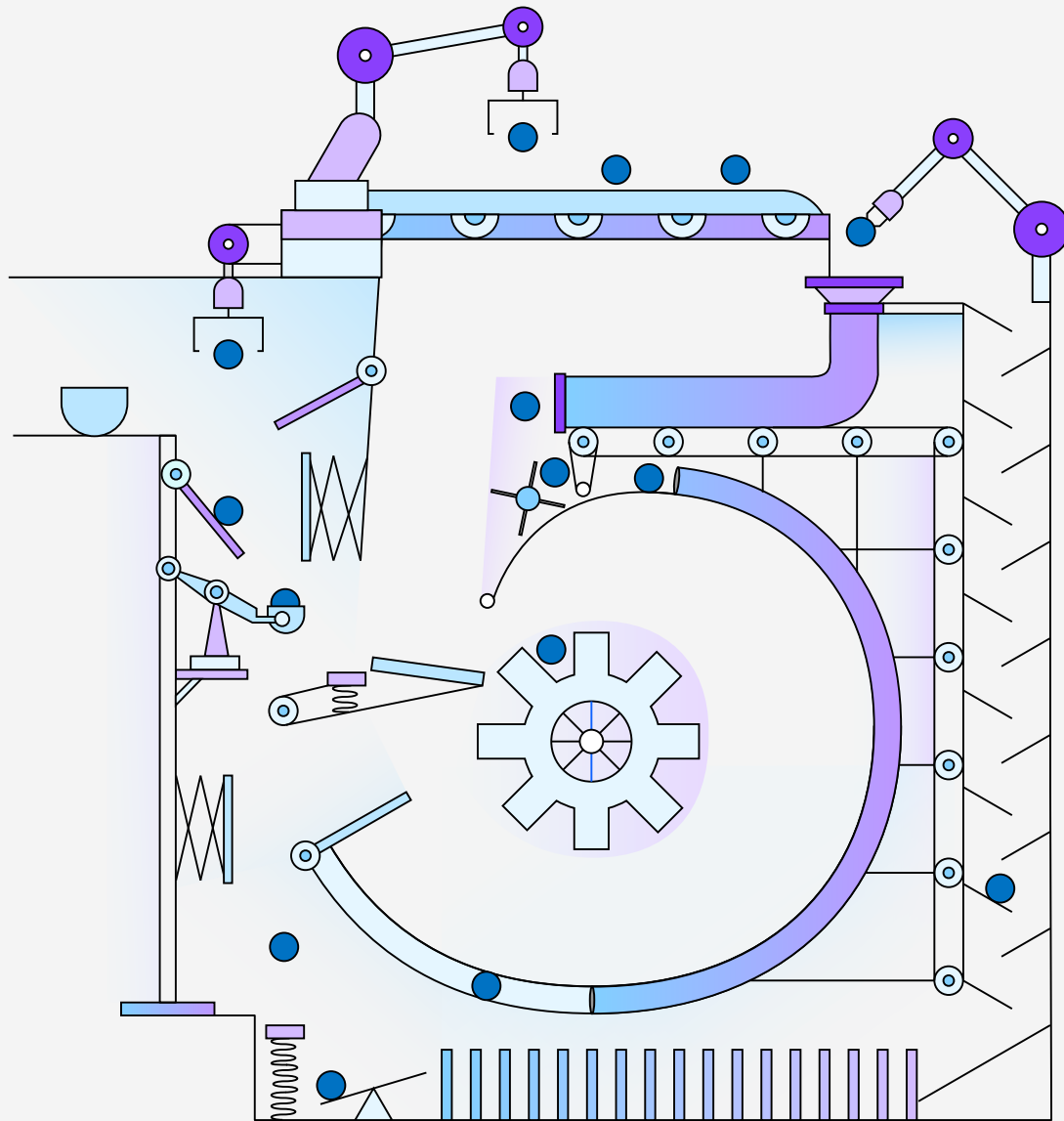# 5 Trends for 2025

Ignite innovation with people-powered AI

Introduction

# AI democratizes data—and redefines decision-making.

How can leaders empower people to innovate without putting the business at risk?

2024 was a year of letting go. As a combination of conflict and transformation threw old assumptions into doubt, leaders had to reassess their appetite for risk. They had to weigh the need for speed against the safety of proven processes—then change the habits that were holding them back.

Generative AI was at the center of this shift, introducing a world of new opportunities, as well as uncharted risks. Agentic AI, which refers to systems and programs that perform a variety of functions autonomously, can act on behalf of employees while they do other work. By giving AI agents specific permissions and rights, they can automate decision-making, problem-solving, and other tasks that go beyond the data the system's machine learning models were trained on in a way that most AI assistants don't.

And as digital labor evolves, it puts the power of transformation firmly in employee's hands.[1] It makes it possible for individuals to increase productivity and redefine workflows—and challenges preconceived notions about what it means to lead.
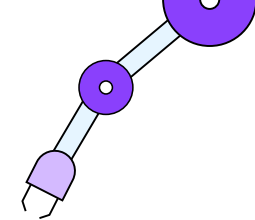
The fact is, leaders don't have time to vet every innovation. As agentic AI augments roles across the organization, they need to delegate more decisions to truly pick up the pace. Leaders still need to define the destination—and the rules of the road—but they must empower teams to rethink workflows and deploy AI agents in new ways to improve performance at scale.

In this environment, leaders are walking a tightrope between agility and security, striking a balance between resilience and risk. It's no easy feat. To learn how they're gaining ground, the IBM Institute for Business Value (IBM IBV), in partnership with Oxford Economics, surveyed 400 global leaders across 17 industries and six geographies in October and November 2024. We asked them about the challenges they must overcome to succeed in an AI-fueled competitive landscape, how they're preparing their people to drive change, and what opportunities they expect to accelerate progress most.

We paired these results with the insights we've gained from dozens of surveys, in-depth interviews, and client engagements conducted in 2024 to map out the trends that will reshape the AI roadmap in 2025 (see "Research methodology," page 5).

We found that leaders are still struggling to transform the business with their AI investments—but they believe they're on the cusp of a major breakthrough. In fact, 63% of executives say their AI portfolio will have a material financial impact on their organization in the next one to two years.

2024   2025

Experimenting   30%   6%

Scaling & Optimizing   44%   46%

Innovating   24%   44%
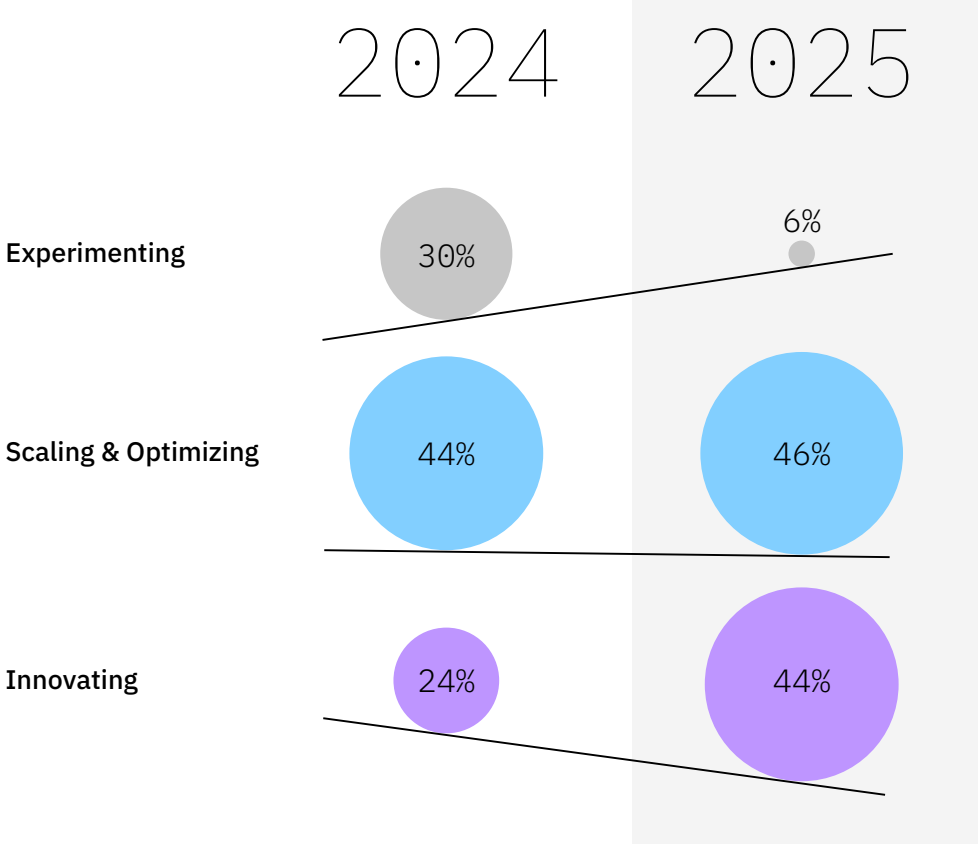
Source: 5 Trends for 2025 global pulse survey. Q: Which of the following best describes your organization's approach to adopting AI, today and next year?

Note: Sums don't equal 100% because "reevaluating" and "none of the above" were also potential responses.

To deliver on these expectations, organizations plan to push teams forward at a rapid clip. Today, 30% of executives say their organizations are primarily experimenting with AI, testing its use in low-risk, non-core functions to gain experience, build confidence, and identify potential pain points. Only 24% say they're innovating with AI to advance new opportunities and create new business models.

In 2025, leaders expect to see a major shift. 46% of executives say their organizations will be scaling AI, using it to optimize existing processes and systems, while 44% expect to use AI to innovate. Only 6% say their organizations will still be experimenting.

To turn that momentum into real business value, leaders will need to empower people to make the most of the technology at their fingertips. That means democratizing decision-making and giving people the tools and training they need to succeed. People are the secret ingredient to winning with AI—but they can't succeed without strategic reskilling, security guardrails, and decision support.

In the coming year, it's likely that some organizations will begin to set themselves apart. Will yours be one of them? Explore these five trends for 2025 to learn what leaders need to know to overcome the obstacles that lie ahead—and what they can do to gain a competitive edge.

1   Agentic AI will transform your business—but first you must reskill your people.

2   Despite efforts to slow its growth, technical debt continues to increase.

3   In the age of AI, location is everything.

4   The rapid pivot to AI has upended IT budgets, but self-funding is imminent.

5   AI product and service innovation is the #1 CEO goal, yet business models aren't keeping up.
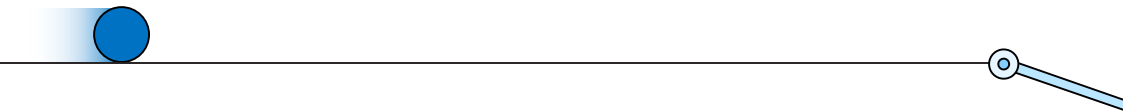
Research methodology

This study is part of the IBM IBV's "Five Trends" series, now in its sixth year, which offers strategic insights to help organizational leaders plan for what's next.

Based on comprehensive research conducted over the past **12 months**, the report draws on data from **55 surveys** covering hybrid cloud and AI, general business, finance and technology, and specific industries, including insights from more than **43,000 executives** and **4,000 consumers worldwide**. This portfolio of research was used to inform the trends we explored in a pulse survey conducted by the IBM IBV, in partnership with Oxford Economics.

We also surveyed **400 global leaders** across **17 industries** (including banking, government, and telecommunications) and six geographies (the US, the UK, Germany, India, Australia, and Singapore) in October and November 2024. Participants were asked a range of questions about forward-looking business and technology strategies in various formats (multiple choice, numerical, and Likert scale). Any datapoints not otherwise cited were sourced from this five trends for 2025 global pulse survey. Sample size was too small to support group comparisons within this set of participants.

Each edition of "Five Trends" highlights the key challenges and opportunities expected to drive significant business impact in the coming year. This year's report identifies the trends that will shape industries and organizations in 2025, providing actionable, research-backed insights—based on in-depth research and comprehensive client engagements—to help leaders navigate and thrive in an increasingly complex and dynamic environment.

Agentic AI will transform your business—but first you must reskill your people.

The future of work is being rewritten with AI. But many employees are unprepared for what comes next—and progress will stall if too many are left behind.
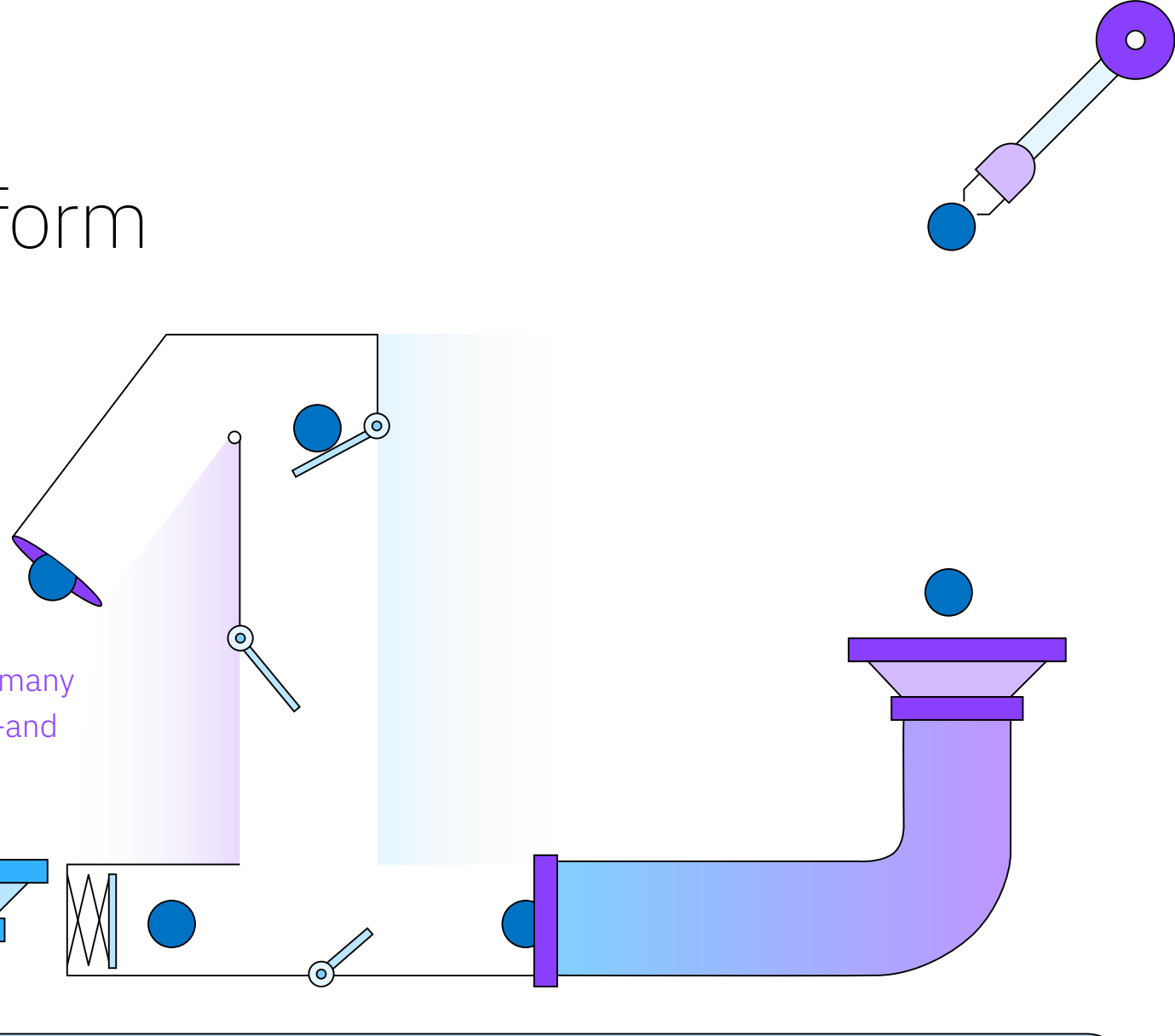
While roughly **5% of the global workforce** consistently needs to be reskilled each year, the rapid advancement of AI has sent this figure skyrocketing.
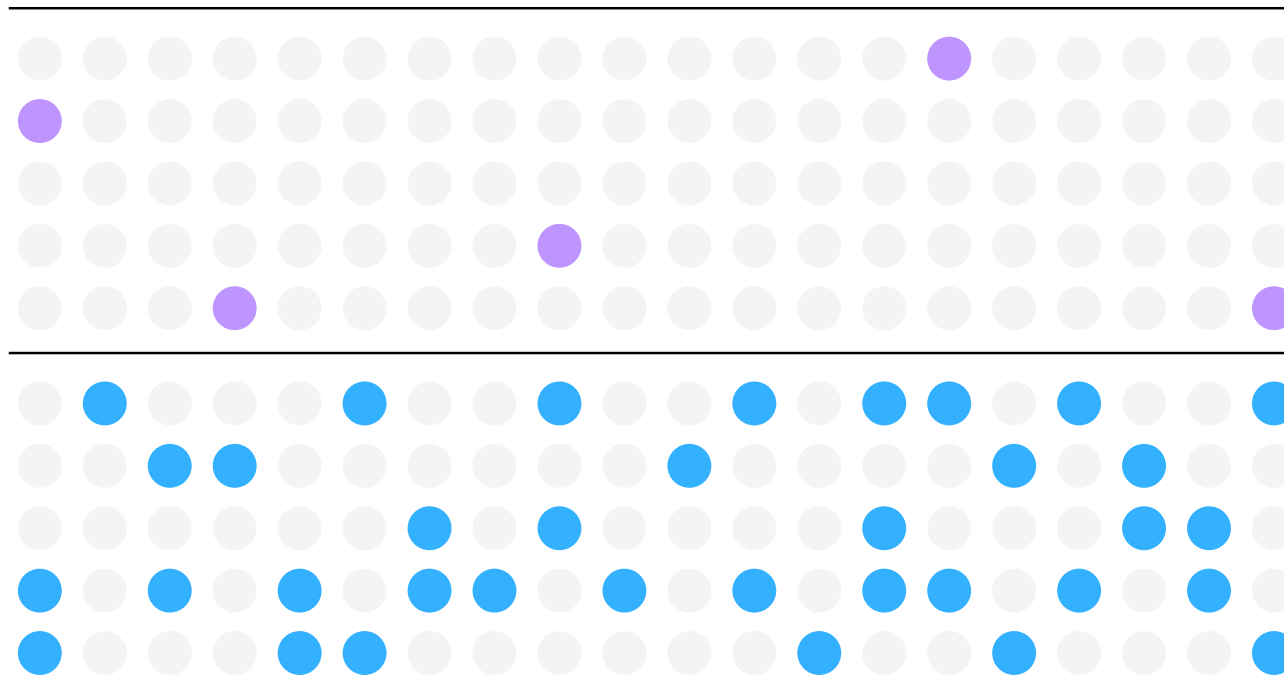
While roughly 5% of the global workforce consistently needs to be reskilled each year, the rapid evolution of AI has sent this figure skyrocketing. In 2024, global CEOs estimated that, on average, 35% of their workforce needed to be reskilled. That translates to more than a billion workers worldwide.[2]

What exactly is creating this chasm? The escalating need for true transformation. Instead of automating specific roles wholesale, organizations are pairing people with domain-specific AI agents to improve their performance. In fact, 87% of executives expect jobs to be augmented rather than replaced by generative AI.[3] This means, rather than learning a new skill or tool, workers must completely rethink how they do their jobs to make the most of gen AI.

In 2024, global CEOs estimated that, on average, **35% of their workforce** needed to be reskilled. That translates to more than a billion workers worldwide.

In this environment, 64% of CEOs say that succeeding with AI will depend more on people's adoption than the technology itself.[4] However, 64% say their organization must take advantage of technologies that change faster than people can adapt[5] —and 47% of executives say their people lack the knowledge and skills to effectively implement and scale AI across the enterprise.

Part of the problem is insufficient training. While executives say AI literacy is the most critical capability their workforce will need in 2026,[6] only 22% strongly agree that their organization has integrated AI knowledge, skills, and abilities into employee professional development plans. And less than half say their organization has implemented a formal change management program to enable the integration of AI assistants and agents into daily workflows.

That's a big issue, since agentic AI is quickly transforming the role of individual contributors. As simple AI assistants are supplemented by AI agents with more advanced capabilities, employees will need to manage entire teams of agents that are completing tasks autonomously—and learn how to work with chat-based supervisory AI agents that can help streamline this process.

This "third wave" of AI promises to transform workflows wholesale.[7] In fact, nine in 10 executives now say their organization's workflows will be digitized with intelligent automation and AI assistants by 2026—and 77% of executives believe gen AI will enable connected assets to make autonomous decisions by 2026.[8] Executives also report that the volume of decision-making by digital assistants will increase by 21% in the next two years due to generative AI.[9] This will have huge implications for operating models, as organizations must create new structures that give employees oversight over autonomous decision-making—and manage the new risks it creates.

It's a lot to work through, but 67% of CEOs say the potential productivity gains from automation are so great that they must accept significant risk to stay competitive.[10] What's more, 82% of executives agree that the benefits they expect from gen AI will exceed the potential risks.[11] But employees will need targeted training and skills development to deliver on this promise—and deliver the competitive advantage that executives expect.

Organizations must create new structures that give employees oversight over autonomous decision-making—and manage the new risks it creates.

What to do

1

Make AI literacy a must-have—and double down on agentic AI skills.
Launch comprehensive educational initiatives blended with hands-on projects aimed at rapidly advancing AI literacy and getting teams comfortable with agentic AI. Mandate AI skills training across all roles and create a culture where AI proficiency is non-negotiable to enable smarter collaboration and responsible integration of AI agents and assistants into everyday workflows.

2

Unlock your team's collective genius.
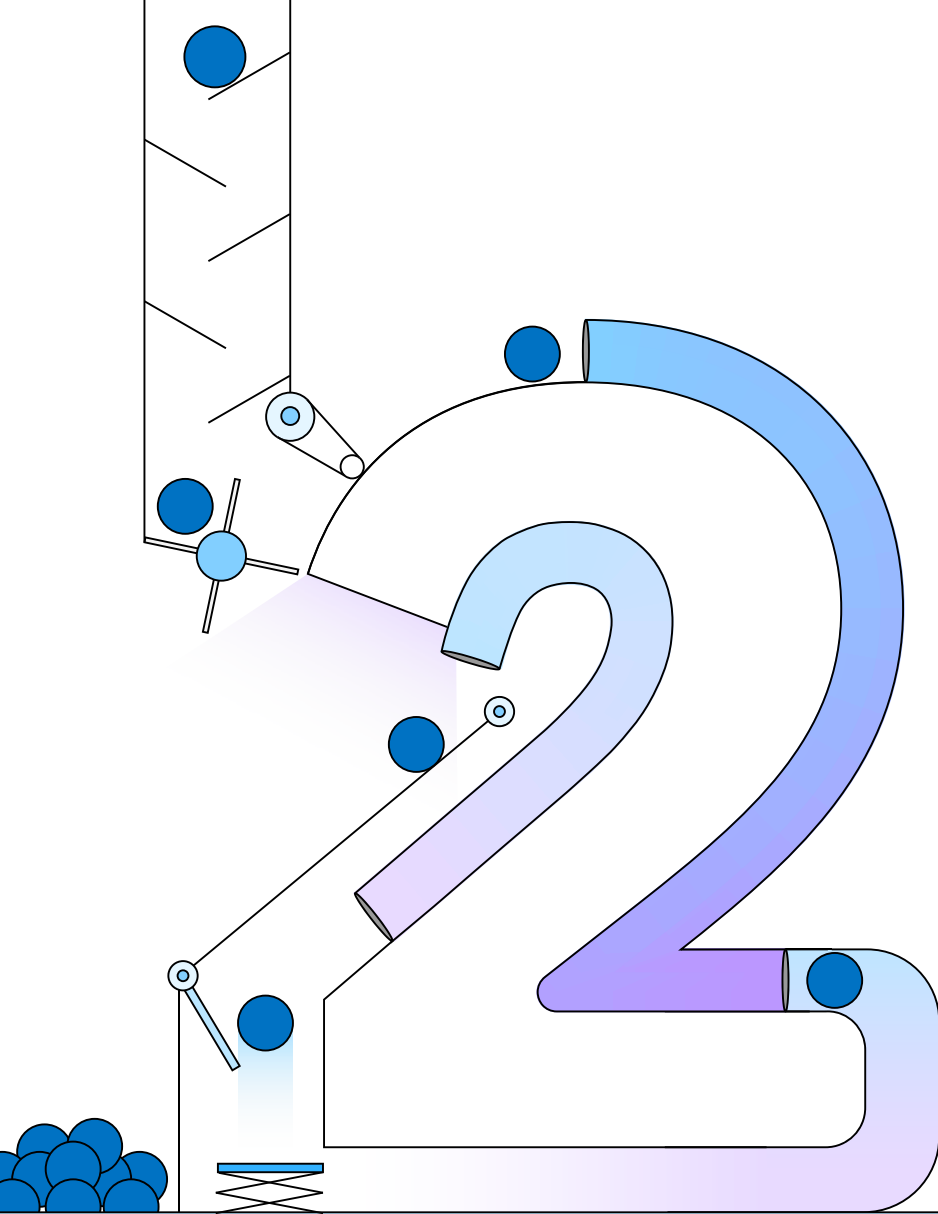Demolish siloed thinking and establish collaboration sandboxes where AI-enabled workflows can be rigorously tested and refined—encouraging people to get their hands dirty without fear of failure. Hold leaders from business units, IT, and HR jointly responsible for AI outcomes to underscore the strategic importance of enterprise-wide adoption. Make governance integral to collaborative innovation efforts and reimagine the operating model to integrate agentic AI effectively and responsibly.

3

Future-proof your workforce.
Establish new roles, such as process orchestrators and digital librarians, to manage how AI assistants, models, and governance guidelines are used and shared across the organization. Introduce checks and balances that provide oversight for autonomous decisions made by agentic AI. Regularly host hackathons that bring together diverse perspectives to conceptualize creative uses of AI assistants and agents. Establish performance- and readiness-based compensation and incentives that align with business goals and gen AI adoption priorities.

Despite efforts to slow its growth, technical debt continues to increase.

Time is money. And leaders are always looking for ways to save both. But the workarounds that accelerate transformation in the short term often create technical debt that limits long-term innovation and growth.

Technical debt refers to the long-term costs and inefficiencies caused by quick, suboptimal technical decisions made to expedite development or delivery. And the growing demand for digital products, services, and experiences is compounding this debt much faster than organizations can address it. As a result, 55% of executives now say technical debt is either a major obstacle or a real roadblock to achieving business goals.[12]

Think about the automotive industry. While the lifetime of a car could be 15 years or more, the digital experience in the driver's seat is often outdated within 18 months. If manufacturers don't design and install software in a way that can easily be updated as technology evolves, customer satisfaction will suffer.[13]

The same is true for enterprise IT. To deliver the innovations that customers, employees, and partners expect, organizations must build solutions within a modern architecture. That's because traditional systems don't tend to play well with next-gen apps, software, and infrastructure.

This is particularly relevant for generative AI and agentic AI. Organizations need robust infrastructure that can handle the data and computational requirements of AI to go from pilots to enterprise-wide solutions. Yet, while 77% of executives say they need to adopt gen AI quickly to keep up with competitors[14] —only 25% strongly agree that their organization's IT infrastructure can support scaling AI across the enterprise.

77%

of executives say they need to adopt gen AI quickly to keep up with competitors.

But only

25%

of executives strongly agree that their organization's IT infrastructure can support scaling AI across the enterprise.

Sources: The 2024 CEO Study: 6 hard truths CEOs must face. IBM Institute for Business Value; 5 Trends for 2025 global pulse survey.
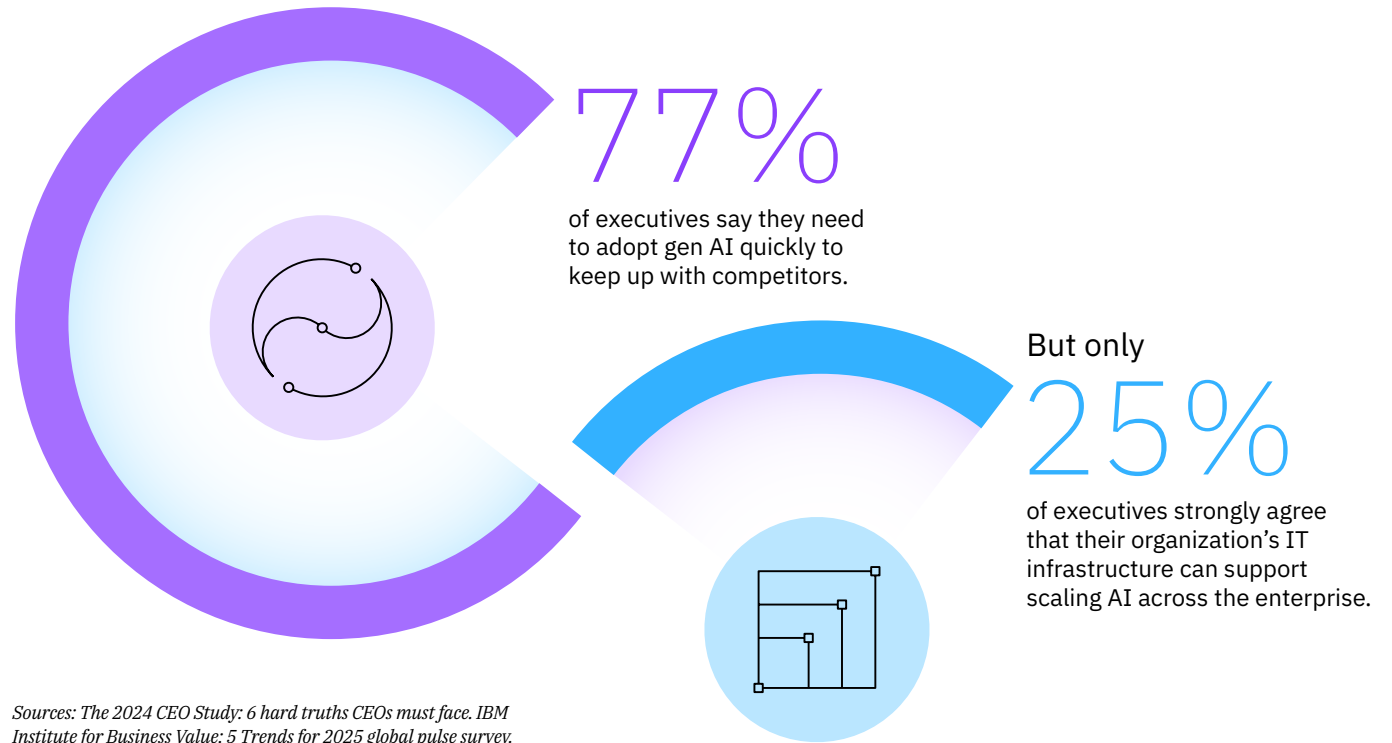
One of the biggest barriers is the quality, accessibility, and security of enterprise data. Training gen AI models with internal and proprietary data is critical to help organizations gain an edge with them. Yet, only 16% of tech leaders are confident that their current cloud and data capabilities can support gen AI,[15] and just 21% of executives strongly agree that their organization has the data it needs to scale AI across the enterprise.
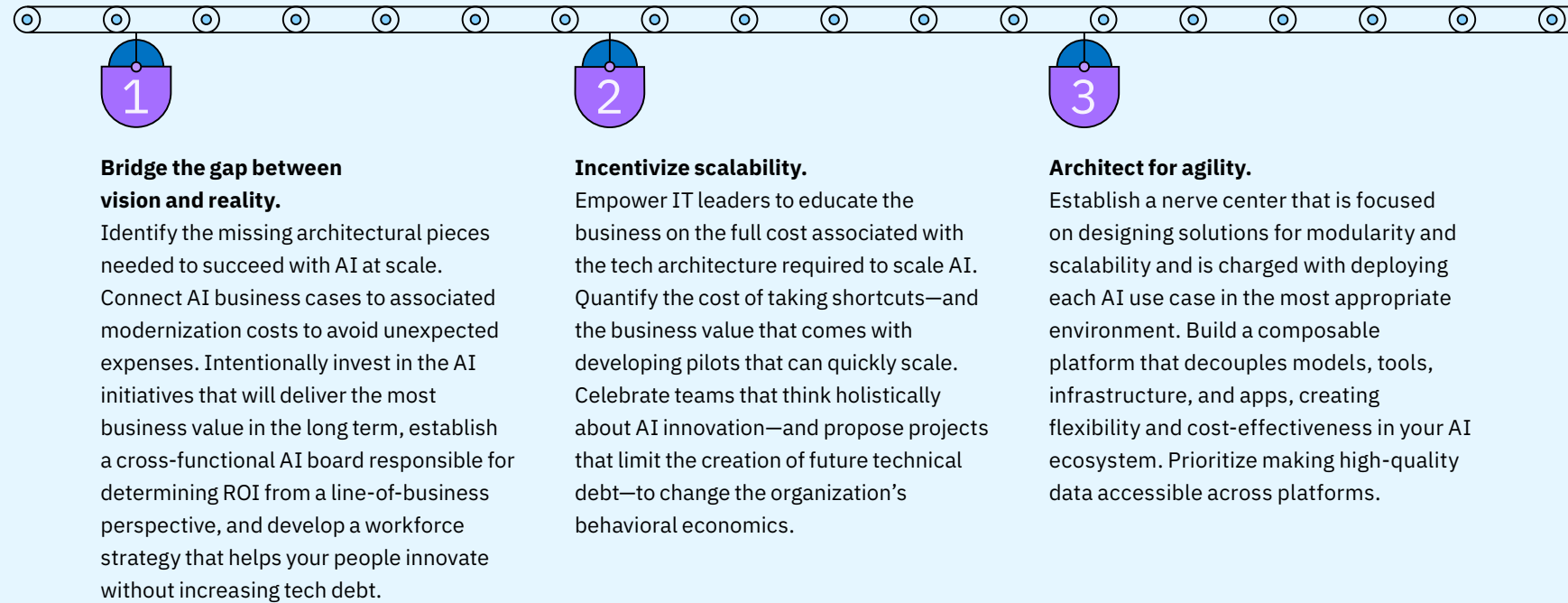
To scale AI systems and incorporate agentic AI without compounding technical debt, organizations must incentivize teams to modernize traditional systems and change the way they develop new solutions. By linking long-term productivity gains and performance metrics to every new solution, CIOs, CFOs, and other key leaders can measure the potential benefits of modernization and put a price tag on taking shortcuts. When these leaders join forces, they can help teams decide when accumulating technical debt for the sake of speed makes sense—and when it's better to build the right architecture from the start, especially as upskilling and reskilling efforts increase productivity over time.

Flexibility must be part of the equation, as well. To get the greatest benefit from cloud-based technologies, organizations need to be able to run each system and application in the right public or private cloud environment—an approach we call hybrid by design. On average, IT executives from companies adopting hybrid by design for their digital transformation efforts reported 3X higher ROI than those that don't.[16]

That's a pretty strong argument for planning ahead. But today, two-thirds of CEOs say they're meeting short-term targets by reallocating resources from longer-term efforts.[17] If leaders don't shift this mindset, technical debt could preclude progress, even if quick wins drive growth or profitability today.

By linking long-term productivity gains and performance metrics to new solutions, leaders can measure the benefits of modernization— and put a price tag on shortcuts.

What to do

1

Bridge the gap between vision and reality.
Identify the missing architectural pieces needed to succeed with AI at scale. Connect AI business cases to associated modernization costs to avoid unexpected expenses. Intentionally invest in the AI initiatives that will deliver the most business value in the long term, establish a cross-functional AI board responsible for determining ROI from a line-of-business perspective, and develop a workforce strategy that helps your people innovate without increasing tech debt.

2

Incentivize scalability.
Empower IT leaders to educate the business on the full cost associated with the tech architecture required to scale AI. Quantify the cost of taking shortcuts—and the business value that comes with developing pilots that can quickly scale. Celebrate teams that think holistically about AI innovation—and propose projects that limit the creation of future technical debt—to change the organization's behavioral economics.

3

Architect for agility.
Establish a nerve center that is focused on designing solutions for modularity and scalability and is charged with deploying each AI use case in the most appropriate environment. Build a composable platform that decouples models, tools, infrastructure, and apps, creating flexibility and cost-effectiveness in your AI ecosystem. Prioritize making high-quality data accessible across platforms.

In the age of AI, location is everything.

Perpetual disruption is here to stay. But that doesn't mean it's predictable. To navigate complexity wherever it rears its head, leaders must be able to see the big picture—and the market-level minutiae—in one sweeping view. They must strategically adjust operations based on market-level shifts, without overreacting to local disruptions as they occur.
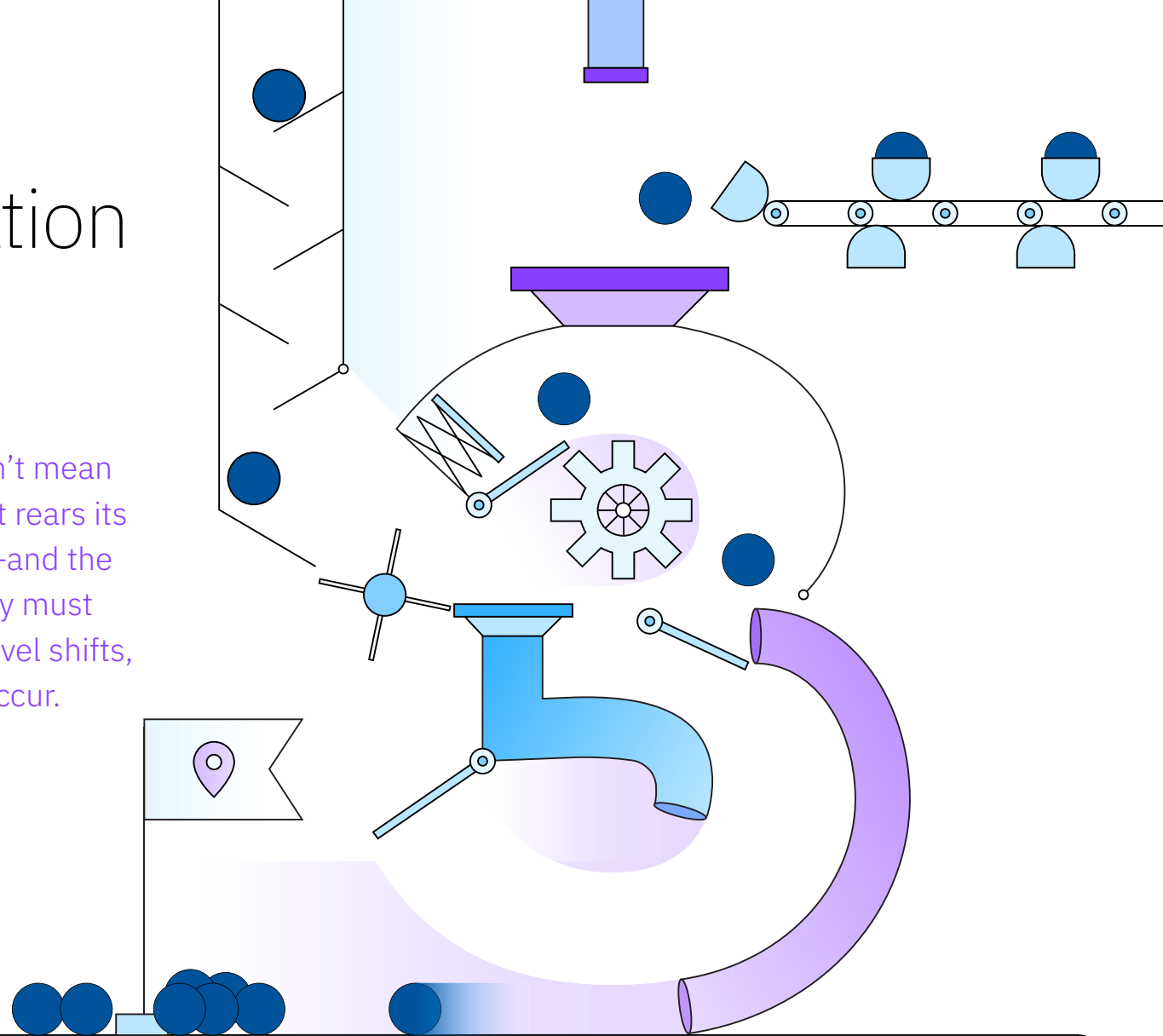
And striking the right balance is getting harder every day. Looking to the future, 60% of government leaders believe that shocks are likely to increase in frequency and 70% believe they're likely to increase in intensity and impact.[18] This is forcing business leaders to assess where their data is housed and rethink how—and where—their organizations should operate. In 2024, 86% of executives said their location strategy was impacted by geopolitical disruption—and that figure is expected to rise to 93% in 2026.

Location strategies, which define where a company's key resources and capabilities reside, are also being influenced by the AI revolution. As organizations seek out the talent, data ecosystems, and infrastructure needed to scale AI effectively, they're moving operations to places they believe will provide the greatest strategic advantage. In 2024, 67% of executives say their organization's use of AI changed where it operated—and a whopping 93% expect AI to impact their location strategy in 2026. Similarly, 96% of executives say data privacy, security, and

96%
of executives say data privacy, security, and regulations will determine where they locate operations in 2026.

93%
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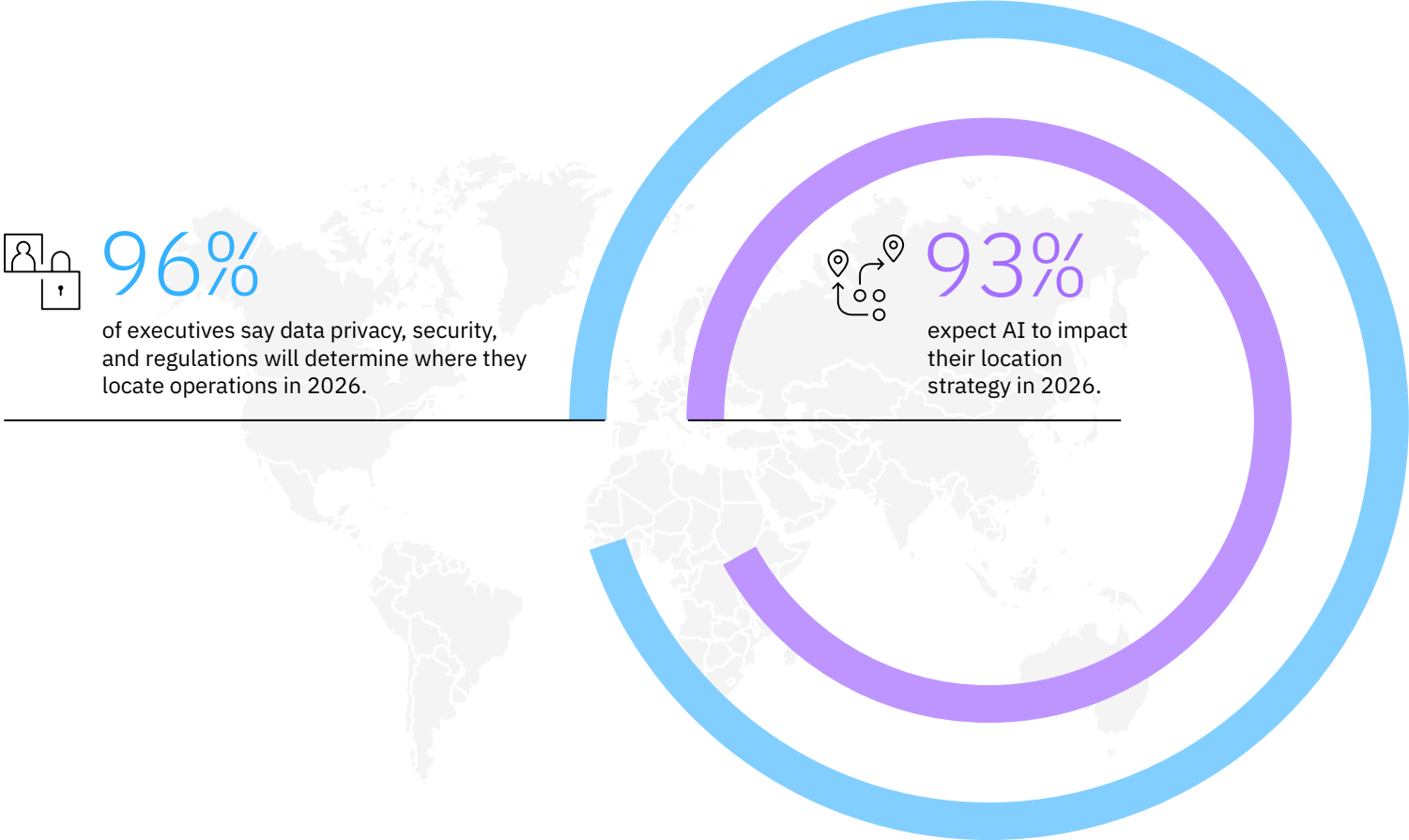
Source: 5 Trends for 2025 global pulse survey.
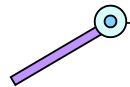
regulations will determine where they locate operations in the next two years. However, it's important to note that many privacy regulations are not so restrictive as to necessitate data localization. Leveraging hybrid cloud environments enables organizations to ensure compliance with data privacy requirements while maintaining operational flexibility.

Think of it this way: As organizations expand into new markets to drive growth, they need to use customer data to drive product development and deliver personalized experiences with AI. But they also need to comply with local regulations—and cultural expectations—regarding how AI is used and how private data is secured. So, they're prioritizing markets that will offer the ideal mix of skilled talent, computing capabilities, supportive regulations, and customer demand to foster growth.

As a result, 89% of executives agree with two statements about their 2025 location strategy that may seem at odds. They say they're widening their reach and extending operations globally *and* they're primarily focused on a few core markets. This shows that organizations are being selective as they plan their growth strategy—but international markets are still a priority.
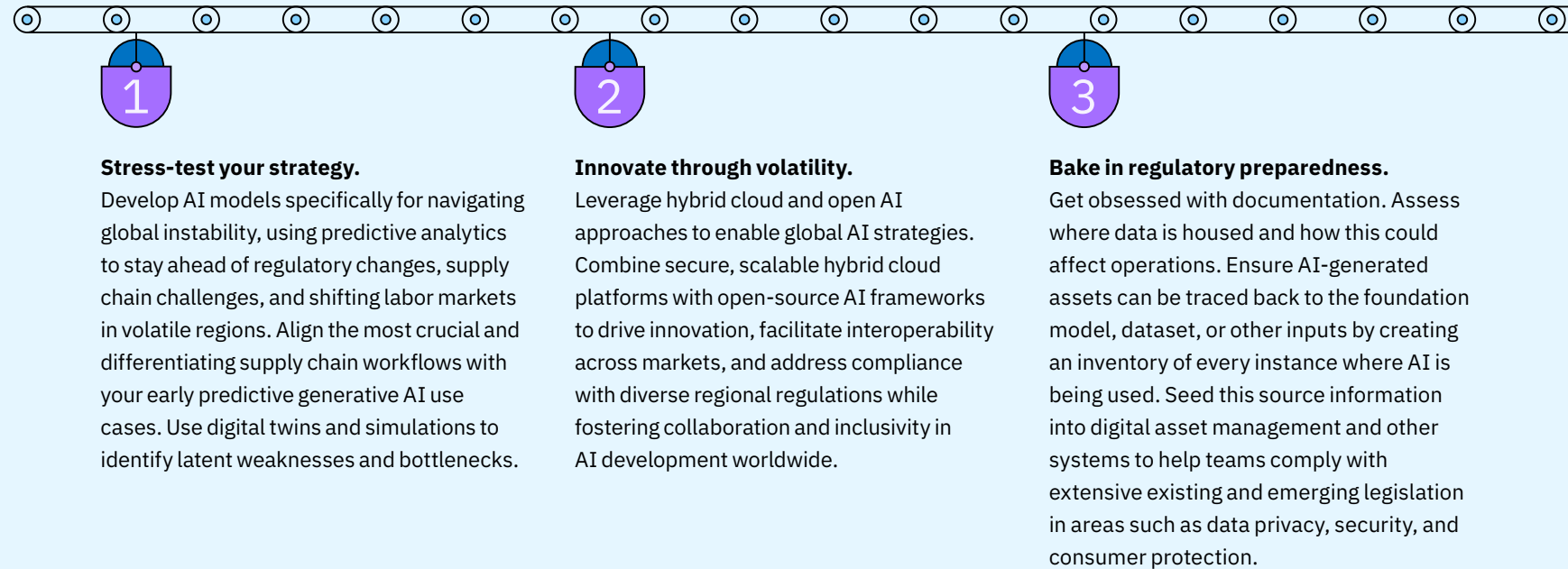
At the same time, splintering AI regulation has business leaders looking at certain aspects of the business through a different lens. For instance, 37% of executives say they will manage their data strategy and governance more regionally in 2025, with 26% saying they will take a more global approach. Still, 69% of executives expect their organization to receive a regulatory fine due to generative AI adoption.[19]

As regulations become more widely defined and adopted, executives expect this risk to decrease. For example, 57% of CEOs say the guidelines provided by the EU AI Act increases their willingness to invest in AI.[20] The predictive capabilities of gen AI can help organizations manage disruption, as well. In fact, 77% of executives say gen AI models can successfully identify geopolitical and climate risks, enabling proactive mitigation.[21]

As organizations seek out the talent, data ecosystems, and infrastructure needed to scale AI, they're moving operations to places that provide the greatest strategic advantage.

What to do

1
Stress-test your strategy.
Develop AI models specifically for navigating global instability, using predictive analytics to stay ahead of regulatory changes, supply chain challenges, and shifting labor markets in volatile regions. Align the most crucial and differentiating supply chain workflows with your early predictive generative AI use cases. Use digital twins and simulations to identify latent weaknesses and bottlenecks.

2
Innovate through volatility.
Leverage hybrid cloud and open AI approaches to enable global AI strategies. Combine secure, scalable hybrid cloud platforms with open-source AI frameworks to drive innovation, facilitate interoperability across markets, and address compliance with diverse regional regulations while fostering collaboration and inclusivity in AI development worldwide.

3
Bake in regulatory preparedness.
Get obsessed with documentation. Assess where data is housed and how this could affect operations. Ensure AI-generated assets can be traced back to the foundation model, dataset, or other inputs by creating an inventory of every instance where AI is being used. Seed this source information into digital asset management and other systems to help teams comply with extensive existing and emerging legislation in areas such as data privacy, security, and consumer protection.

The rapid pivot to AI has upended IT budgets, but self-funding is imminent.

Generative AI has made the traditional IT budgeting process untenable. It's sending shockwaves through technology and finance teams as they rush to reevaluate their spending priorities—and move money where it's needed most.
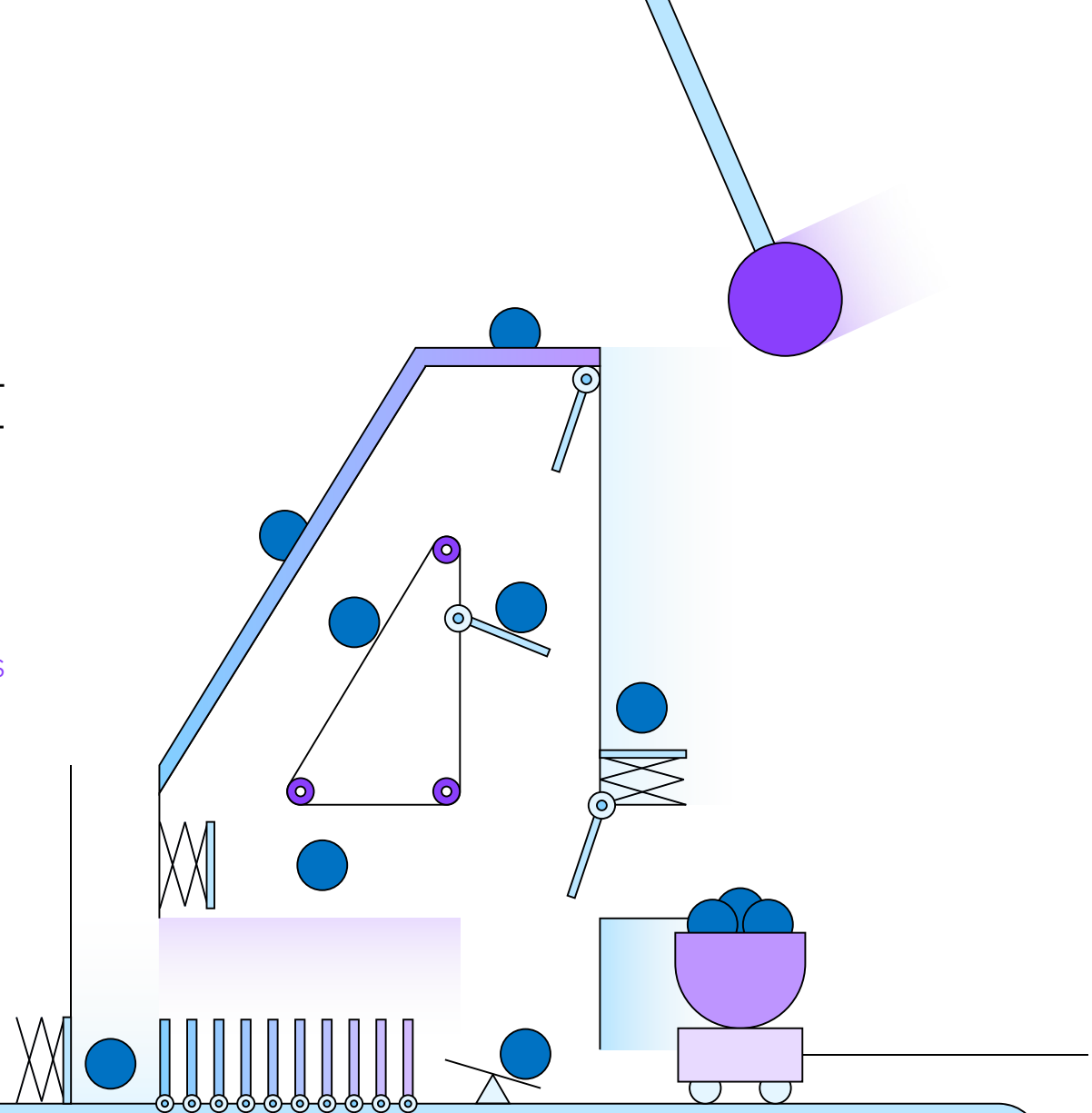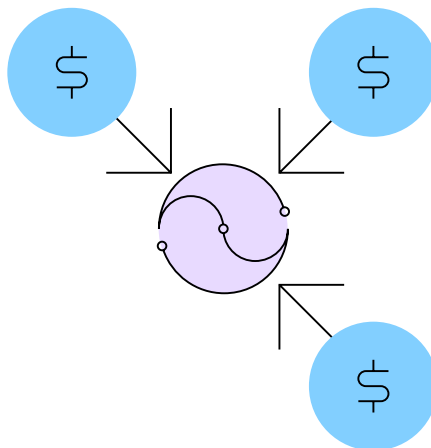
75%

of business leaders are thinking of gen AI more like an innovation investment than traditional IT today.

Leaders know they need to invest in gen AI to keep up with the competition, but these solutions have yet to deliver production-level ROI. This has led to widespread cannibalism of broader IT budgets. In 2024, one in three organizations pulled funding for gen AI from other IT initiatives, with only 18% of tech execs funding these projects with net-new spend.[22] Of course, there's some overlap between the investments gen AI requires and other IT priorities, with executives reporting that infrastructure, cloud, and data account for more than 40% of gen AI costs.[23]

But that still leaves a large funding gap—one that executives are rushing to fill. Nearly all executives (95%) say gen AI will be at least partially self-funded by 2026, with a focus on driving future profitability. While three in four business leaders are thinking of gen AI more like an innovation investment than traditional IT today, 71% of executives say gen AI *should* be self-funded to justify its investment.[24]
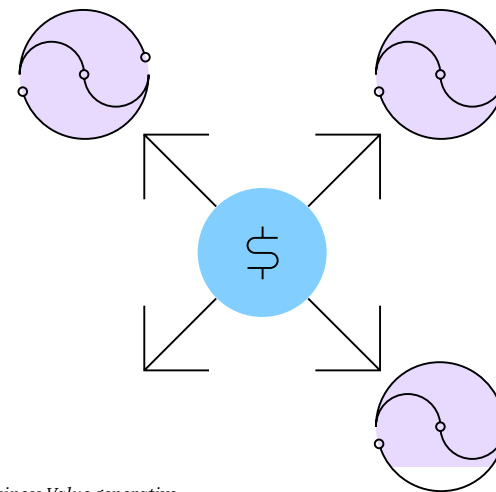
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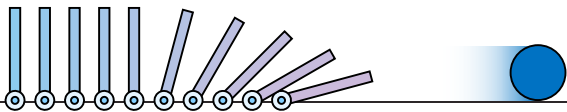
Source: IBM Institute for Business Value generative AI and innovation spend pulse (AI Academy) survey.

So, what will it take to move gen AI out of the innovation sandbox and into the revenue stream? It starts with focusing gen AI investments in the areas with the greatest potential and the lowest-risk applications, rather than spreading funds evenly across the portfolio. In 2024, 71% of gen AI spending went to HR, finance, customer service, sales and marketing, and IT, where investments were expected to cut costs. Only 29% went to product-related business functions, where growth-driving innovations incubate. This makes it difficult to define business cases that break the mold.[25]
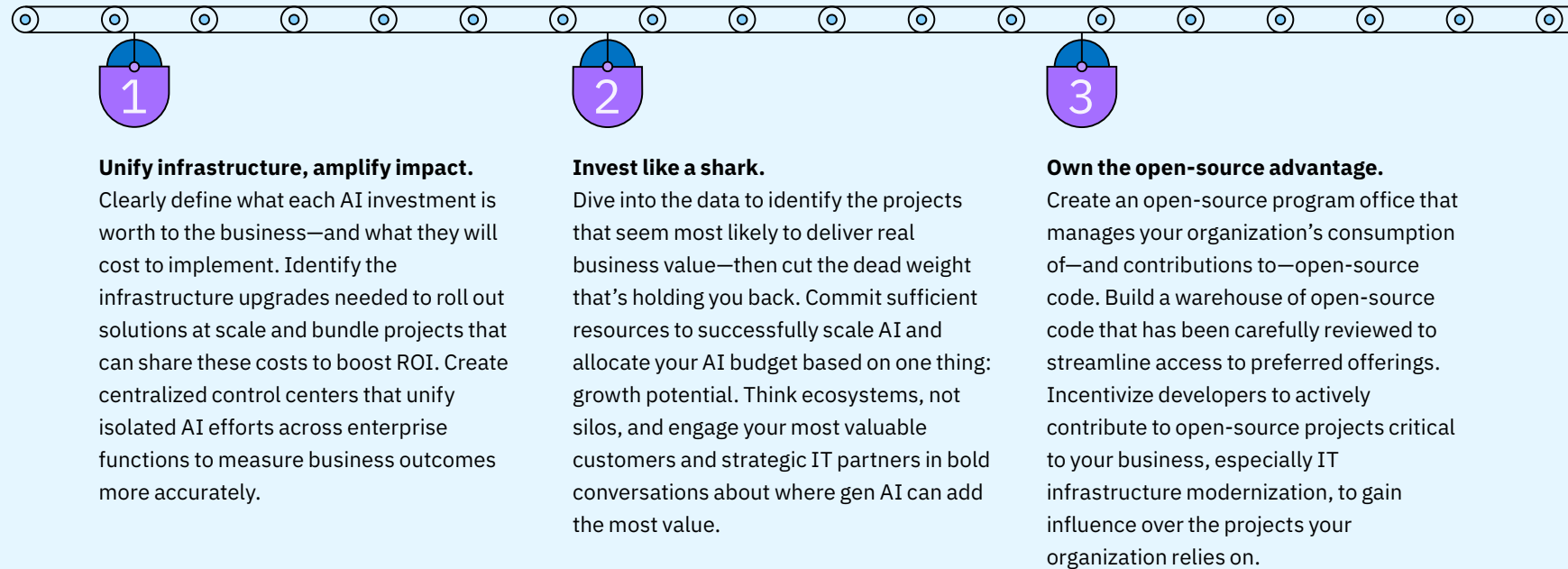
That's one reason the average gen AI investment takes almost 14 months to deliver positive ROI, compared to just 10 months for other technology investments.[26] But that won't be the case for much longer. As more organizations embrace fit-for-purpose AI models—combined with open source and agile—the cost side of the equation will start to shrink. Over the next three years, executives expect their AI model portfolios to include 63% more open models than they use today, which will play a large role in driving down development costs.[27]

While revenue growth has been the least effective metric for gauging gen AI success to date, it will be the primary way businesses measure differentiation in the long term. But to get revenue and ROI metrics where they need to be, leaders must make data-driven decisions about which gen AI plays they expect to do the most to advance strategic objectives—and fund them accordingly.

As organizations embrace fit-for-purpose AI models—combined with open source and agile—the cost side of the equation will start to shrink.

What to do

1

Unify infrastructure, amplify impact.
Clearly define what each AI investment is worth to the business—and what they will cost to implement. Identify the infrastructure upgrades needed to roll out solutions at scale and bundle projects that can share these costs to boost ROI. Create centralized control centers that unify isolated AI efforts across enterprise functions to measure business outcomes more accurately.

2

Invest like a shark.
Dive into the data to identify the projects that seem most likely to deliver real business value—then cut the dead weight that's holding you back. Commit sufficient resources to successfully scale AI and allocate your AI budget based on one thing: growth potential. Think ecosystems, not silos, and engage your most valuable customers and strategic IT partners in bold conversations about where gen AI can add the most value.

3

Own the open-source advantage.
Create an open-source program office that manages your organization's consumption of—and contributions to—open-source code. Build a warehouse of open-source code that has been carefully reviewed to streamline access to preferred offerings. Incentivize developers to actively contribute to open-source projects critical to your business, especially IT infrastructure modernization, to gain influence over the projects your organization relies on.
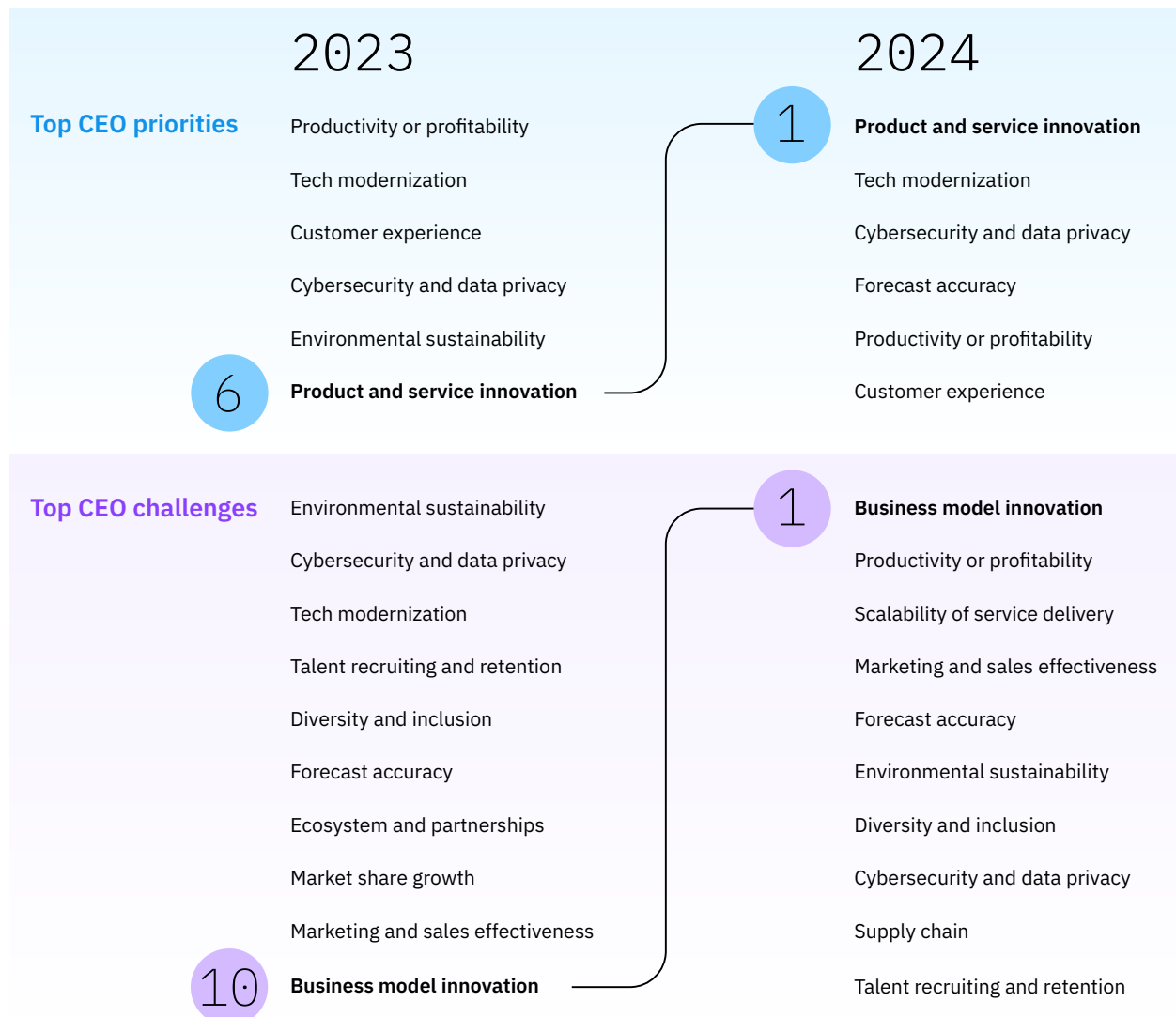
AI product and service innovation is the #1 CEO goal, yet business models aren't keeping up.

As generative AI supercharges innovation, the pipeline of new products and services is bursting at the seams. But many organizations are too wedded to old business models to tap into new opportunities to drive growth.

And CEOs are feeling the crunch. In 2024, they cited business model innovation as the top challenge they expect to face over the next three years—up from 10th place in 2023—while also naming product and service innovation as their top priority for the same timeframe.[28] Business leaders understand that, to make the most of innovative offerings, they'll also need to rethink how they turn a profit.

In fact, 62% of CEOs say they must rewrite their organizational playbook to win in the future.[29] AI will play a major role in this shift. Over the next three years, 85% of executives say AI will enable business model innovation and 89% say it will drive product and service innovation.[30] What does this look like? It starts with analyzing customer and market data faster and more comprehensively than ever before—then changing strategies to keep up with shifting demands. This will require centering business models on the careful design of human-machine interaction—and building strong supporting governance structures—as well as rethinking organizational structures and workflows.

Getting it right can help companies stay ahead of the competition—and strengthen customer relationships. For example, nine in 10 executives already using gen AI for product idea generation say it differentiates their company by helping it respond to market shifts faster. Going forward, they also believe generative AI will positively impact product differentiation (88%), product trust (83%), and product quality (80%).[31]

2023   2024

Top CEO priorities

2023	2024
Productivity or profitability	**1** **Product and service innovation**
Tech modernization	Tech modernization
Customer experience	Cybersecurity and data privacy
Cybersecurity and data privacy	Forecast accuracy
Environmental sustainability	Productivity or profitability
6 **Product and service innovation**	Customer experience

Top CEO challenges

2023	2024
Environmental sustainability	**1** **Business model innovation**
Cybersecurity and data privacy	Productivity or profitability
Tech modernization	Scalability of service delivery
Talent recruiting and retention	Marketing and sales effectiveness
Diversity and inclusion	Forecast accuracy
Forecast accuracy	Environmental sustainability
Ecosystem and partnerships	Diversity and inclusion
Market share growth	Cybersecurity and data privacy
Marketing and sales effectiveness	Supply chain
10 **Business model innovation**	Talent recruiting and retention

Source: The 2024 CEO Study: 6 hard truths CEOs must face. IBM Institute for Business Value.

Standing out will be crucial as a flood of AI-inspired products and services compete for eyes in the marketplace. As customers are barraged with new options from every direction, executives across 13 industries agree that a single differentiating factor does the most to move the needle on ROI: customer loyalty.[32]

And nothing keeps customers coming back like bespoke experiences. In fact, executives expect personalization and customization to be the top customer demands that will disrupt how their organization delivers products and services.[33] But accommodating rapidly evolving consumer preferences requires more than just clever algorithms and data analysis. It takes open business models built on ecosystem partnerships.

By partnering with organizations that offer complementary capabilities, companies can tap into a vast network of expertise and resources that enhance innovation. It's no longer about being the best at everything. It's about being the best at what you do best—and tapping partners for everything else.

Nothing keeps customers coming back like bespoke experiences.

What to do

1

Shatter departmental divides.
Build multidisciplinary teams to blend technology and the business. Encourage knowledge-sharing by bringing together people with product, engineering, and AI expertise. Make innovation a collective mandate—and create a team charged with rethinking the business model. Encourage and empower all team members to actively evolve day-to-day workflows to allow for business model transformation.

2

Lock onto the moving target of customer demand.
Listen to what customers are saying across channels, including social media, online reviews, and surveys. Use generative AI to decode the chatter—and adjust product offerings, store layouts, and marketing strategies accordingly. Tap into customer data, including info from IoT devices, to craft experiences for an audience of one.

3

Stop trying to go it alone.
Identify potential partners that offer complementary capabilities—think startups, academic institutions, or even competitors—and forge alliances that can help you tap into their expertise. Consider co-creating products or services, sharing IP, or even swapping talent to get access to the skills you need.

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