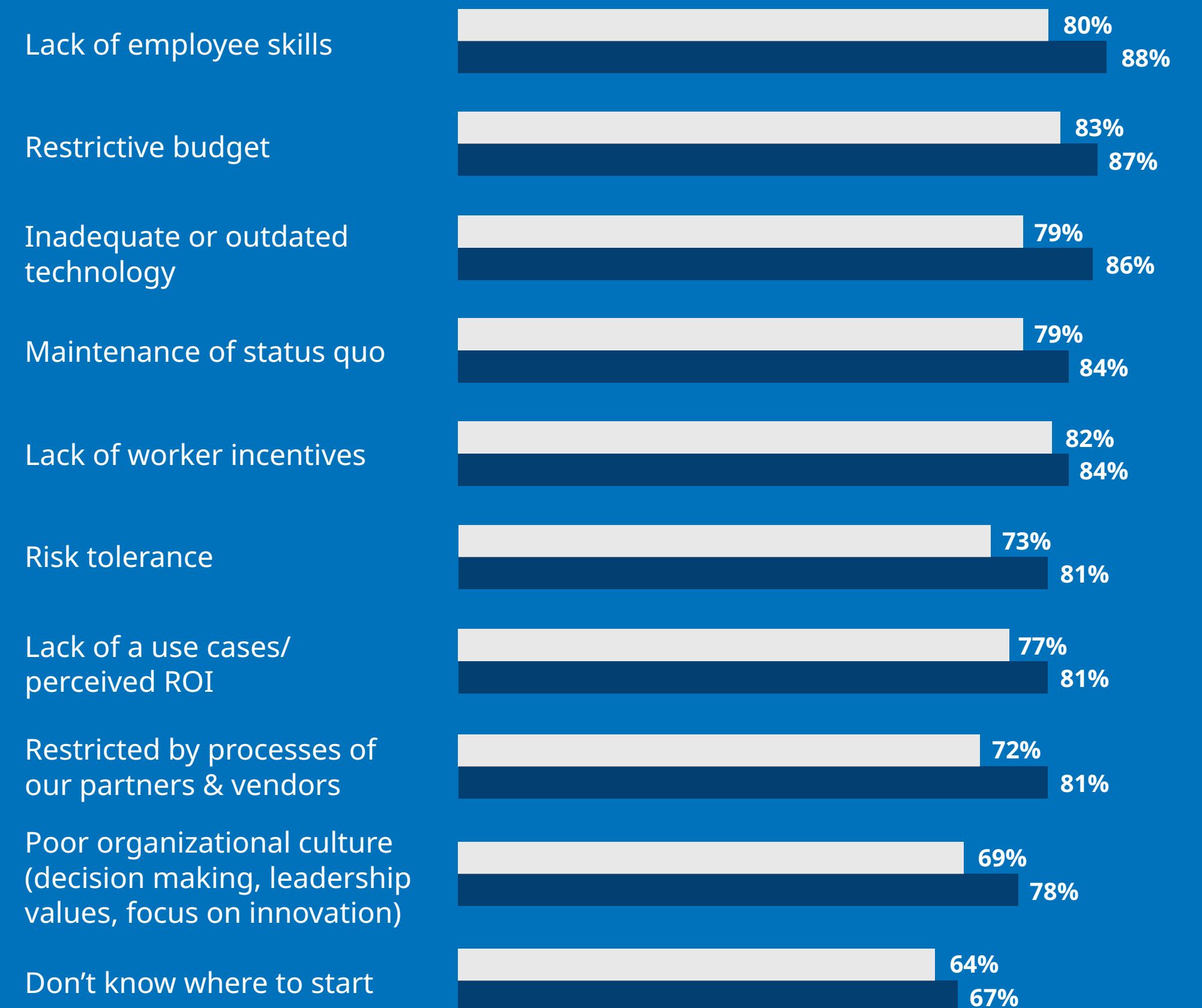
Enterprises know they need to get better at innovation, and yet only 21% of our respondents said they're completely meeting their innovation goals. So, what ails them?

One side of innovation is creativity, free-thinking and the initial spark of an idea. The other side is the operationalization and realization of that idea. Both are equally important. These two sides, like two complementary DNA strands that conjoin to create a new organism, come together for the success of an innovation initiative.

Operationalizing innovation is as critical to success as the initial idea itself. It requires many different aspects to work together, starting from the clarity of the innovation vision and moving to a strategy and roadmap that drives innovation activities and finally to measuring it — almost like an innovation operation system that supports, controls and runs the entire program. This also entails an appetite and bandwidth to experiment rapidly and fail fast, team collaboration and most importantly, a culture of innovation. Show-stopping challenges to both creativity and operationalizing innovation appear around every corner, executives tell us.

When asked to rank challenges holding back their organization's innovation efforts, executives cited a long list that included workforce capabilities and attitudes, inadequate technology, lack of management buy-in or reluctance to tip the status quo. These obstacles seem to hinder innovation initiatives for all organizations, no matter where they rank on the innovation maturity spectrum.

Challenges are universal, even across more innovative organizations



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Five strategies to overcome innovation challenges

Where can organizations go from here?

In this section, we explore in greater detail what stymies innovation and how organizations can overcome these challenges. Based on our research, we recommend five business strategies that organizations can use to overcome challenges and harness innovation to fuel their growth engine and drive value and high performance.

- 1. Modernize your business.** To perpetually evolve and modernize the existing IT architecture, focus on reducing your tech debt and preparing for innovation by adding emerging technologies to the core operating model. At the same time, you should modernize processes and the workforce so that organizational strategy aligns with technology and innovation goals.
- 2. Leverage trusted data for a competitive advantage.** To build trust in your data, start by establishing a modern data strategy, then simplify your data landscape. Strengthen data confidence with comprehensive data literacy and change management programs and also be sure to address data talent.
- 3. Prioritize human-centric customer experiences.** To provide a rich and engaging digital experience, it's critical that you humanize, personalize and prioritize every customer touchpoint — and continue to evolve the engagement. Remove friction, invest in reskilling and leverage accurate real-time data.
- 4. Reskill and upskill your workforce.** To help employees feel fulfilled in their roles, provide the training, mentorship and career progression paths they need, and the time required to engage. You also need to give them the latitude to work on projects that interest them.
- 5. Cultivate a culture of innovation.** To build an organization that's more agile, collaborative and iterative, instill a "digital mindset" culture and act as an agent for employees, keeping their best interests at heart while nurturing positive energy. An innovative mindset must be organically driven throughout your company and championed by leadership.



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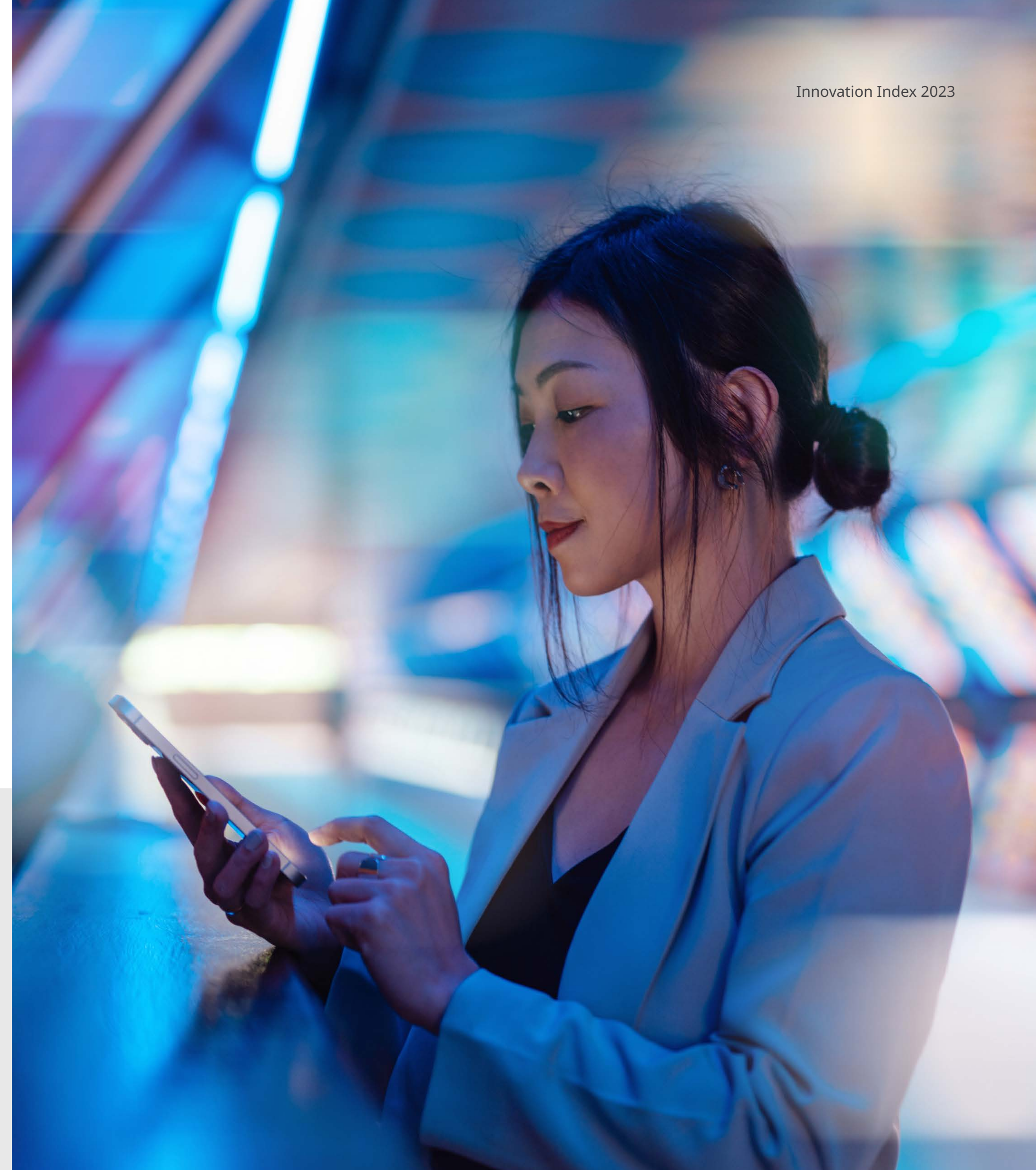
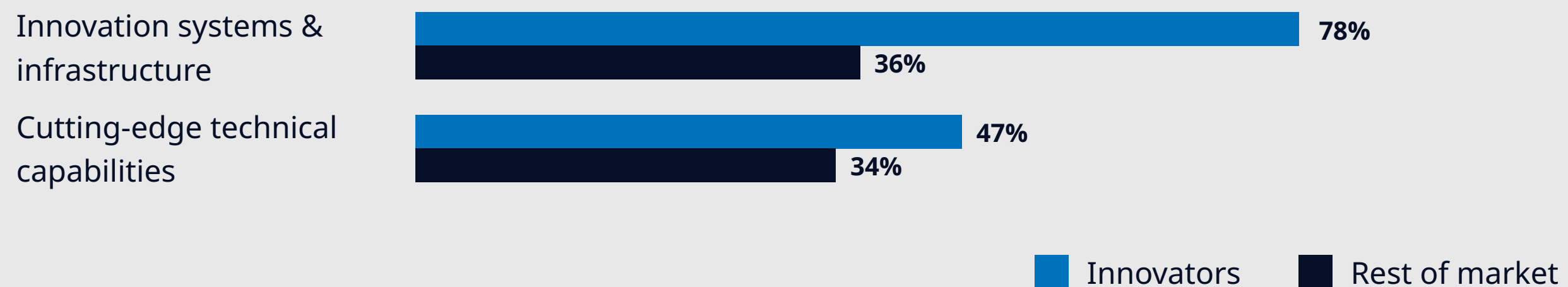
Modernize your business

Digital transformation is a continuous modernization process, not a single event. It requires modernizing your technology and your ways of working too — optimizing how your people implement and utilize new processes, technology and systems to perform optimally.

The industry has been talking modernization for more than a decade, but as high as 86% of respondents continue to be challenged with outdated technology. One lesson learned from the Innovator cohort is that technology creates its own value. Innovators are advanced at innovation systems and infrastructure and cutting-edge technical capabilities, versus the rest of the market, and can grow. Nitin Bajaj, Vice President, Digital Offerings at NTT DATA explains, “Most organizations today are unable to ride the wave of cutting-edge technologies, including generative AI technologies, digital humans, metaverse and quantum simulations, because of outdated systems and practices. Apart from inhibiting them, it also has an impact on their long-term trajectory of modernization.”

Our survey shows that Innovators are a cut above the rest of the market in systems and cutting-edge capabilities:

Innovators are “advanced” at innovation systems & infrastructure and cutting-edge technical capabilities vs. the rest of the market.



Five strategies to overcome innovation challenges

Modernize your business

Outdated IT infrastructure, on the other hand, also hinders effective use of data (35%), slows workforce collaboration, and derails customer (32%) and employee (31%) experiences. In our survey, only 44% of executives said they have integrated new technologies into processes to prepare for global change, and they blame lack of resources, time and security concerns for not being able to modernize their technology.

Here's how organizations can continue their digital transformation and modernization process to improve business resiliency, be more agile and move more quickly:

- **Modernize perpetually.** Continuous modernization is about taking iterative steps and progressively evolving the existing IT architecture, adding emerging technologies to the core operating model, and modernizing processes and the workforce. Such an approach also allows business leaders to better align organizational strategy with their goals.
- **Reduce tech debt.** To prevent financial debt from compounding, customers usually start by tackling the highest interest rates first. Similarly, organizations can reduce technical debt by seeking out those technologies with limitations that pose the greatest threat, are time-consuming and expensive to maintain or drag down performance and modernize them first. In our survey, 73% of Innovators, versus 55% of the rest of the market, have modernized their tech stack.
- **Adopt modern technologies.** Technology is slowly but surely becoming core to organizations. But unless organizations have a modern IT environment, they can't adopt these new technologies.



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“Rapid technological advances are fueling business growth faster than ever before. But organizations cannot adopt these technologies unless they’re modernizing — and more importantly, modernizing continuously. It’s a win-win for your digital agenda: Continuous modernization reduces technical debt while helping organizations build resilience and innovation capabilities.”

— Nitin Bajaj, VP, Digital Offerings, NTT DATA



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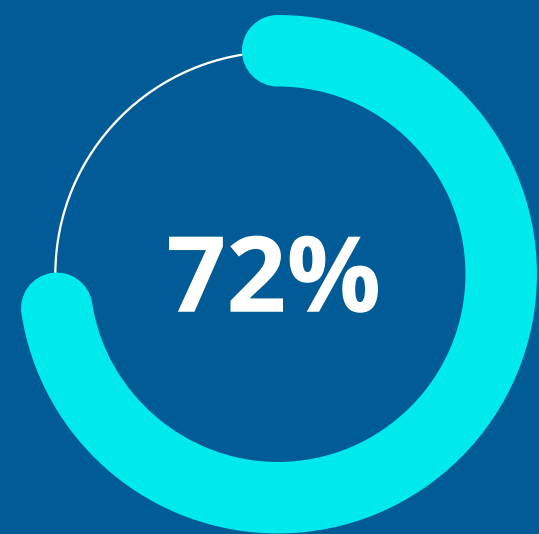
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Leverage trusted data for a competitive advantage

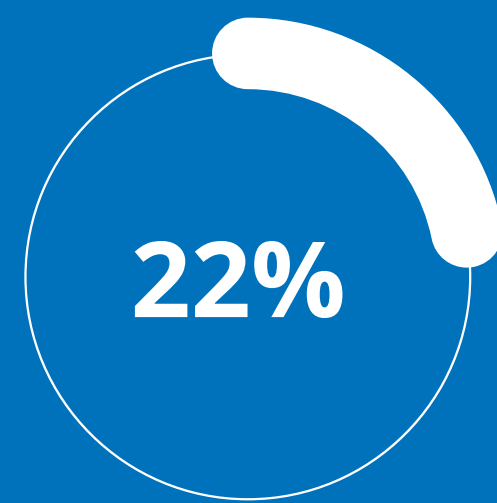
Responsibly managed and secured data can be your company's biggest asset. However, standing in the way of success for most companies — given the tremendous volume of data being processed daily across an organization — is harnessing the data, then understanding and leveraging it. And while 54% of those surveyed in this year's Innovation Index responded that they use their data to discover insights and inform decision-making, a staggering four in five said they don't trust their data (78%) and don't use data as a strategic asset (72%). These all-too-common challenges are compounded by a lack of technology to analyze data and, more significantly, a

shortage of data talent. The lack of skilled resources — employees who can engineer and analyze data — emerged as the biggest barrier to data use. Worse, this deficit has risen almost three-fold in the last two years, from 16% in 2021 to 43% this year. The demand for data scientists is growing rapidly and the U.S. Bureau of Labor Statistics estimated that the employment rate for data scientists will grow by 36% from 2021 to 2031.² Not only can data scientists pry stories from what the data is saying, they can also sniff out what the data isn't telling them or things organizations don't know yet.

Still don't use data as a strategic asset



Innovation depends on technologies like predictive analytics & (soon) generative AI, but...

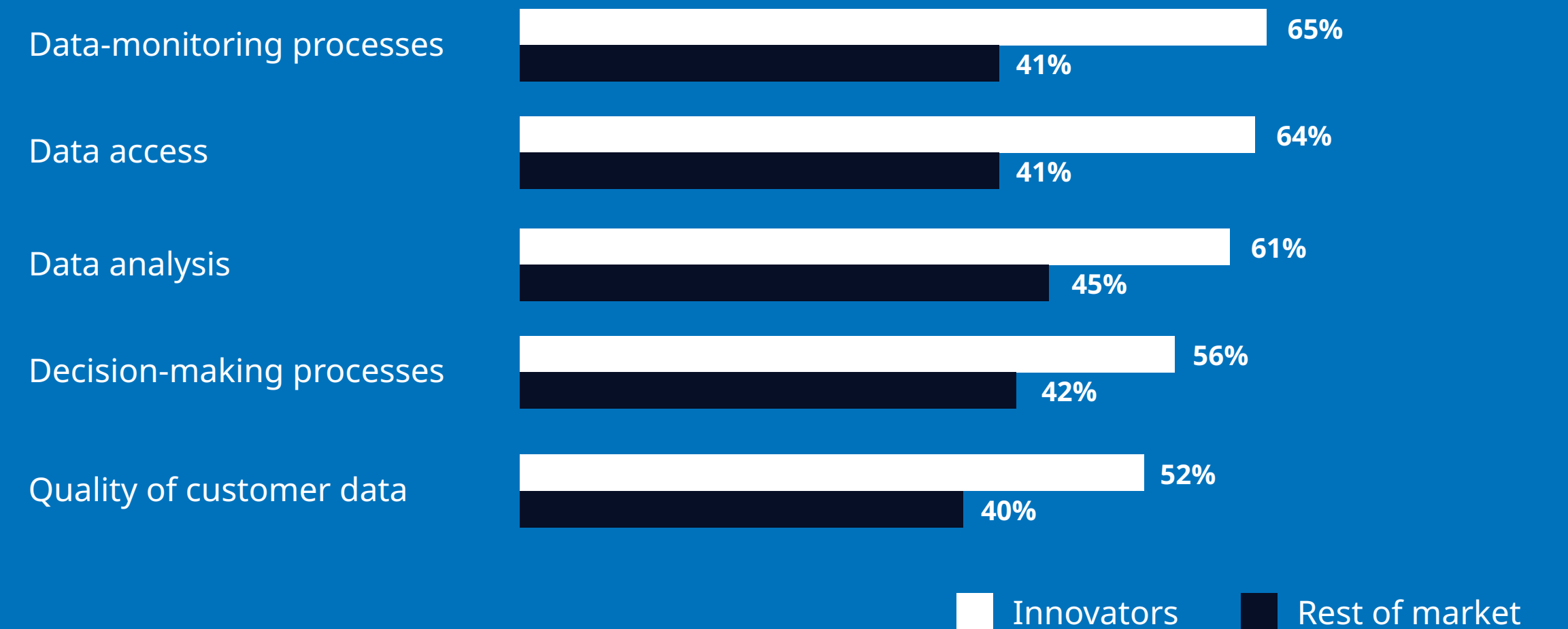


of organizations trust their own data



more than half of executives don't make managing data a high investment priority

Innovators are more advanced in their ability to be data driven



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Leverage trusted data for a competitive advantage

A U.S.-based manufacturer struggled to produce the business insights it needed after a SAP implementation because it couldn't integrate data and create a single source of truth.³ The situation created enterprise-wide redundancies, inefficiencies and performance issues. How did the company turn it around? "Just a year ago, our client couldn't imagine a reality where they had easy access to the data they needed — from SAP and third-party sources — to support their business, let alone accurate and insightful reporting at their fingertips," explains Andrew Wells, Data & Analytics Practice Lead for NTT DATA and CEO of Aspirent, an NTT DATA company, adding, "But thanks to a refreshed data and analytics strategy, the client can ingest and analyze data faster, easier and with greater accuracy and impact."

Here's how organizations can begin to build trust in their data and leverage it for competitive advantage:

- **Build a modern data strategy.** Create a scalable data platform, invest in visualization tools that empower end users with data insights, and ensure your data and analytics strategy delivers on its promise. It's also important to establish a robust data governance program to operationalize data policies and standards.
- **Simplify the data landscape.** Cleanse the data, define key metrics and streamline data sources; then make sure it resides in a single place and is easily accessible to multiple parties. Having a single source of truth for every metric gets rid of data mismatches and builds trust with business leaders and end users.
- **Strengthen data confidence.** Create comprehensive data literacy and change management programs that start early and persist beyond rollout. Increase further confidence in analytics predictions by building models that are interpretable by the larger enterprise and its business end users.
- **Address data talent.** Leverage advanced analytics to predict attrition and court candidates with highly targeted marketing efforts. Don't overlook existing talent that can be upskilled. And rely on services partners for expertise you're unable to hire.



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“Leaders ask us all the time, ‘How do I start gaining control over my data?’ It comes down to really understanding the business goals of the company. Without that, it’s hard to map out a data strategy that aligns with your vision. We work really hard to help leaders connect the dots, or data in this case, to provide a roadmap that can help a company fast track critical improvements in data quality, analytics and user trust.”

— **Andrew Wells**, Data & Analytics Practice Lead, NTT DATA, & CEO of Aspirent, an NTT DATA company



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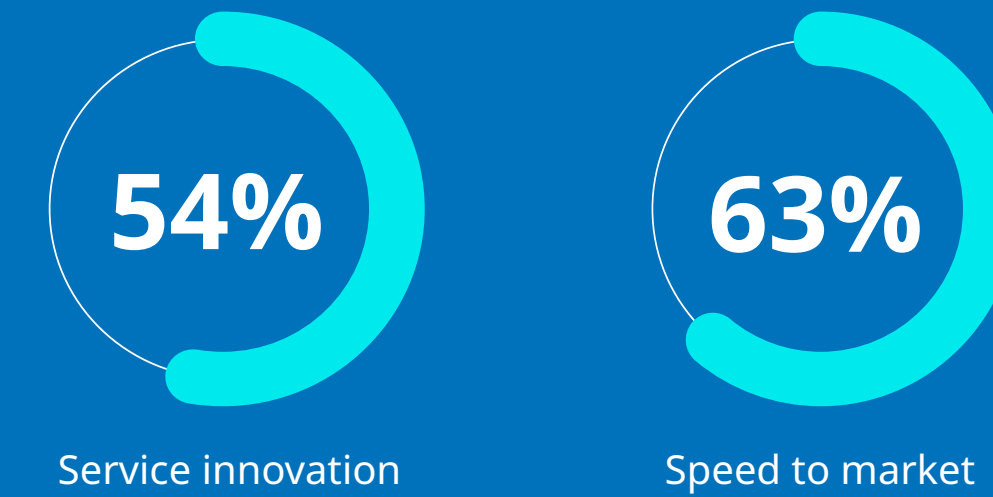
Prioritize human-centric customer experiences



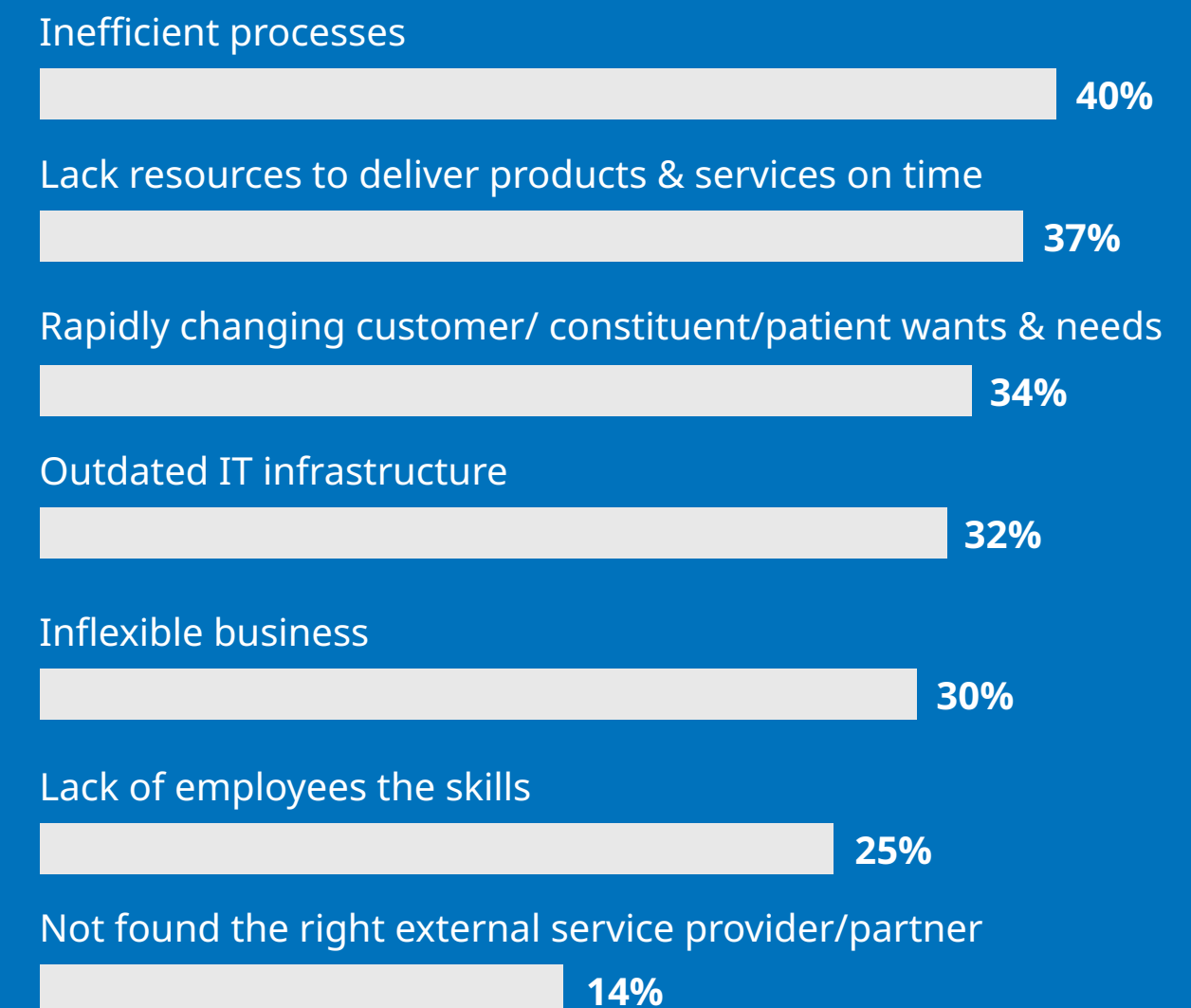
Improving customer experience (CX) by 1 point led to more than \$1 billion in additional revenue for a mass-market auto manufacturer, says Forrester; improving CX has the potential to drive significant business growth and tangible revenue.⁴ On the other hand, by neglecting the customer journey’s impact on the bottom line, some companies reported losses in the billions because they failed to see the real value of a seamless digital experience.

But poor customer experiences persist due to legacy IT, fragmented teams, and outdated or ineffective methodologies. Although business leaders see the value of enhancing experience, according to this year’s Index, inefficient processes (40%), lack of resources (37%) and ever-changing customer needs (34%) are the top three challenges getting in the way of CX modernization efforts. Organizations must also prioritize and put tremendous value on attracting and retaining the right people, investing in the necessary resources and training their existing workforce to provide a more human-centric customer experience.

Respondents rated service innovation and speed to market as average and below average:



Customer experience is key to growth, but organizations cite the following challenges



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Prioritize human-centric customer experiences

Despite challenges, organizations are prioritizing the customer’s digital experience. According to the survey, 50% of respondents indicated that they’re making investments in modernization efforts, specifically leveraging technology for real-time engagements.

Here are key steps organizations can adopt to provide rich and engaging digital experiences:

- **Focus on the customer’s needs.** The best way that organizations can improve digital experiences is by prioritizing customers over products. This means frequently talking with them to understand their needs and ensuring that what you create meets those needs.
- **Personalize the digital experience with IT modernization.** Organizations with modern and agile IT can take advantage of the latest technologies, including the use of AI and machine learning (ML) to automate, improve and learn. Leveraging advanced technologies can also provide opportunities to personalize engagements with customers, elevating the overall experience.
- **Hire and train the right resources.** Creating good customer experiences takes expertise in human-centered design; it’s not simply about making things look pretty. Employing the right resources or partnering with the right agency can make or break how successful your efforts will be. And since these experiences are created by a team of people, training them to lead with empathy helps ensure everyone puts the customer first.
- **Remove friction.** Organizations can create frictionless experiences by modernizing their architecture, streamlining digital and physical experiences to ensure multichannel consistency, and incorporating a continuous feedback mechanism from the customer.
- **Repetition is key.** Providing a good user experience isn’t an exercise done once every few years. It’s an ever-evolving feedback loop that requires constant engagement with your customers to address their changing needs and ensure they’re being met.



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“Improving customer experiences is a continuous process. You should always be talking to your customers to understand what they need and validate you’re meeting those needs. We see many organizations create artifacts like personas and journey maps to help understand their customers, which is great. But it’s just a single point in time. They need to be living documents, not something forgotten on a shelf. They should evolve as your understanding of your customers grows. Revisit them. Update them. Use them to inform your strategies and spur continuous innovation across every touchpoint of the customer experience.”

— **Tammy Soares**, President of Launch, NTT DATA

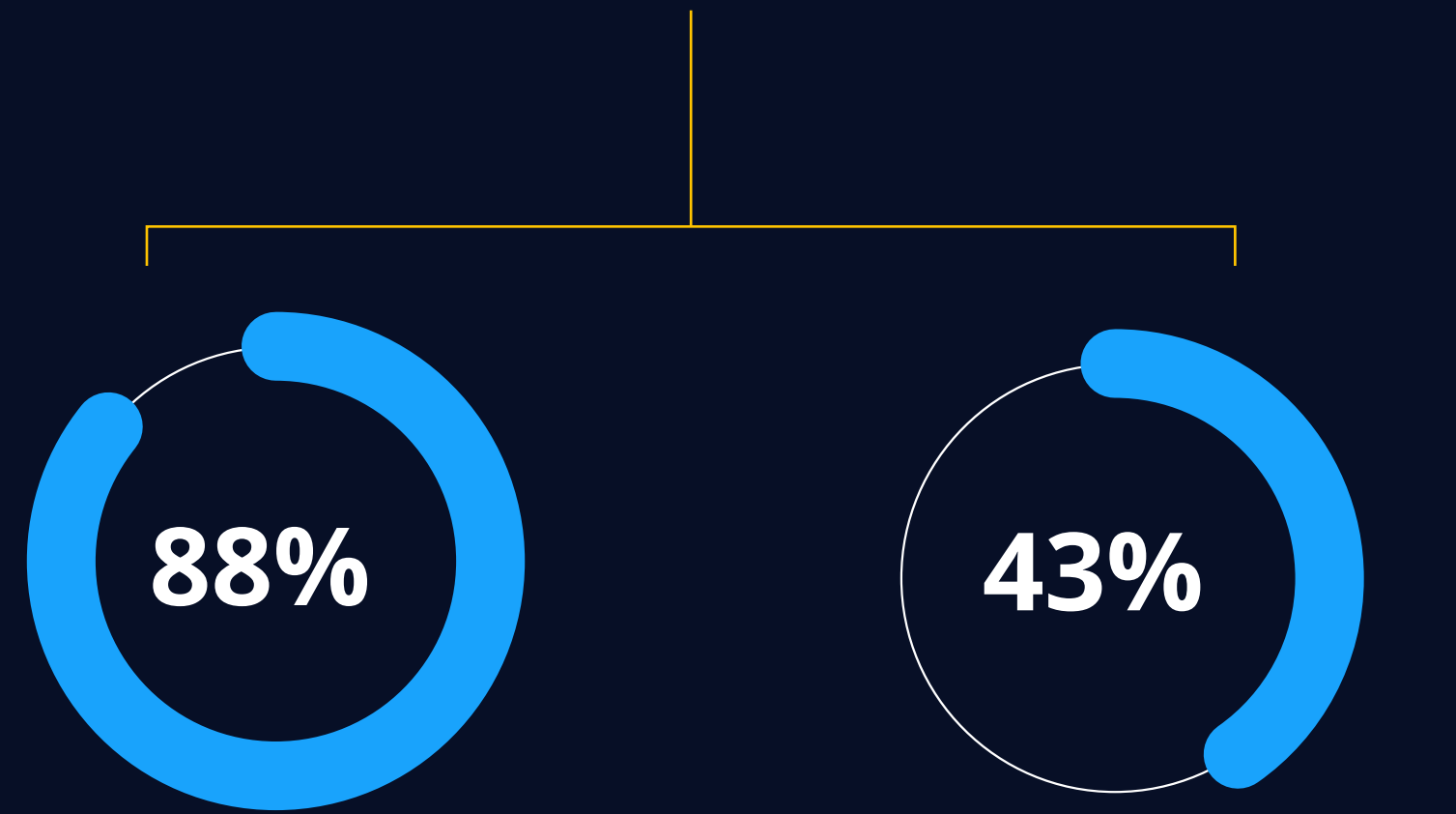


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Reskill and upskill your workforce

Organizations need top-shelf talent with the skills to innovate. However, the number one reported challenge for both innovation and data capabilities is lack of employee skills. In the survey, 88% of organizations said lack of employee skills holds back innovation efforts. And 43% said lack of employees with needed data/analysis skills is their biggest challenge to using their data.

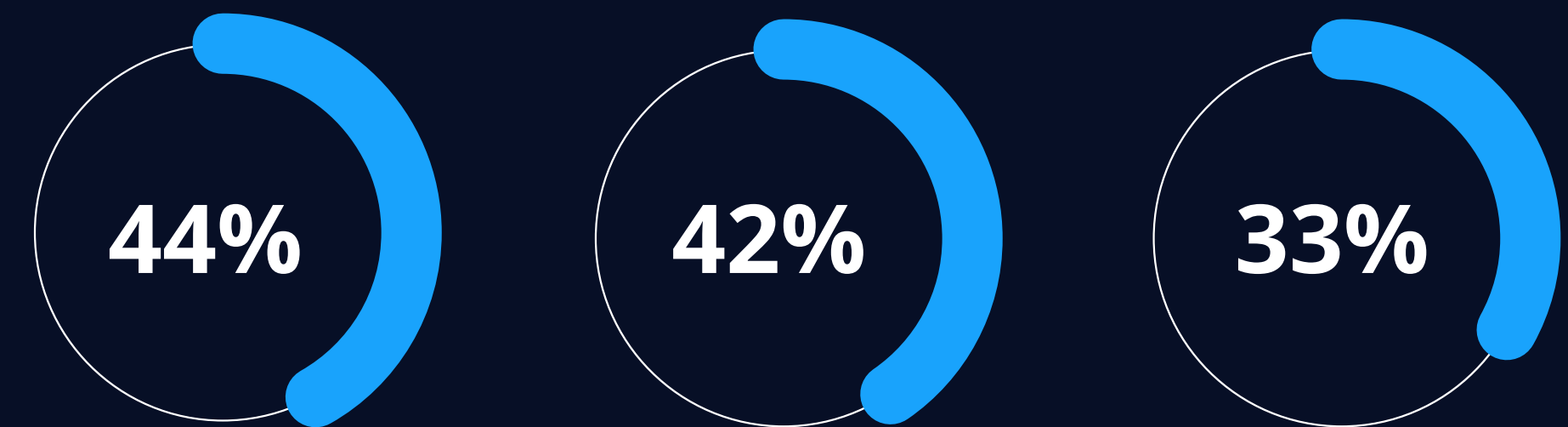
With the current half-life of technology skills under five years, organizations will need to invest time and resources to ensure they have the capabilities to innovate. One challenge to this is how quickly skills and roles are evolving. Also, innovation requires more than just technical skills. Organizations should invest in ethics, philosophy, human behavior, communication and leadership skills. Skills that have been underinvested in recent years. Our survey also shows that organizations aren't investing enough to build data capabilities to better understand and support their workforce. Just 44% of organizations are reskilling existing resources, 42% are enhancing the extended workforce through contractors and service providers, and 33% are recruiting new employees.



(up from 75% last year) of organizations continue to say lack of employee skills holds back innovation efforts

of organizations (almost 3x compared to 2021) say lack of employees with needed data/analysis skills is their biggest challenge for using their data

Organizations underinvest to build data capabilities for their workforce



Reskilling existing resources

Enhancing the extended workforce through contractors & service providers

Recruiting new employees



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Reskill and upskill your workforce

Innovation needs fresh ideas and bright minds and relies on a skilled workforce to operationalize it and keep it humming. That's why organizations need to prioritize talent acquisition, education and training across a broad set of skills. It also requires building resilience with revised organizational structures to allow for smooth adaptability in the face of evolving conditions. Instead of only focusing on technical resilience under the umbrella of business continuity plans and redundancy and backup systems, enterprises should give equal care to creating organizational resilience — with flexible structures and skill sets.

It's also important to provide employees with time to focus on work that aligns with their passions and aid them in maintaining a proper work-life balance to support their mental health and well-being. According to our survey, 43% of executives focused on mentorship programs and enabling employees to determine the type of work they'd like to do versus prescribed paths (42%). This holistic approach ensures that organizations remain innovative, adaptable and resilient in the face of both technological and workforce-related disruptions.

Here's how organizations can create a strong culture:

- Allow employees to determine the type of work they'd like to do versus following prescriptive career paths.
- Develop cross-functional mentorship programs to enable employees to build strong internal networks and boost knowledge-sharing across the business or team.
- Create career progression paths that are more "lattice-like" than "ladder-like," ensuring cross-pollination of skills and ideas and fueling innovation.
- Enable employee choice in training.
- Support and fund skill development and cross-training, including schedule flexibility, and make time for development an organization-wide priority.



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“Only looking to the marketplace to acquire needed skills is short-sighted. It’s more economical and creates better long-term outcomes to balance internal prioritization of skill development with hiring from outside. But make no mistake; all of us need to be learning new skills all the time. Like acclaimed futurist Alvin Toffler observes, ‘The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn.’”

— **Kim Curley**, VP, People & Organization Consulting, NTT DATA



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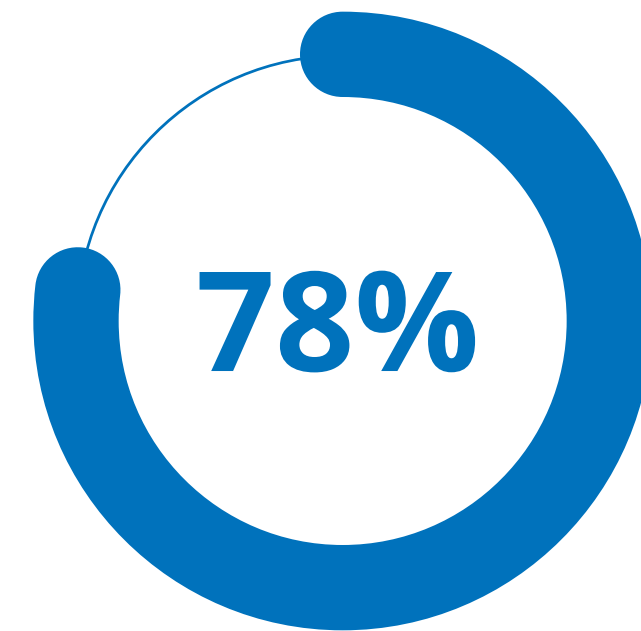
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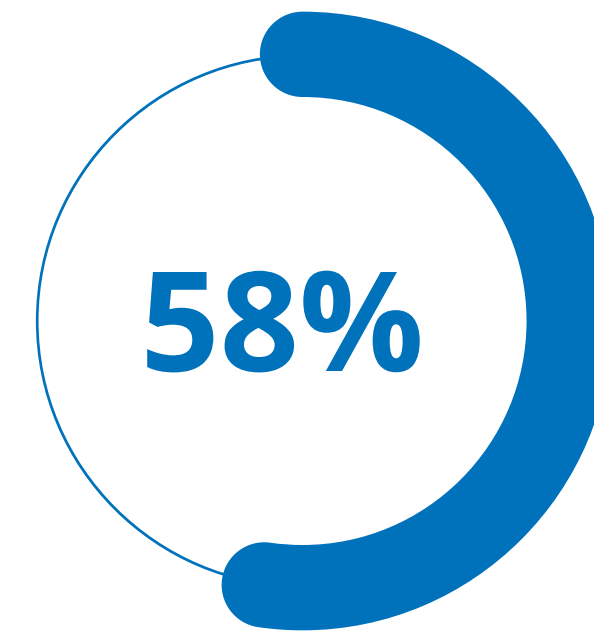
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Cultivate a culture of innovation

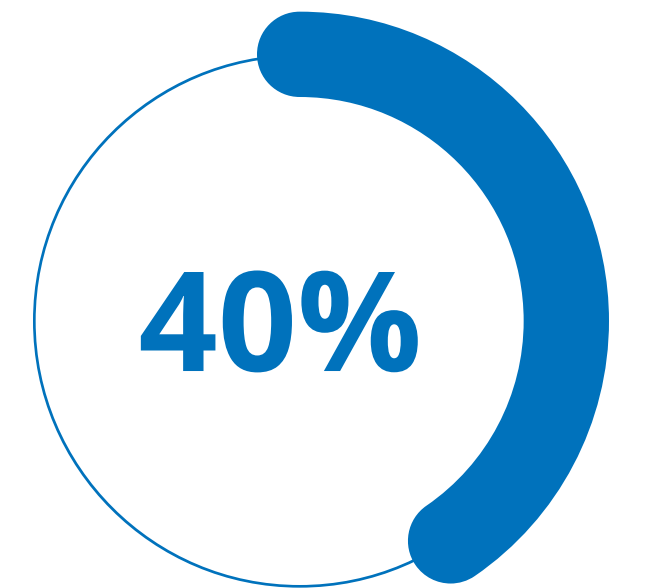
Our study confirms management guru Peter Drucker’s famous quotation, “Culture eats strategy for breakfast”:



78% of organizations said poor organizational culture holds back their innovation



58% rated the level of their organization’s readiness in culture as “weak” or “mixed”



40% reported their culture isn’t conducive to fostering enriching employee experiences and retaining talent

Without a strong and capable workforce, an organization will be destroyed by the market or devoured by the competition. It’s no secret that an innovation-rich culture is a prerequisite for innovation success. Among the Innovators in our survey, 91% said innovation in their organization is primarily driven by culture. This entails strong leadership, accountability from all employees and cross-functional collaboration.

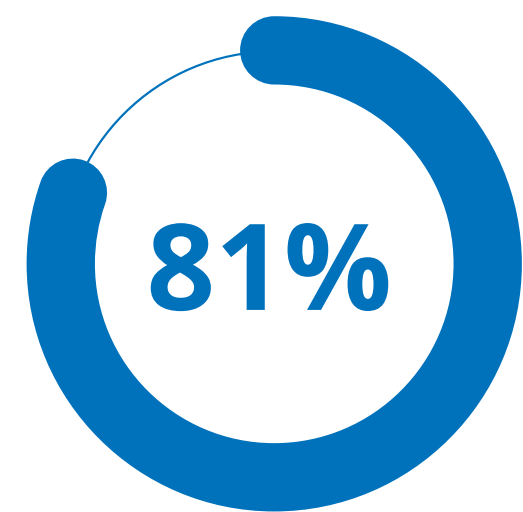


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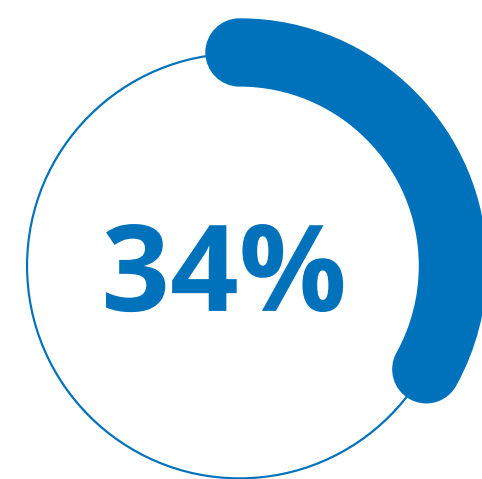
Cultivate a culture of innovation

One revealing piece of data from the survey is that chief innovation officers (CINOs) make a huge difference when it comes to fostering an innovation culture. Sixty-six percent of Innovators and 53% of overall survey respondents have a CINO or equivalent whose responsibility is to ensure the organization's time, resources and focus keep innovation at the forefront and aligned to overall business strategy. They also ensure that innovation is supported across the organization with structured processes that bring ideas to life. With a CINO, positive financial results seem to follow.

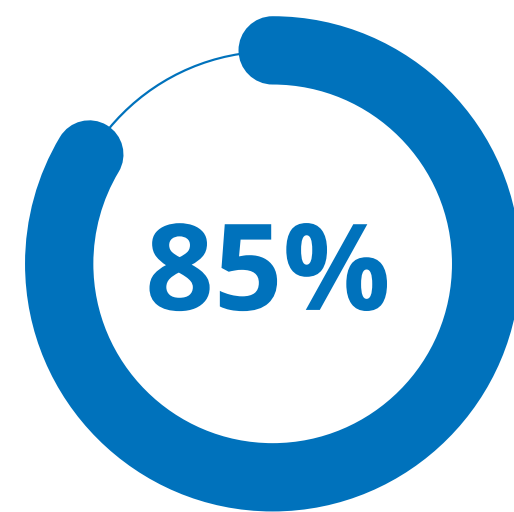
Over the previous two years, among the 53% of companies with CINOs:



81% increased their net profit margin



34% exceeded ROI expectations from innovation efforts



85% increased their annual revenue growth

What's more: 56% of Innovators, versus 45% of the rest of the market, employ a new way of working, which is to maintain a digital mindset culture. Innovators see themselves as more resilient, agile, collaborative, iterative, less hierarchical and quicker to market.

63% say it's 'totally true' that their innovation workforce is highly engaged



68% say it's 'totally true' that innovation is a team effort involving cross-department collaboration



89% report their innovation engagement is driven by their culture, not their leaders



56% maintain a 'digital mindset' culture (agile, collaborative, iterative)



Legend: ■ Innovators ■ Rest of market



Five strategies to overcome innovation challenges

Cultivate a culture of innovation

Organizational culture is built from the ground up by individuals and their actions, but it's made possible by the decisions made at the top. An innovation focus must be part of the culture, organically driven by those throughout the company and championed by its leadership. Leaders in growth-minded companies rated their employees and organizations as more innovative, collaborative and dedicated to learning and growing than those with fixed mindsets. They're also more agile, collaborative, iterative and resilient as changes present themselves that may disrupt the "traditional" way of operating.

Barry Shurkey, NTT DATA's Chief Information Officer, identifies three specific qualities to create a strong culture that supports innovation:⁵

- **Be a Jerry Maguire.** Leaders today need to channel their inner Jerry Maguire and act as an agent for their employees, keeping their best interests at heart while creating positive energy and acting as a role model.
- **Hire energy givers.** If you can fill your team with energy givers and people who are hungry to learn, your team will be worth its weight in gold.
- **Make time for your team.** It's critical for leaders to actively build and strengthen relationships with their team members, regardless of whether they're in the office regularly, sporadically or rarely.



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“Resilient companies adapt and respond to change and recover quickly from setbacks. Particularly today, these qualities are critical for organizations to succeed. Employees need a positive energy, a sense of purpose on the team, and they need to be eager to learn. They have to be excited about upskilling and growing; they need to be able to trust each other, work as a team and, of course, be open to change.”

— **Barry Shurkey**, CIO, NTT DATA



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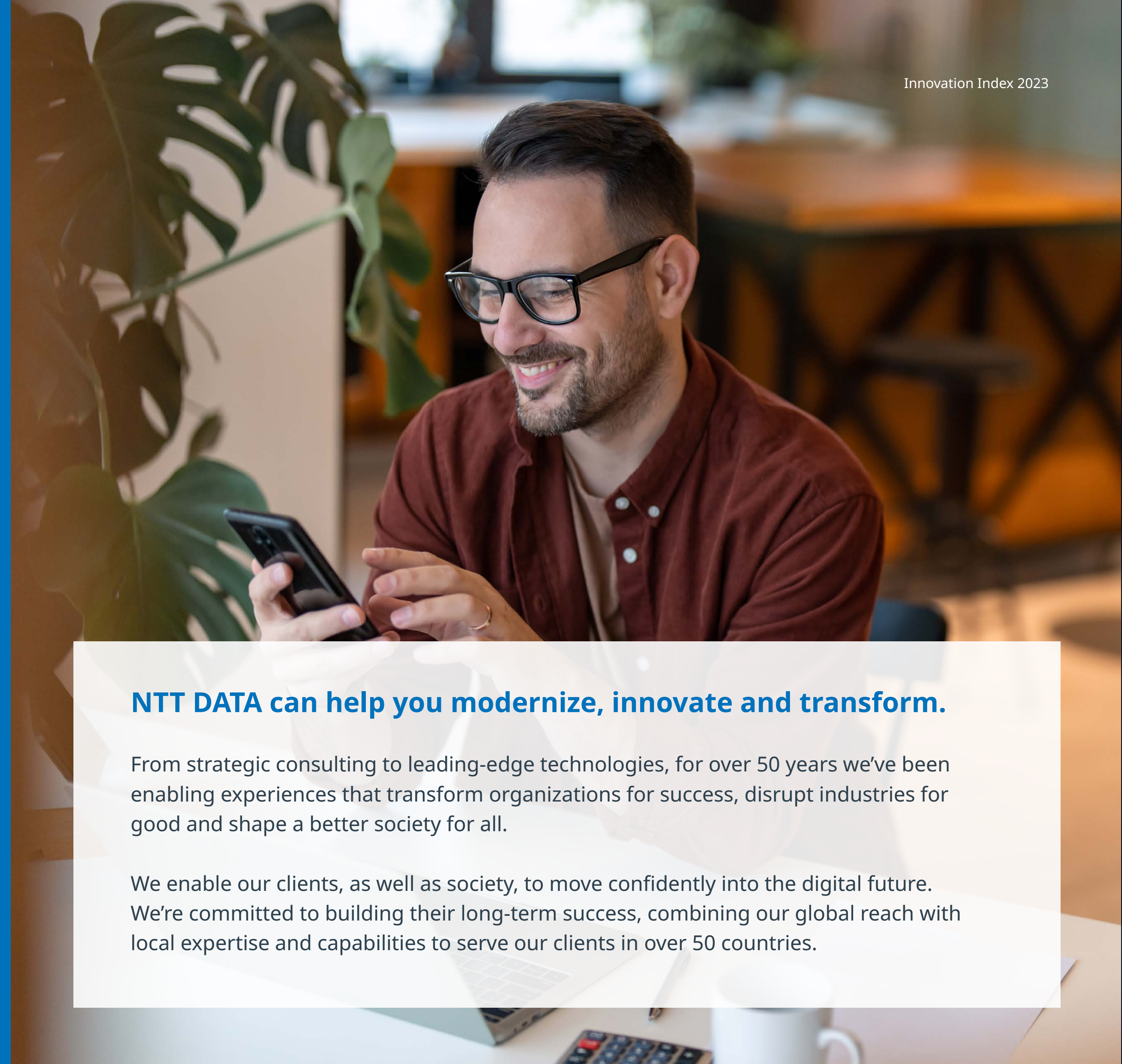


Innovate for value

To realize growth, value and high performance, organizations must support an innovative mindset focused on creating a human-centric customer experience grounded in a framework of trusted data.

Here are four stats you can't afford to ignore:

- Only 21% of our respondents said they're completely meeting their innovation goals. What does that mean for you? Innovation is central to helping organizations achieve and maintain a real competitive edge.
- 86% continue to be challenged with outdated technology, yet modern technology is core to real innovation. Imagine being high-performing and resilient; now is the time to start the modernization journey.
- 78% don't trust the data that's reported to make strategic decisions. What if everyone in the organization could view the same report and make impactful decisions? Confidence breeds success; it's time to move the needle on data.
- 88% said lack of employee skills holds back innovation efforts. Innovation needs fresh ideas and bright minds to keep it humming. What's keeping you from investing in your most important organizational asset?



NTT DATA can help you modernize, innovate and transform.

From strategic consulting to leading-edge technologies, for over 50 years we've been enabling experiences that transform organizations for success, disrupt industries for good and shape a better society for all.

We enable our clients, as well as society, to move confidently into the digital future. We're committed to building their long-term success, combining our global reach with local expertise and capabilities to serve our clients in over 50 countries.



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Tammy Soares, President
Launch, NTT DATA



Kim Curley, Vice President
People & Organization Consulting, NTT DATA



Andrew Wells, Data & Analytics Practice Lead
for NTT DATA, and CEO of Aspirent, an NTT DATA company

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