The Future Framework:

Resilience, Connection and Ethics in the Age of AI

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About the Study

This whitepaper is informed by a global WSJ Intelligence–NTT research study examining the state of artificial intelligence, infrastructure readiness and the evolving responsibilities of technology leadership. The study surveyed 359 CEOs and equivalent executives across 16 countries and seven major industries, each leading either a U.S.-based organization with at least $1 billion in annual revenue or a non-U.S. business generating at least $500 million annually.

The research measured investment priorities, infrastructure maturity, perceived risks, workforce expectations and attitudes toward sustainability, photonics, data governance and AI regulation. All findings in this report are drawn from that proprietary dataset.

About NTT

NTT is a leading global technology company providing services to consumers as a mobile operator and businesses by providing infrastructure, networks, applications, and consulting services. NTT contributes to a sustainable society through the power of our innovative offerings. These include business consulting, AI solutions, managed application services, global networks, cybersecurity, data center services and edge computing, all supported by our deep global industry expertise. We are over $90 billion in revenue and 340,000 people, investing 30% of our profits into fundamental research and development each year. Our operations span across 70+ countries and regions, allowing us to serve clients in over 190 of them. We work with more than 70% of Fortune Global 100 companies, thousands of enterprises, government clients and millions of consumers.

About WSJ Intelligence

WSJ Intelligence conducts bespoke research for brands and client brands of The Wall Street Journal and Barron's Group. Through rigorous analysis, WSJ Intelligence provides relevant, timely and reliable insights. We can create and distribute powerful executive-level business support by using various methodologies and our world-class distribution channels, collaborating with clients on compelling and unique data-backed insights targeting their core constituents.

Executive Summary

WSJ Intelligence conducted a global survey of CEOs and senior leaders shaping the next era of artificial intelligence. The study examined how organizations are scaling AI, modernizing infrastructure and navigating the tension between performance, responsible deployment and long-term enterprise resilience.

Key Findings

AI has become essential—but most firms are not yet ready for scale.

Only **18%** (Q10) of CEOs say their technology infrastructure is highly optimized to support AI at scale, even as **68%** (Q7) plan to increase investment in the next two years. Computing power constraints, legacy network limitations and data-preparation bottlenecks remain the top obstacles to AI maturity (Q11).

Human-AI collaboration is a growing area of interest.

Leaders expect human-AI collaboration skills to become critical by 2030, indicating a shift from tool adoption to workforce augmentation.

Data integrity and cybersecurity are the defining trust challenges.

Shadow AI is widespread—**65%** say more than a tenth of their workforce uses unsanctioned AI tools—and **84%** are concerned about the associated risks, led by sensitive data leakage and integrity erosion. Nearly **nine in 10** believe companies must do more to safeguard and clean the data feeding their AI systems.

Performance is trumping sustainability in early AI infrastructure design.

Seven in 10 CEOs prioritize either maximum performance or a performance-first approach to AI workloads. Yet **75%** still believe sustainable practices will sacrifice profitability, revealing a persistent zero-sum mindset—even as interest in efficient technologies like photonics continues to rise.

Green, energy-efficient infrastructure is becoming a commercial expectation.

A growing share of leaders acknowledge the environmental cost of rapid AI scaling: **83%** say executives focus too heavily on benefits without considering energy implications. At the same time, distributed green data centers, energy-efficient hardware and optical networking are emerging as preferred pathways for sustainable scale.

The findings show that AI is entering a new phase defined by strategic alignment. Leaders are seeking durable infrastructure, connected intelligence and trustworthy systems that strengthen competitiveness while meeting rising societal and environmental expectations.

“AI scales not through advanced models alone, but also through the strength of the foundations beneath them.”

Abhijit Dubey, President & CEO and Chief AI Officer, NTT DATA, Inc.

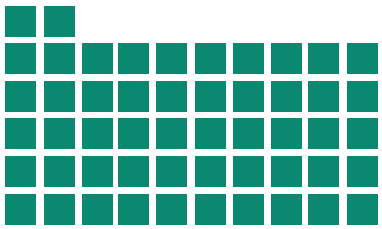
INTRODUCTION

From AI Adoption to AI Alignment

Artificial intelligence has crossed the threshold from experimentation to essential infrastructure. Across industries, CEOs now view AI not as a bolt-on innovation but as a core driver of competitiveness. Yet, the reality is more nuanced: only **18%** of CEOs say their infrastructure is ready to support AI at scale, even as models become larger, workloads become heavier and expectations continue to grow.

Return on investment reflects a similar divide. Half of global leaders report that AI outcomes meet their initial expectations, while the other half cite a shortfall. Even so, **68%** plan to increase their AI budgets over the next two years—nearly half by more than **11%**—indicating that AI remains central to long-term business strategy.

52%



say current AI ROI **meets/exceeds** expectations

24%

say current AI ROI **falls short** of expectations

As AI becomes embedded throughout day-to-day operations, practical questions that determine whether the technology can deliver sustained value include:

- How should intelligent systems be designed?
- Where should AI sit within the operational structure?
- Who oversees its governance, security and integrity?
- How do we align AI with the people and processes that depend on it?

This whitepaper explores these questions through three leadership capabilities—Resilience, Connection and Ethics—which, together, outline the conditions for building the intelligent enterprise.

As Abhijit Dubey, CEO and Chief AI Officer of NTT DATA Inc., notes that the shift from experimentation to enterprise-wide deployment demands a fundamentally different planning horizon.

"AI scales not through advanced models alone, but also through the strength of the foundations beneath them," says Dubey. "When organizations invest in skilled talent, unified teams, resilient platforms, and trusted data, AI moves from isolated experiments to a disciplined capability that drives enterprise transformation."

SECTION ONE

Building for Durability: Resilience at Scale

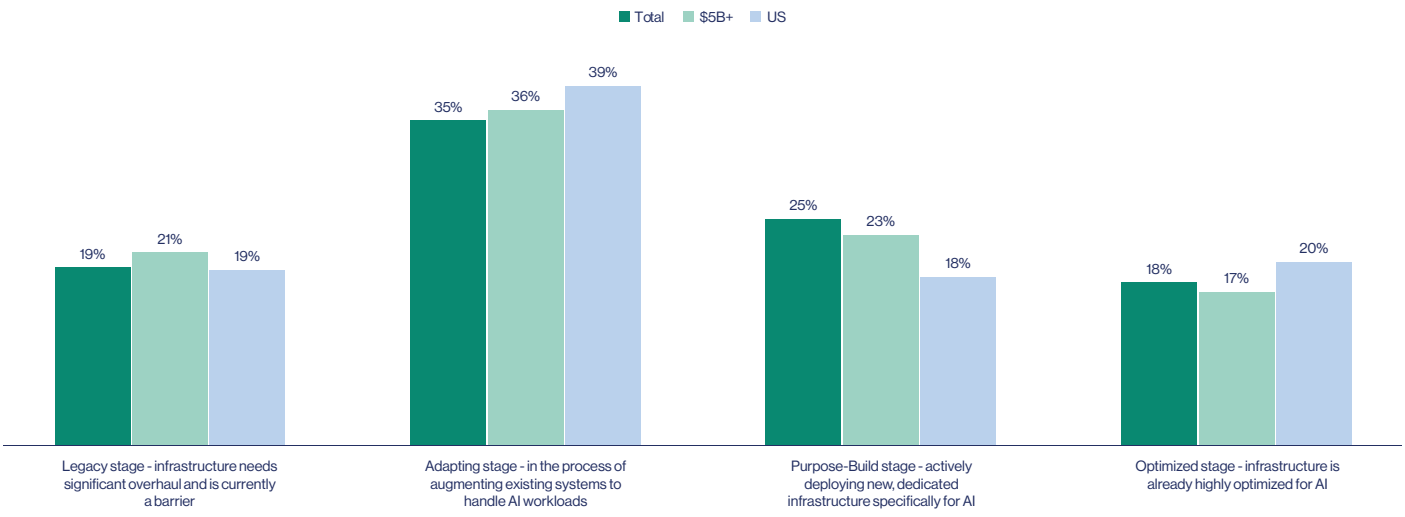
As organizations expand their use of AI, the pressure on core systems is intensifying. Most CEOs describe their technology environments as still in transition—supported by the 54% who are adapting legacy systems and 26% who are deploying new AI infrastructure. These limitations influence everything from development cycles to product release timelines and the speed at which teams can operationalize new AI capabilities.

Leaders consistently point to the same underlying issues: insufficient computing capacity, networks that cannot efficiently support large-scale AI workloads and data that requires extensive preparation before it can be used. Each challenge adds friction to scaling efforts, increasing cost and elongating the path to impact.

Less Than a Fifth Currently Have AI-Ready Infrastructure

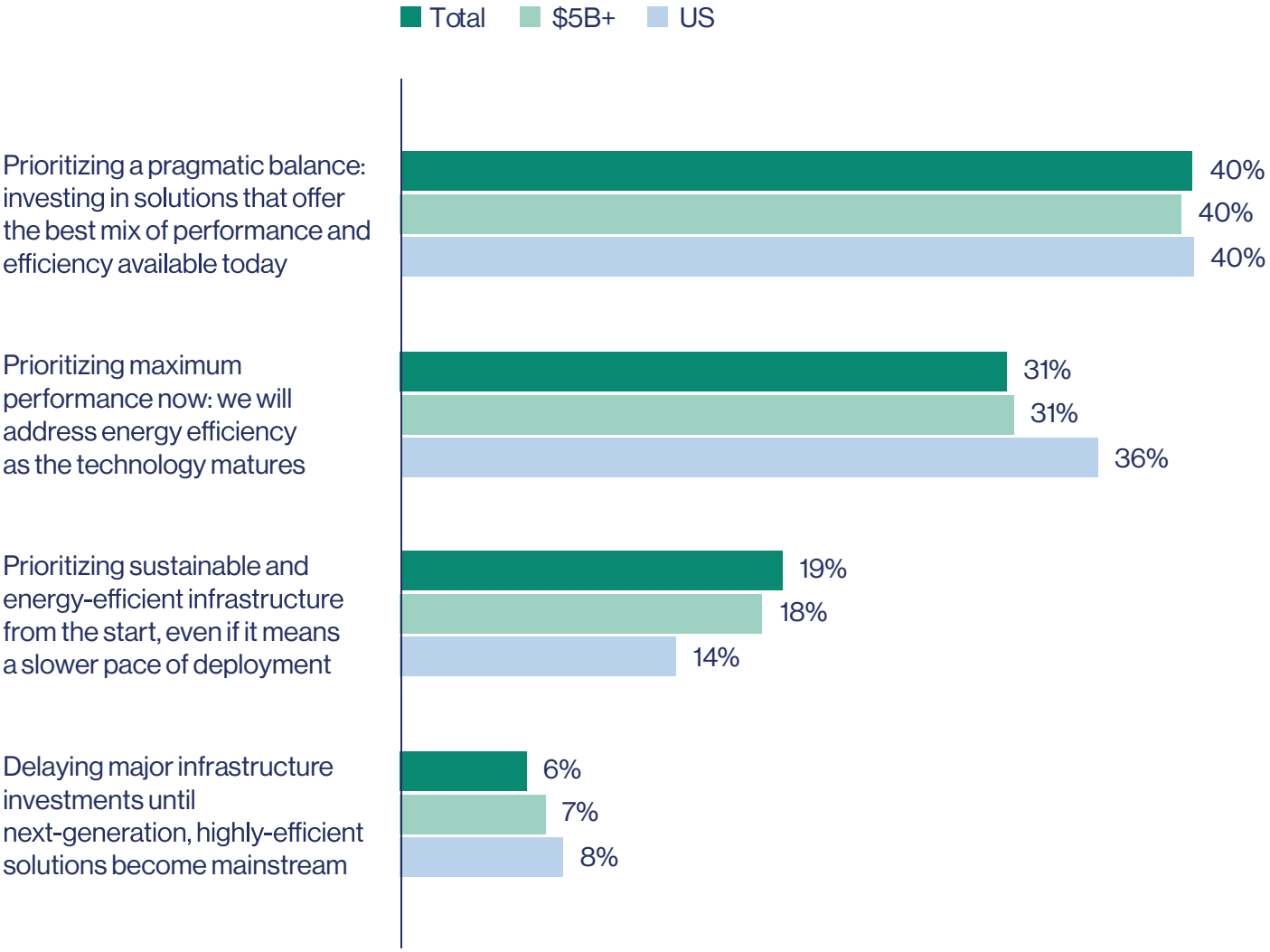
Most respondents (54%) are within the legacy of adapting stages of their infrastructure to support AI at scale over the next 12-24 months, while a quarter say they are actively deploying new infrastructure specifically for AI.

Readiness of Current Infrastructure to Support AI At Scale Over Next 12-24 Months



Even under these constraints, performance remains the dominant priority. A third of CEOs are now prioritizing maximum performance, with plans to address energy efficiency as technologies mature. This reflects a broader pattern across the study: organizations are still under pressure to deliver reliable, high-capability AI systems, even if optimization comes later.

Approach to Balancing AI Performance & Energy Efficiency



The divide between companies that can scale AI effectively and those that cannot is becoming more visible. Growing workloads are also driving interest in technologies that increase capacity without proportionally increasing power consumption. Photonics is a clear example: 91% of executives say they are familiar with photonics, 55% express strong interest in adopting it and 36% already use it in some capacity. Among executives whose firms already use photonics, nearly half come from organizations with more than $5 billion in annual revenue.

"The reality is that AI only moves as fast as the infrastructure beneath it," Dubey explains. "When your data, networks and compute are built for durability and performance, you can train models quickly, integrate updates without disruption and respond to new opportunities in real time. When they're not, every slowdown compounds—and that gap becomes a competitive chasm over time."

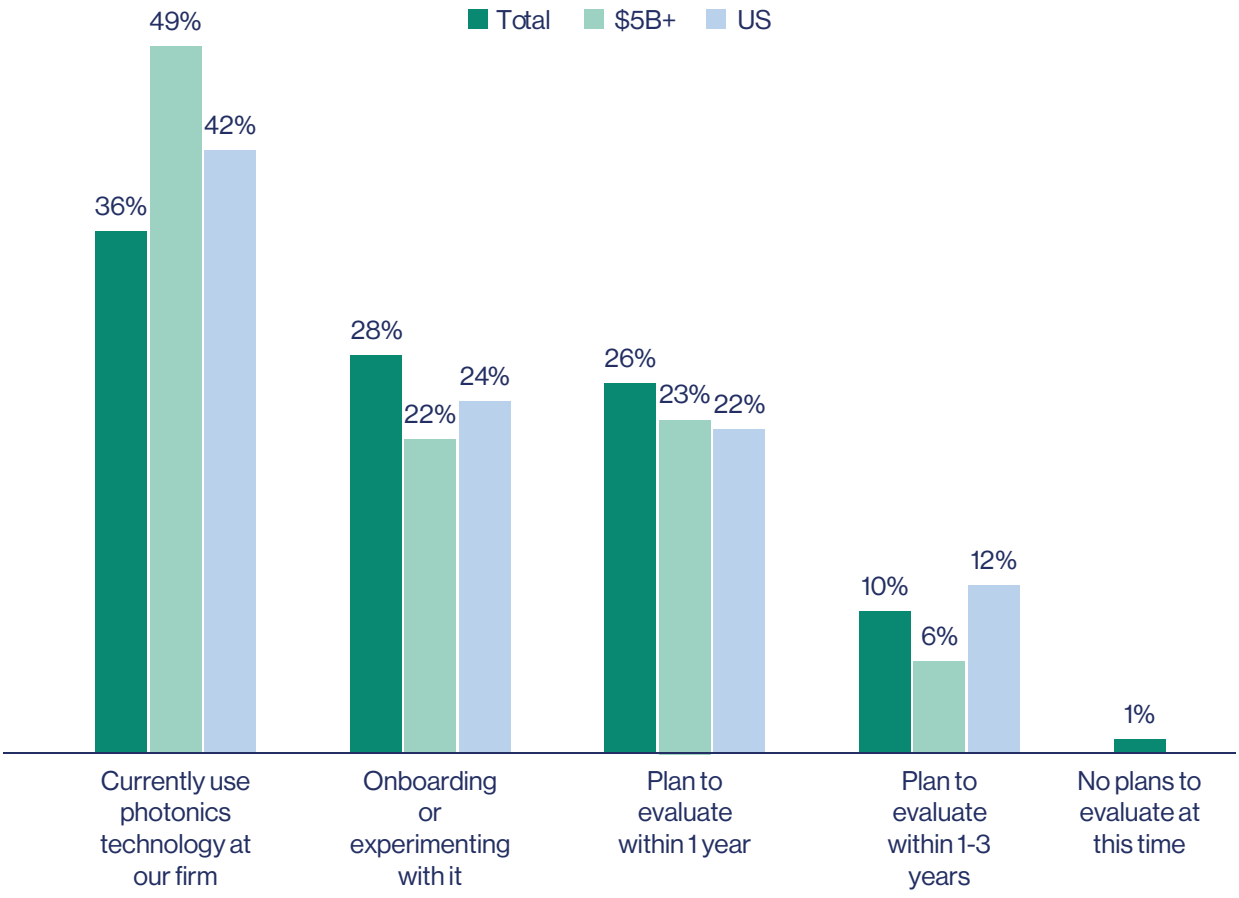
Because photonics transmits data using light rather than electrical signals, it enables higher throughput with lower heat and energy demands—directly addressing the pressure points created by AI-intensive operations.

NTT's work in this domain, including the IOWN initiative, illustrates what this evolution looks like in practice: systems designed to handle heavier AI workloads with greater speed and efficiency, enabling organizations to expand capacity without parallel increases in power usage or hardware strain.

Hiroshi Miura, senior manager of the IOWN Innovation Office at NTT DATA, emphasizes the importance of streamlined, consistent service in maintaining customer relationships: "Even a momentary disruption erodes the confidence of individuals, enterprises and markets. Financial services are essential for citizens' lives and we put the highest priority on system continuity and disaster recovery."

Resilience at scale is no longer just about handling peak traffic or protecting uptime. It's the capacity to adopt AI at the speed competitors are moving—and to continue doing so as models evolve. Organizations that treat infrastructure as a strategic lever, rather than a behind-the-scenes cost center, stand to gain innovation velocity, operational efficiency and long-term competitiveness.

Current Status of Photonics at Firm



SECTION TWO

Connection as Capability: Intelligence That Unites

Enterprises are no longer evaluating AI by individual model categories. Instead, they are redesigning entire workflows — identifying which tasks require predictive models, which benefit from generative capabilities and which should be orchestrated through agentic systems. The goal is not to elevate one type of AI over another; it is to ensure the right capability is applied at the right moment within a unified, outcome-driven process.

Within this context, predictive AI currently ranks highest in strategic priority for **two in three** CEOs. This may reflect the breadth of functions it supports today, from forecasting and risk detection to routing and day-to-day operational decision-making. At the same time, executives recognize that different AI capabilities serve different roles across the enterprise. As workflows evolve, organizations are increasingly combining predictive, generative and agentic systems to support decision-making, automation and collaboration.

83%

say human-AI collaboration skills will be critically important by 2030

89%

believe companies must do more to safeguard and clean their data

Two findings underscore this shift. First, 83% of executives say human–AI collaboration skills will be critically important for the workforce by 2030. This reflects a recognition that AI is increasingly embedded in day-to-day roles, shaping tasks, workflows and the information teams depend on. Second, nearly nine in 10 believe companies must do more to safeguard and clean the data feeding their AI systems. Leaders understand that predictive accuracy is directly tied to the integrity of the data that moves through the organization.

NTT's $3.4 billion coinvestment into the Mobility AI Platform with Toyota demonstrates the need for orchestrated intelligence at scale. For autonomous vehicles, value comes from real-time integration of signals—vision, mapping, environmental data and behavioral prediction—into a unified model that guides every micro-decision. By fusing data from vehicles with AI-optimized infrastructure, the platform eliminates blind spots and supports micro-decisioning in real time. Paired with IOWN-enabled photonic networks, the platform delivers the ultra-low-latency and high-speed backbone required for safety-critical decision-making at scale.

The principle mirrors the enterprise need: systems that analyze broad operational inputs, identify emerging patterns and coordinate actions that enable continuous decision-making.

NTT's work on sensory technologies and next-generation connectivity extends this idea further by exploring how signals, data and human interaction can be combined in ways that feel more intuitive, contextual and responsive. Touch, motion and even taste can be captured, encoded and sent through FEEL TECH technologies and ultra-low-latency infrastructure. In clinical pilots, physicians and elderly patients used FEEL TECH-enabled gloves to conduct remote physiotherapy sessions—restoring presence, reducing anxiety and improving adherence to care plans through tactile feedback that feels immediate. These innovations demonstrate how connection can become a strategic capability in technical systems and in how people might engage with powerful new technologies, such as physical AI.

Strengthening intelligence across the enterprise requires more than improving model performance. It depends on creating environments where data is reliable, workflows are coordinated and people can partner with AI as confidently as they would with any other part of the organization. Companies that invest in these capabilities will be positioned to make faster decisions, identify risks earlier and move with greater precision as markets and conditions evolve.

SECTION THREE

Trust by Design: Embedding Ethics into Innovation

Trust has become one of the most immediate and measurable constraints on AI adoption. As usage spreads across teams and functions, organizations are confronting a set of risks that sit well beyond model accuracy or workflow integration.

A new challenge is emerging for enterprises in the form of Shadow AI, where employees use publicly available AI tools for work tasks without official company approval. **65%** of executives say more than one-tenth of their workforce uses unsanctioned AI tools, and **84%** are concerned about the implications.

The risks they cite are direct and consequential, including concerns about sensitive data leakage, data integrity erosion, security vulnerabilities and inaccurate decisions. Each of these undermines the reliability of outputs and increases the potential for operational or reputational damage.

Shadow AI: Top Risks Identified by Executives

41%

Risk of sensitive data leakage

40%

Erosion of data integrity

38%

Exposure to security vulnerabilities

35%

Inaccurate or unreliable decisions

Formal oversight mechanisms are advancing but remain uneven. While **67%** of leaders believe their organizations have implemented effective AI governance processes, one-third do not share that confidence. As AI begins to shape customer interactions, internal decision-making and automated processes, this gap represents a material exposure for many firms.

33%

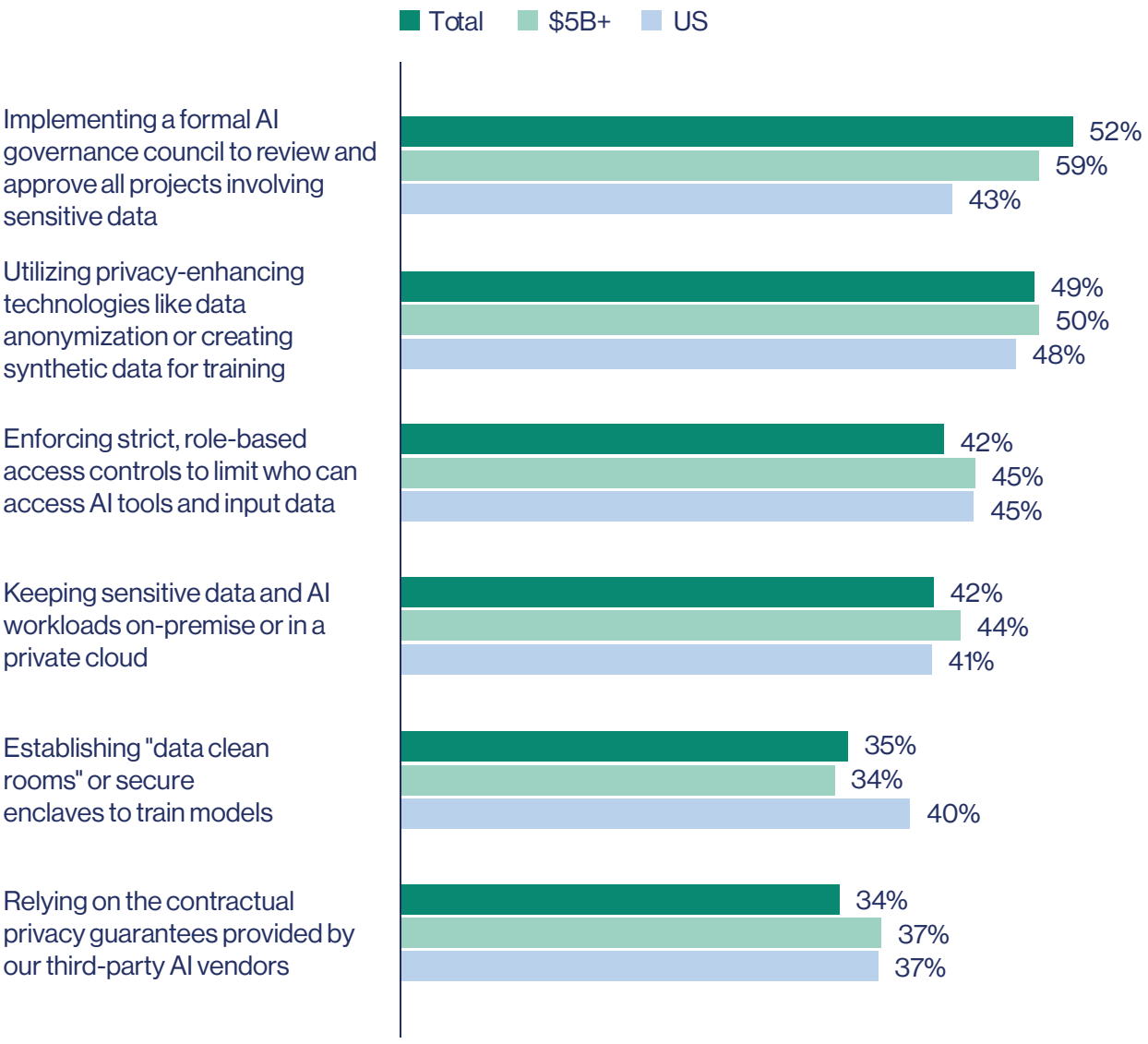
67% agreed that their organization has effectively implemented AI governance processes & risk management assessments. **33% did not agree.**

These concerns intensify with agentic AI—systems designed to act autonomously. Among executives who consider agentic AI a priority, 30% identify cybersecurity vulnerabilities as their top concern, followed by 19% who cite data privacy and IP protection risks. The ability of such systems to make independent decisions amplifies the stakes of any governance weakness.

Trust, as a result, is no longer viewed as a compliance requirement. It is emerging as a differentiator in how organizations deploy AI responsibly and at scale.

Organizations are taking a multi-layered approach to data protection. Nearly half are implementing formal AI governance councils to oversee sensitive projects, while many are adopting privacy-enhancing technologies to limit exposure of proprietary or customer data. Executives also emphasize foundational safeguards such as role-based access controls and, for the most sensitive workloads, keeping data and AI systems on-premise or within private cloud environments. These practices reflect a shift toward structured, proactive governance rather than reactive oversight.

Methods to Protect Sensitive Data When Using AI models



"AI has to be explainable, transparent and auditable," adds Dubey. "There are many guardrails around security, trust, ethics, biases and hallucinations that you have to build—and that's our responsibility."

The NTT AI Charter, for example, outlines principles for transparency, accountability and responsible model development.

"We are working to provide AI that is easily accepted by society by evaluating compliance with relevant industry laws and reducing risks through AI risk checks," says Muneki Nemoto, chief of AI governance at NTT.

These assessments start at the planning stage through system design, operation design and system testing for identified risks, he adds. "When AI is deployed in fields like transportation and medical care, the AI is additionally trained with industry-specific knowledge to improve the accuracy of output and social acceptability, depending on the use case."

Trust by design ensures that as AI grows more capable, the systems governing it remain stable, transparent and aligned with organizational standards. Companies that build this foundation now will be better positioned to deploy advanced AI with confidence and to maintain reliability as capabilities evolve.

NTT's AI Charter

Enabling Sustainable Development

Human Autonomy

Ensuring Fairness and Openness

Security

Privacy

Communication & Co-Creation with Society

SECTION FOUR

Balancing Performance and Purpose

The study makes one point clear: executives are building AI infrastructure around performance above all else. **Seven in 10** prioritize either maximum performance or a performance-first strategy with efficiency to follow. This reflects the immediate pressures they face—model size, latency requirements and the need for continuous deployment leave little room for compromise.

77% → **83%**

2024 **2025**

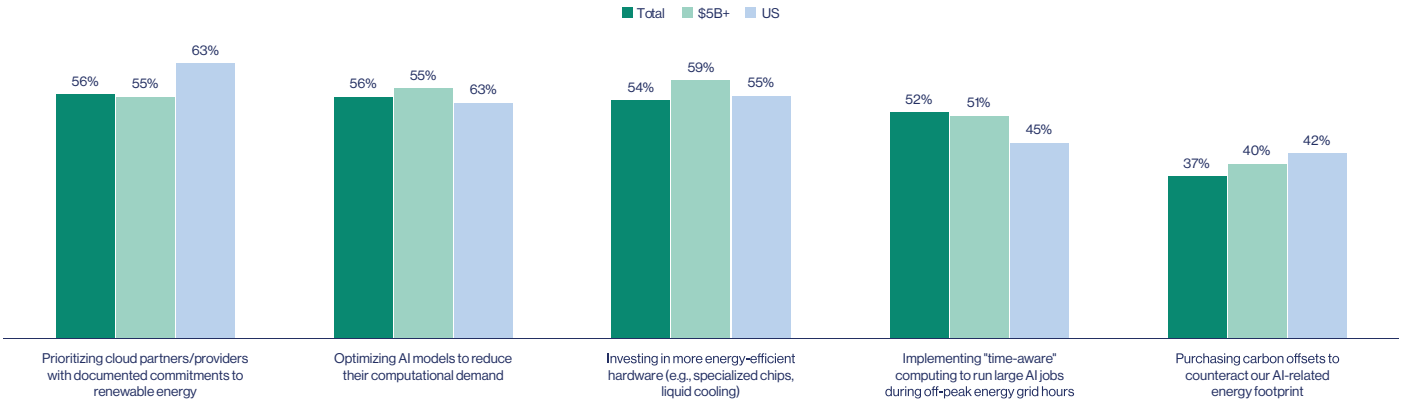
Executives are concerned that organizations focus too much on the benefits technologies have to offer and do not think about the environmental implications

Yet the perception of trade-off persists. A total of **75%** of CEOs believe sustainable practices will sacrifice profitability, a view especially common among larger enterprises. This belief sits in tension with the industry's technological trajectory. In practice, the solutions designed to support high-intensity AI workloads are often the same ones that reduce energy consumption and long-term operating costs.

Photonics, low-loss optical interconnects, advanced cooling systems and distributed data-center architectures all demonstrate this alignment. These technologies reduce heat, lower power usage, ease strain on infrastructure and improve density—capabilities that directly support the performance priorities executives continue to emphasize.

Executives are already acting on the energy implications of AI. Many are strengthening partnerships with cloud providers that have documented renewable-energy commitments, investing in more energy-efficient hardware, optimizing models to reduce compute load and deploying advanced cooling and energy-management systems. These strategies demonstrate a consistent pattern: the technologies that increase AI performance are increasingly the same ones that reduce energy use and long-term operational cost.

Strategies Being Taken to Ensure Sustainable AI Scaling



NTT DATA's green data-center initiatives in Japan illustrate this convergence. Facilities engineered with liquid and immersion cooling, GPU-accelerated systems, renewable energy sourcing and high-efficiency rack designs enable organizations to run large-scale, generative AI workloads with significantly lower energy overhead. These advances are reinforced by NTT's All-Photonics Network, which links data centers nationwide with ultra-high-speed optical connectivity. This allows for the distribution of high-compute-intensive AI workloads to renewable-powered data centers, without compromising performance or latency.

These designs are built for performance and engineered to deliver that performance more efficiently rather than seeing sustainability as an endpoint. The effect is cumulative: lower energy requirements, reduced operational strain and greater resilience during peak workloads.

The emerging pattern shows that as AI workloads intensify, the infrastructure innovations that support performance also tend to deliver efficiency gains.

Organizations that approach sustainability through this lens—as a mechanism for strengthening performance rather than restricting it—will be better positioned to scale AI without the cost penalties associated with older, less efficient systems.

"IOWN technology allows us to reduce power consumption by moving data transmission from electronics to photonics," Miura says. "We're providing high-bandwidth, low-latency networks that also enable low-power system designs in data centers."

> **"The reality is that AI only moves as fast as the infrastructure beneath it."**
>
> Abhijit Dubey, President & CEO and Chief AI Officer, NTT DATA, Inc.

CONCLUSION

The Leadership Reset: Human-Centered Innovation

The future of AI will be shaped less by technical capability and more by the choices leaders make about where and how it is used. The study shows a clear shift: executives are moving beyond adoption and focusing on strengthening resilience, improving connection across systems and teams and embedding ethics into every stage of development.

To guide this next phase, four principles stand out:

Invest with intention: Build infrastructure that lasts

Organizations that move beyond incremental upgrades and strengthen the systems supporting AI will be able to scale reliably, deploy models more quickly and absorb increasing workload demands.

Design for people: Technology must amplify human potential

As predictive systems and automation expand, the most competitive organizations will be those that prepare their workforce for human–AI collaboration and ensure AI enhances expertise and judgment.

Govern for trust: Transparency is a competitive differentiator

Data integrity, auditability and responsible governance are now core requirements. Companies that embed trust into their AI systems will be better equipped to manage risk, satisfy regulatory expectations and maintain long-term credibility.

Drive performance—with sustainable architecture accelerating it

Photonics, optical networking and energy-efficient data centers demonstrate that performance and efficiency can advance together. The infrastructure innovations that support high-intensity AI workloads are increasingly the same ones that reduce cost and environmental impact.

The organizations that succeed in this new era can create environments where AI strengthens capability, deepens insight and supports decisions at every level—the foundation of intelligent enterprise.

APPENDIX

Appendix

About the Research

This whitepaper is based on a global quantitative study of n=359 CEOs and equivalents across 16 countries conducted by WSJ Intelligence in partnership with NTT. It explores key themes around AI infrastructure, investment changes and readiness for scale, seeking to understand executive AI vision and how it will impact their firms in the long run.

It also examines topics like energy efficiency and sustainability, photonics interest, the impact of agentic and shadow AI on the workforce and productivity and how firms can ensure responsible AI deployment.

Methodology & Respondent Profile

Global quantitative study of n=359 CEOs from select industries, representing U.S.-based firms with at least $1B in annual revenue or non-U.S. businesses earning $500M annually.

Most are within tech, financial services, or manufacturing & come from high-revenue firms with at least $1B in annual sales.

Geographic Markets

Americas	***EMEA***	***Asia***
n=168	n=103	n=88
Brazil	France	Australia
Canada	Germany	China
Mexico	South Africa	Hong Kong
US	Spain	Japan
	UAE	Singapre
	UK	Taiwan

Industries

Technology	22%
Banking/Insurance/ Financial Services	21%
Manufacturing	19%
Telecommunications	13%
Energy/Utilities	11%
Consumer Packaged Goods	8%
Healthcare/Life Sciences/Pharma	

Revenue

$500M-$999M	23%
$1B-$4.99B	32%
$5B-9.99B	22%
10B-$19.99B	15%
$20B or more	8%

Glossary of Key Terms

Agentic AI

AI systems capable of taking actions or making decisions autonomously based on goals, constraints and contextual inputs. Unlike traditional models, agentic AI can initiate tasks, sequence steps and adapt its behavior without continuous human prompts.

AI Governance

The policies, processes and oversight mechanisms that manage how AI systems are developed, deployed and monitored. Includes risk management, ethical guidelines, auditability, transparency and compliance with laws and industry standards.

AI Infrastructure

The combined computing, networking, storage and data systems required to support AI workloads. This includes GPUs/accelerators, cloud or hybrid computing environments, data pipelines and the tools used to deploy, monitor and scale models.

Data Integrity

The accuracy, consistency and reliability of data over its lifecycle. In AI, it refers to ensuring that training and operational datasets are clean, complete and free of manipulation or corruption.

Data Preparation

The process of cleaning, labeling, transforming and structuring data for AI model training and inference. Often one of the most resource-intensive stages of AI deployment.

Federated Learning

A machine-learning technique that enables models to be trained across multiple decentralized devices or servers without sharing raw data. Improves privacy and reduces data transfer requirements.

Photonics

Technology that uses light (photons) instead of electrical signals to transmit data. In AI infrastructure, photonics improves bandwidth, reduces heat and energy use, and supports high-density, high-performance workloads.

Predictive AI

AI systems designed to identify patterns, forecast outcomes and support decision-making. Predictive models use historical and real-time data to estimate future events or recommended actions.

Resilient Infrastructure

Technology environments engineered to handle variability in AI workloads, scale efficiently and maintain reliability under increased demand. Includes performance, stability and the ability to support continuous model updates.

Shadow AI

Use of publicly available or unauthorized AI tools by employees for work tasks without formal organizational approval. Risks include data leakage, security vulnerabilities and loss of governance control.

Sustainability in AI Systems

Designing and operating AI infrastructure in ways that minimize environmental and energy impact. Includes efficient cooling systems, green data centers, optical networking and workload optimization.

Trustworthy AI

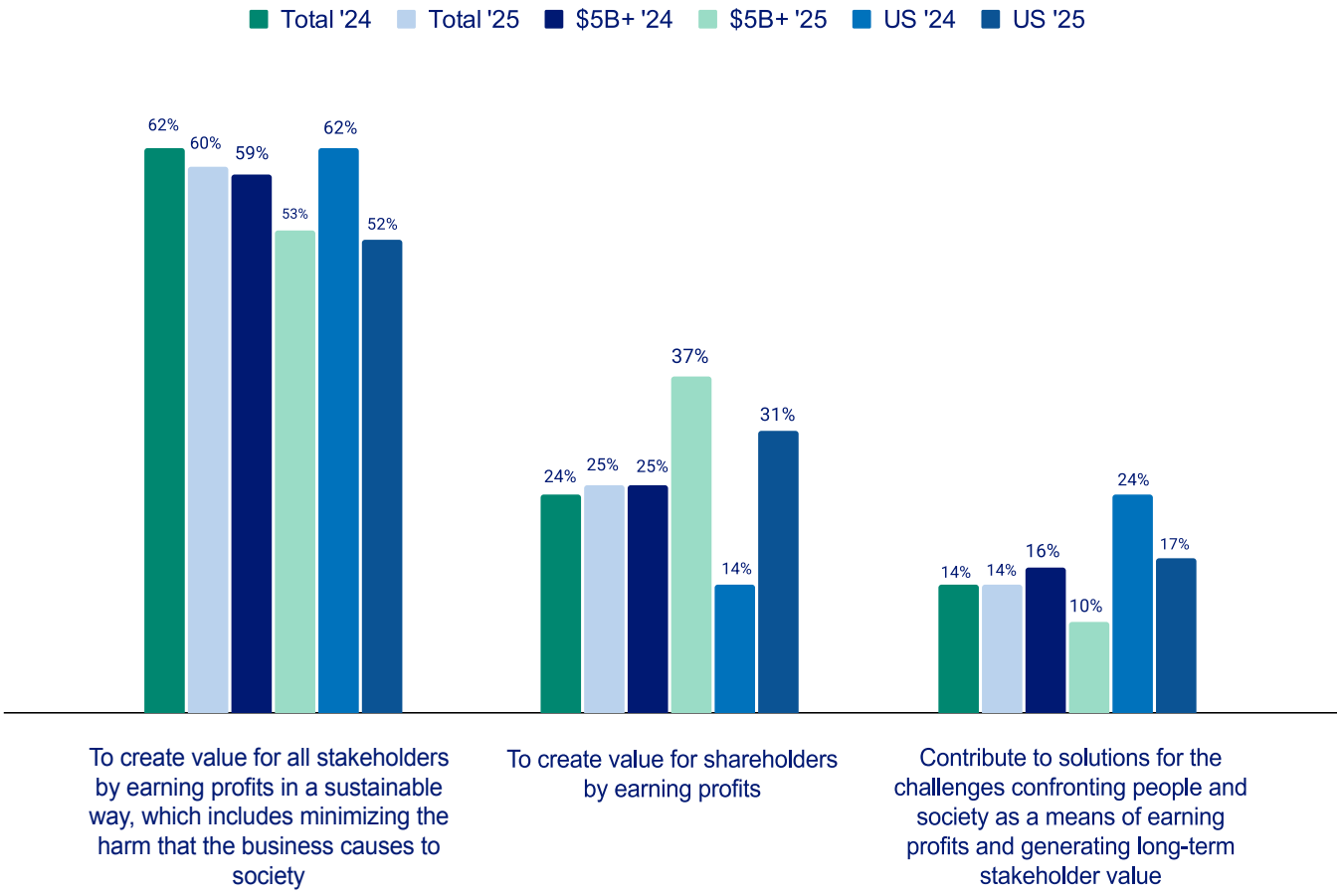
AI systems designed to be transparent, explainable, secure and aligned with organizational and societal expectations. Trustworthy AI ensures integrity of outputs, protects sensitive data and mitigates bias or unintended consequences.

Workforce Augmentation

Integrating AI tools to enhance—not replace—human work. Focuses on improving decision-making, productivity and collaboration by pairing human expertise with AI-generated insights.

Role of the Firm In Global Society Today

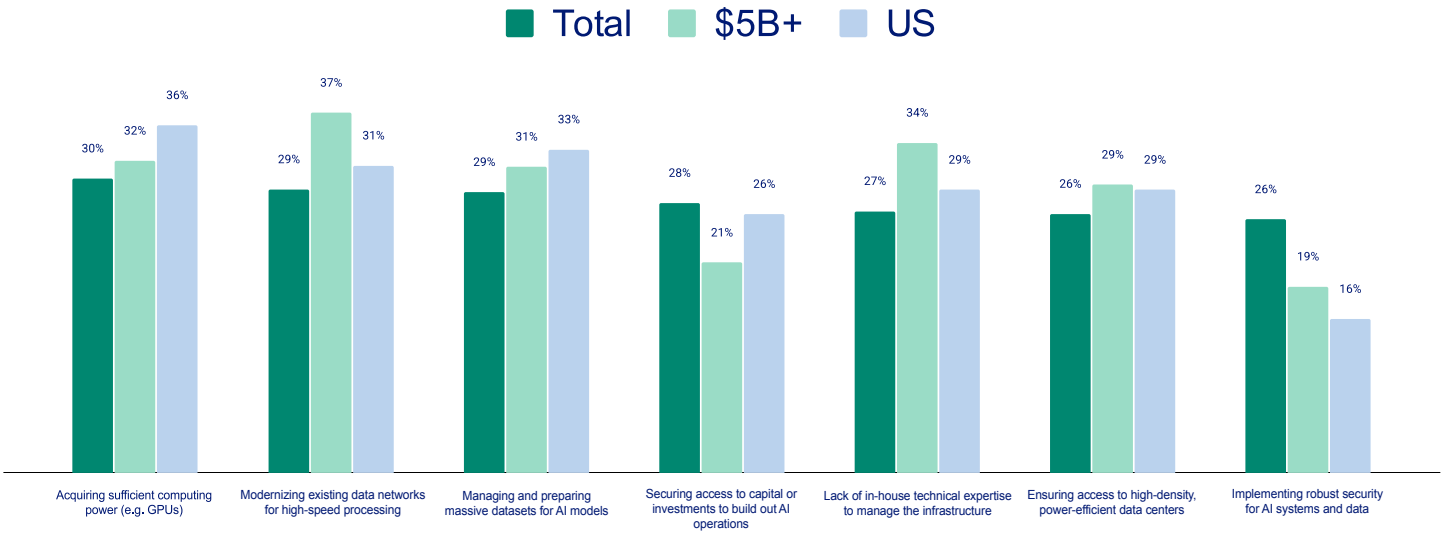
The proportion that believe that the role of the firm is to create shareholder value via profits increased dramatically from 2024 among $5B+ & U.S. respondents



WSJ Intelligence & NTT Global Study November 2025. Base: Total n=359, $5B+ n=163, US n=121. Q13. What is your organization's primary strategy for securing high-density data center capacity required for AI over the next 3-5 years?

Top AI Scaling Challenges

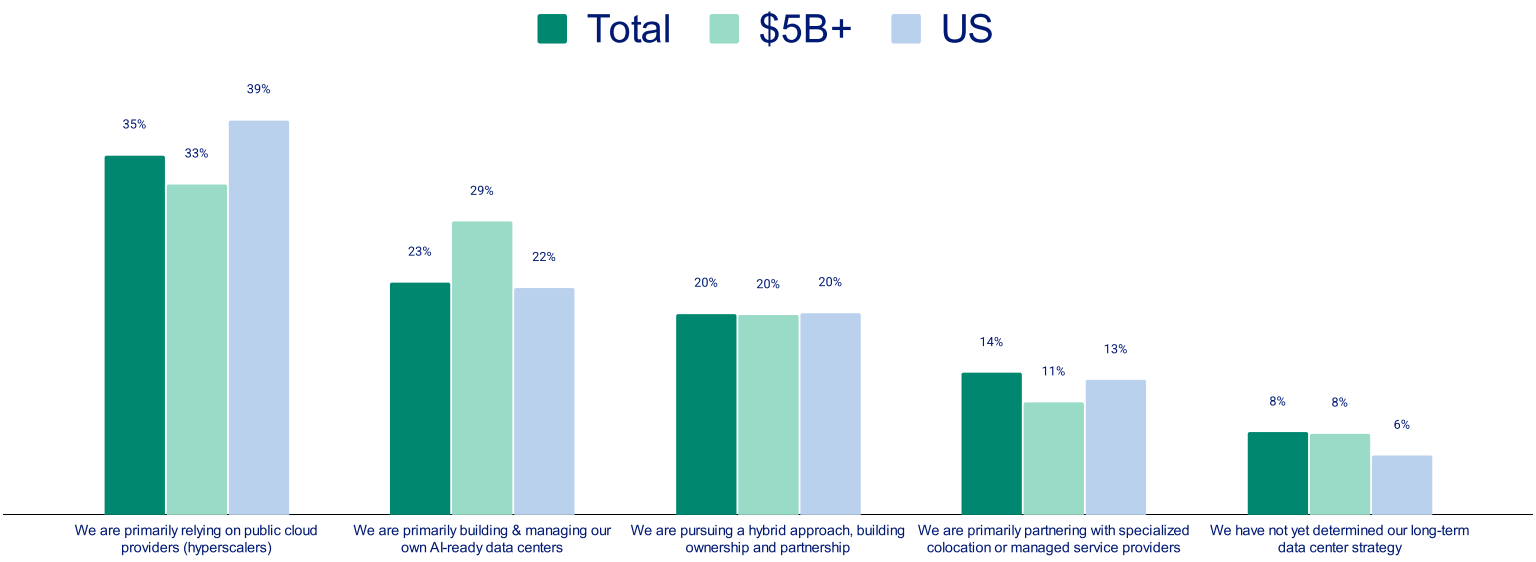
Acquiring sufficient computing power, modernizing networks for high-speed processing and preparing large datasets for AI models the top challenges to achieving AI at scale



WSJ Intelligence & NTT Global Study November 2025. Base: Total n=359, $5B+ n=163, US n=121. Q11. From a strategic perspective, which of the following are the most significant infrastructure challenges your organization faces in scaling its AI initiatives? Please select up to three.

Strategy For Securing High-Density Data Center Capacity For AI

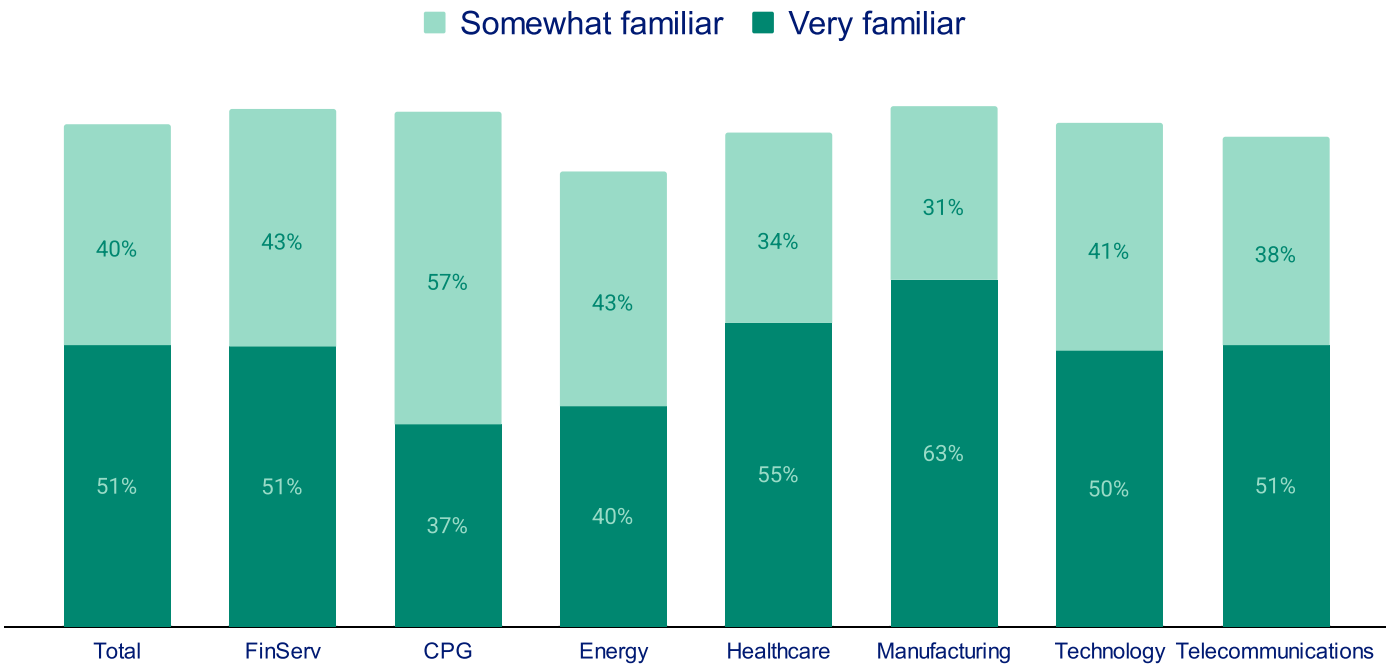
7 in 10 are using external providers for data center capability in some way: most rely on public cloud providers while less than a fifth are building their own data centers



WSJ Intelligence & NTT Global Study November 2025. Base: Total n=359, $5B+ n=163, US n=121. Q13. What is your organization's primary strategy for securing high-density data center capacity required for AI over the next 3-5 years?

Familiarity With Photonics Networks By Industry

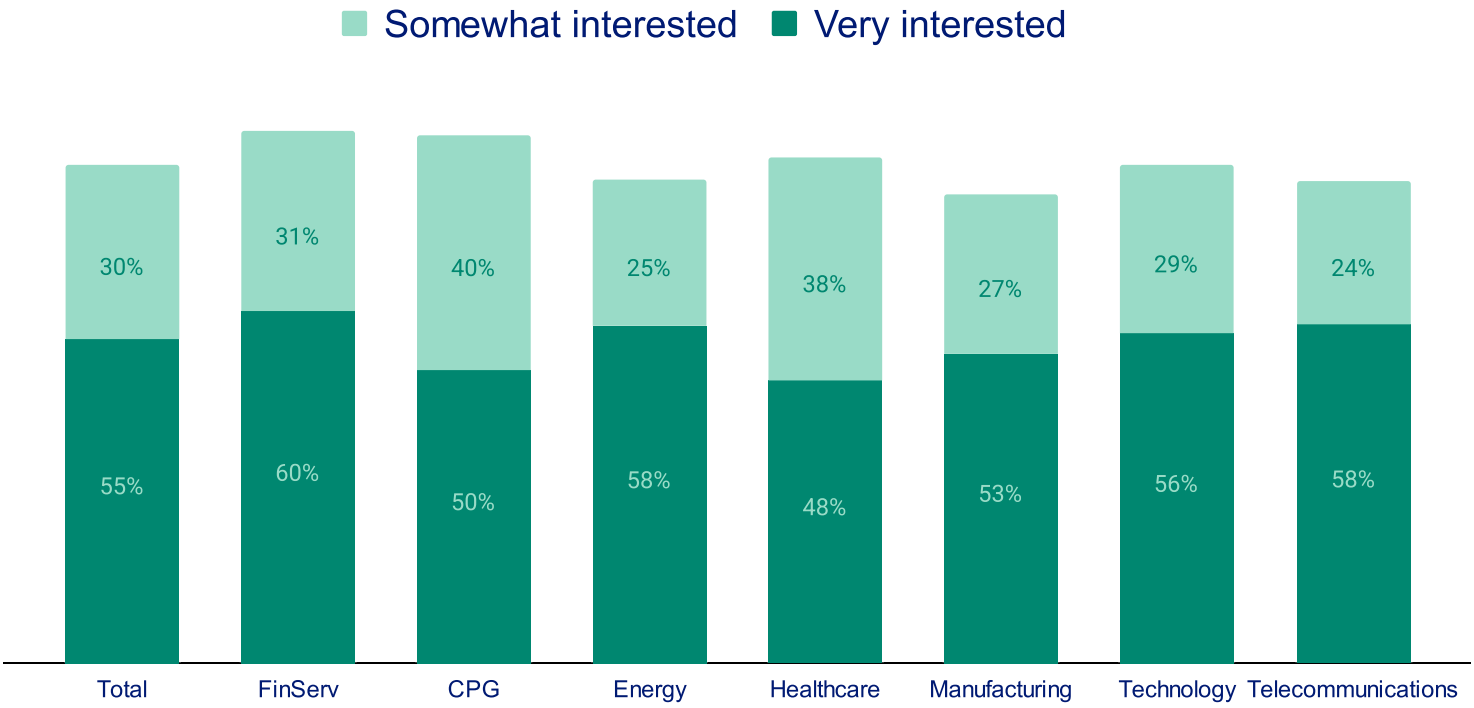
Highest total familiarity among Manufacturing, FinServ & CPG respondents



WSJ Intelligence & NTT Global Study November 2025. Base: Total 2025 n=359, Industry: Manufacturing n=70, FinServ n=65, CPG n=30, Technology n=80, Healthcare n=29, Telecommunications n=45, Energy n=40. Q16. One challenge of today's computing infrastructure is the amount of power used and heat generated, especially as AI adoption accelerates. One potential solution is the reduction of power usage by replacing electronics with photonics. How familiar are you with the role of photonics as a component for networking, data centers, computing and devices?

Interest In Photonics Networks By Industry

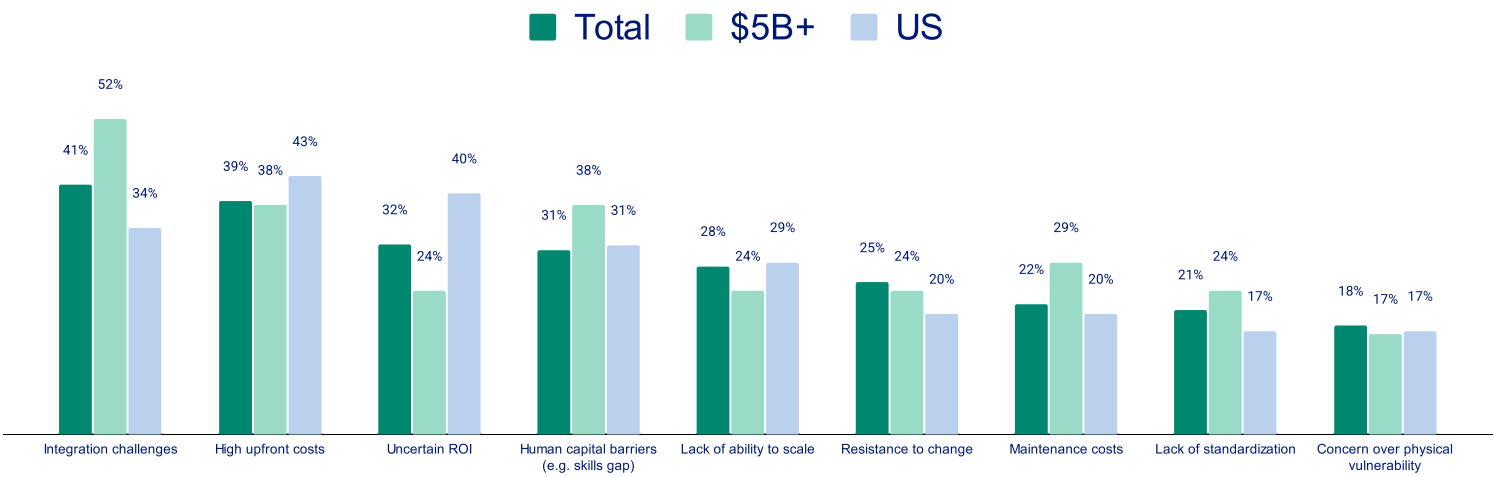
Highest total interest among FinServ & CPG respondents



WSJ Intelligence & NTT Global Study November 2025. Base: Total 2025 n=359, Industry: Manufacturing n=70, FinServ n=65, CPG n=30, Technology n=80, Healthcare n=29, Telecommunications n=45, Energy n=40. Q17. In simple terms, photonics technology brings a shift from traditional electronic signals to an era of light-based transmission between and within computers and devices, resulting in high-speed, low latency, and energy-efficient networks and computing. Photonics-based solutions are expected to enable the explosive growth of data and network demands of the AI era and will help ease the environmental pressures these demands create. Knowing the above, how interested would you be in incorporating photonics into your technology infrastructure if you found a way to scale it into your organization?

Barriers To Photonics Implementation

Well over a third cited integration challenges and high upfront costs as the top barriers to photonics implementation, a third said uncertain ROI

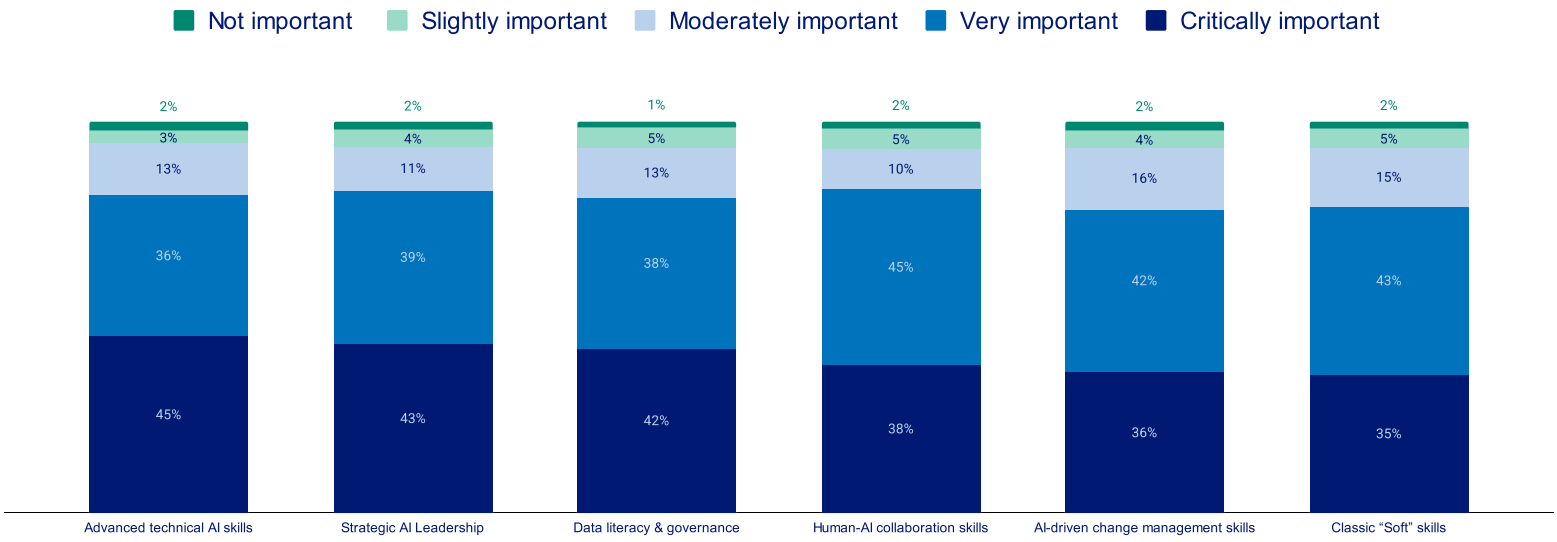


WSJ Intelligence & NTT Global Study November 2025. Base: Those interested in photonics but who plan to evaluate it in 1-3 years or have no plans to evaluate at all: Total n=111, $5B+ n=42, US n=35. Q19. You indicated an interest in photonics but are not currently using or onboarding it. Which of the following are the top barriers of implementation? Please select up to three.

Most Important Skills Categories For Workforce By 2030

Total Respondents

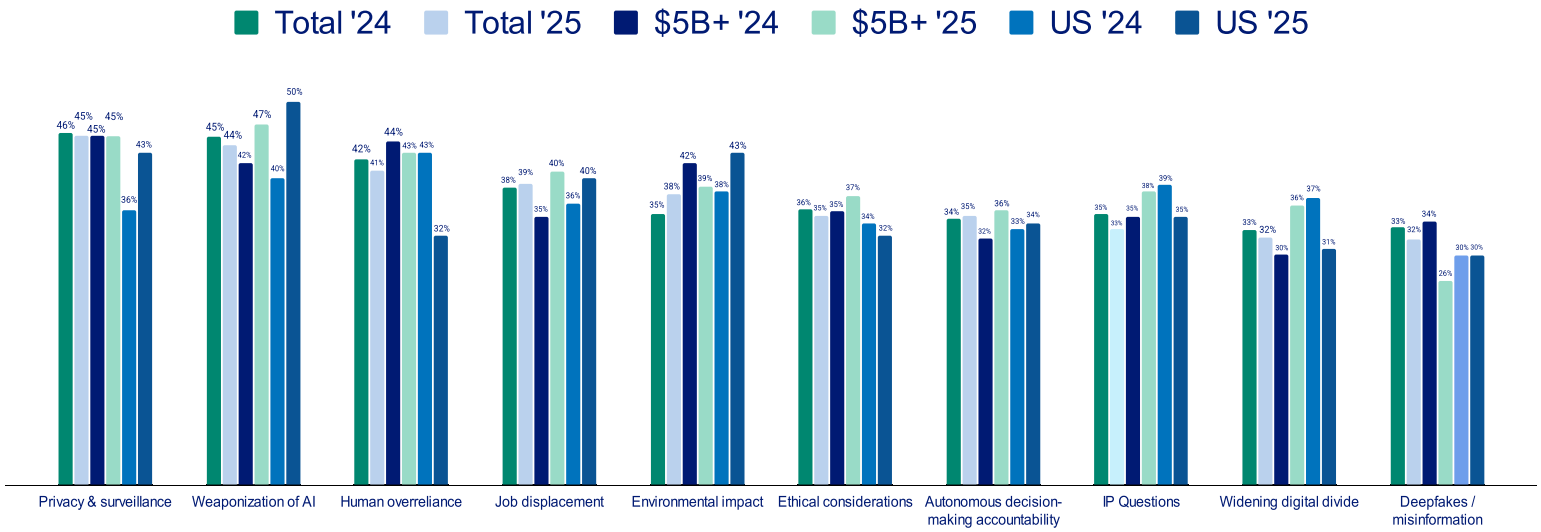
Advanced technical AI skills had the highest average level of importance—significantly higher than AI-driven management skills & classic "soft" skills at 95%; Strategic AI leadership is also highly regarded



WSJ Intelligence & NTT Global Study November 2025. Base: Total n=359. Q20. Thinking about the skills your workforce will need by 2030, please rate the importance of the following skills categories. Scales: Not important (1), slightly important (2), moderately important (3), very important (4), critically important (5). Table sorted high to low by mean value. Top 2 box = very/critically important. Repeated-measures ANOVA as omnibus test followed by post-hoc paired t-tests with Benjamini-Hochberg correction for pairwise comparisons to control the False Discovery Rate (FDR), set to 5%.

Society's Top AI Adoption Challenges

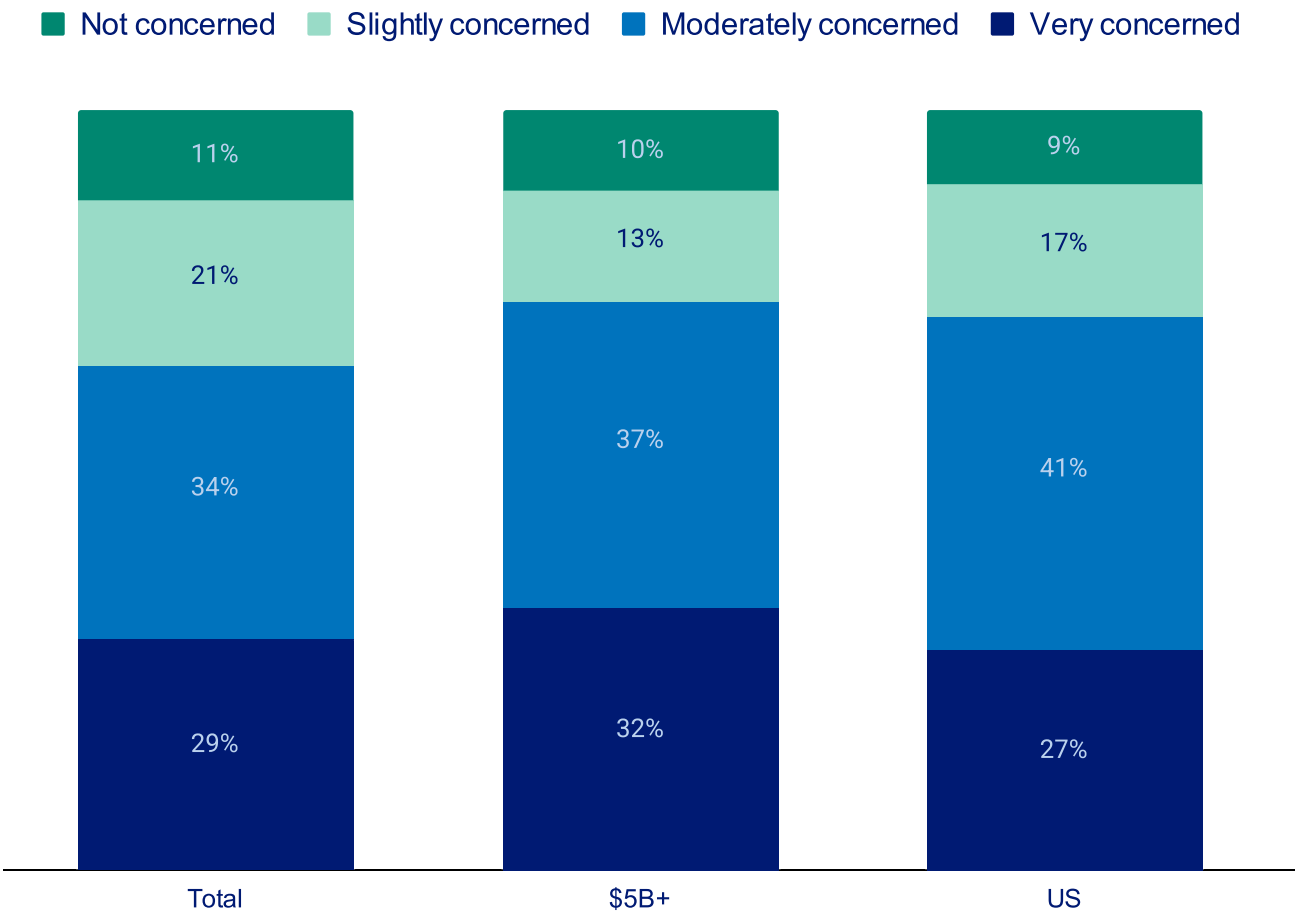
Most audiences still concerned with privacy/surveillance, the weaponization of AI & human overreliance; $5B+ & US respondents show greatest concern with weaponization of AI



WSJ Intelligence & NTT Global Study November 2025. Base: Total 2024 n=351, Total 2025 n=359, $5B+ 2024 n=144, $5B+ 2025 n=163, US 2024 n=121, US 2025 n=121. Q34. Now thinking about society as a whole, which of the following do you think are the most important challenges facing the adoption of safe, secure and trustworthy AI? Please select up to five.

Level Of Concern With Shadow AI At Firm

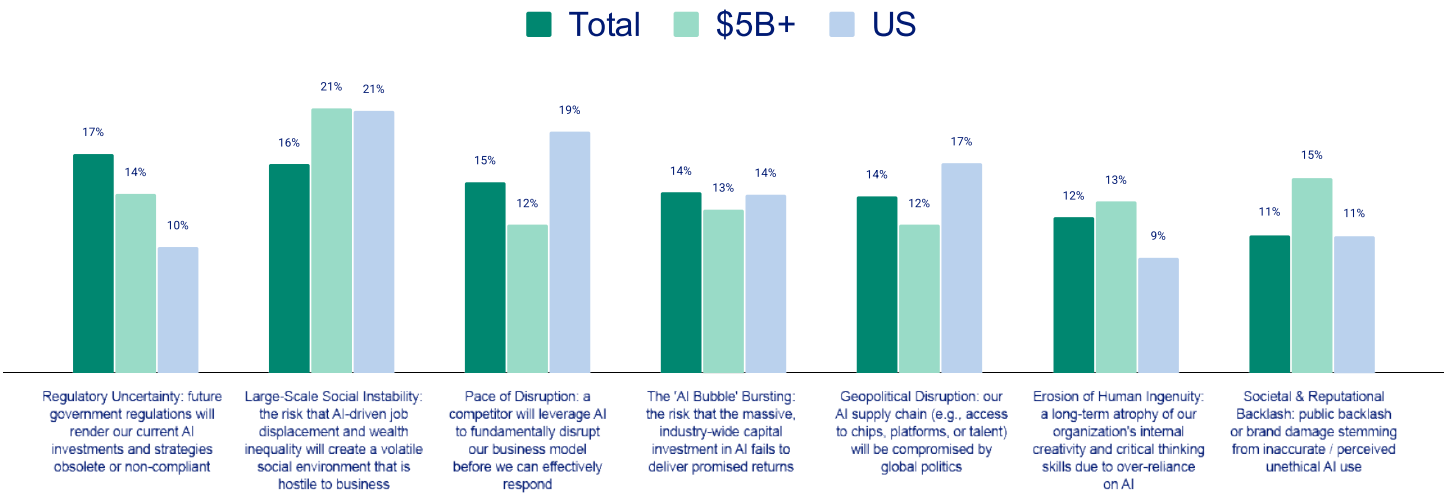
Eight in 10 execs concerned with Shadow AI use at their firm



WSJ Intelligence & NTT Global Study November 2025. Base: Total n=359, $5B+ n=163, US n=121, Those concerned with Shadow AI use at their firm: Total n=301. Q27. How concerned are you about shadow AI within your organization? Q28. You indicated you are concerned about shadow AI at your organization. Which of the following potential consequences pose the most significant risks for your organization? Please select up to three. Q29. You indicated you are concerned about shadow AI at your organization. Which of the following ways does your firm try and manage the use of shadow AI? Please select up to three.

AI-Related Risk Causing Greatest Long-Term Concern At Firm

Total respondents lament a future where government regulations will adversely impact AI investments



WSJ Intelligence & NTT Global Study November 2025. Base: Total n=359, $5B+ n=163, US n=121. Q35. Finally, when you consider the long-term future, which of the following potential AI-related risks is the greatest concern for your organization's resilience and strategic position? Please select one.