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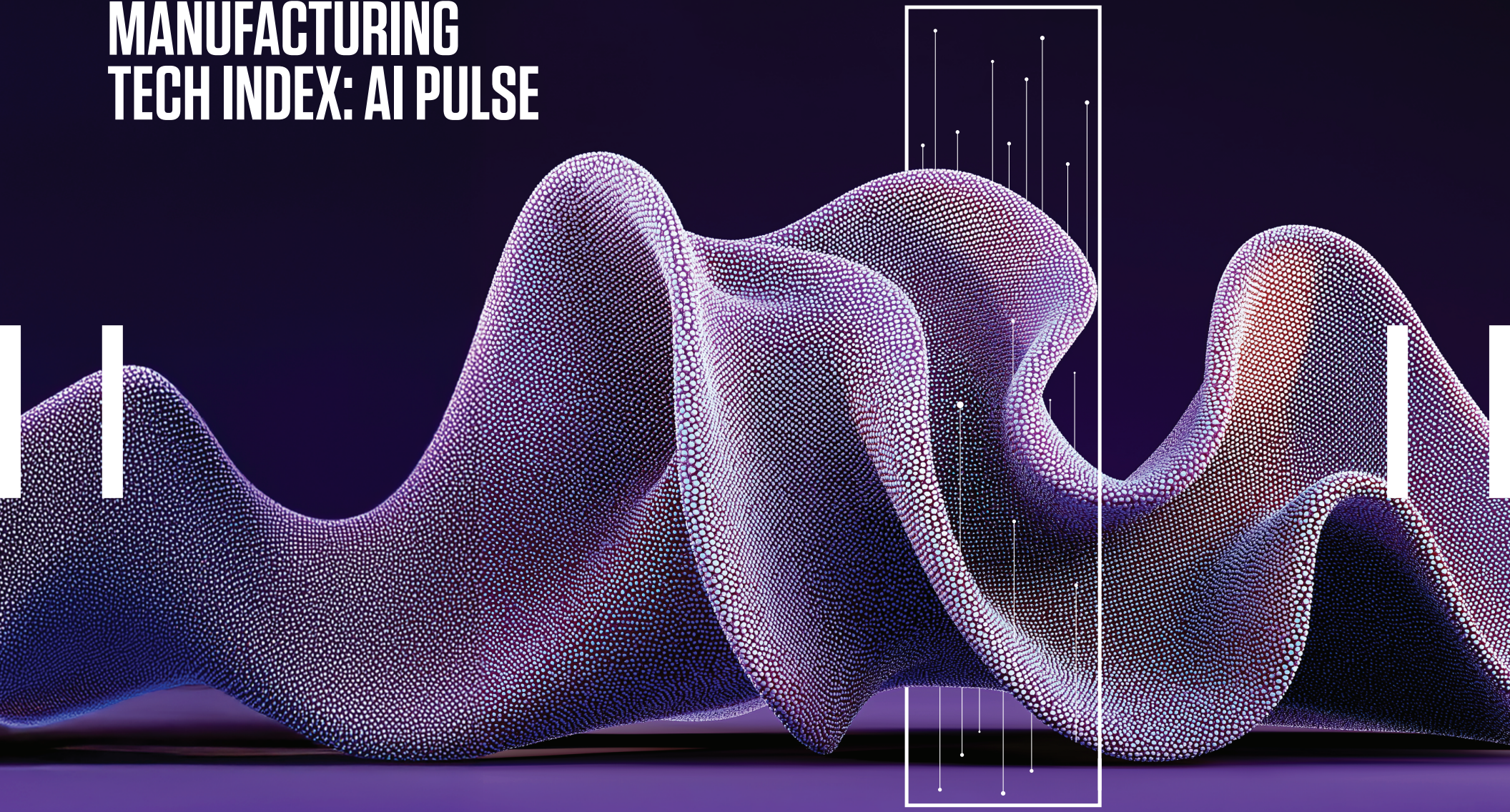
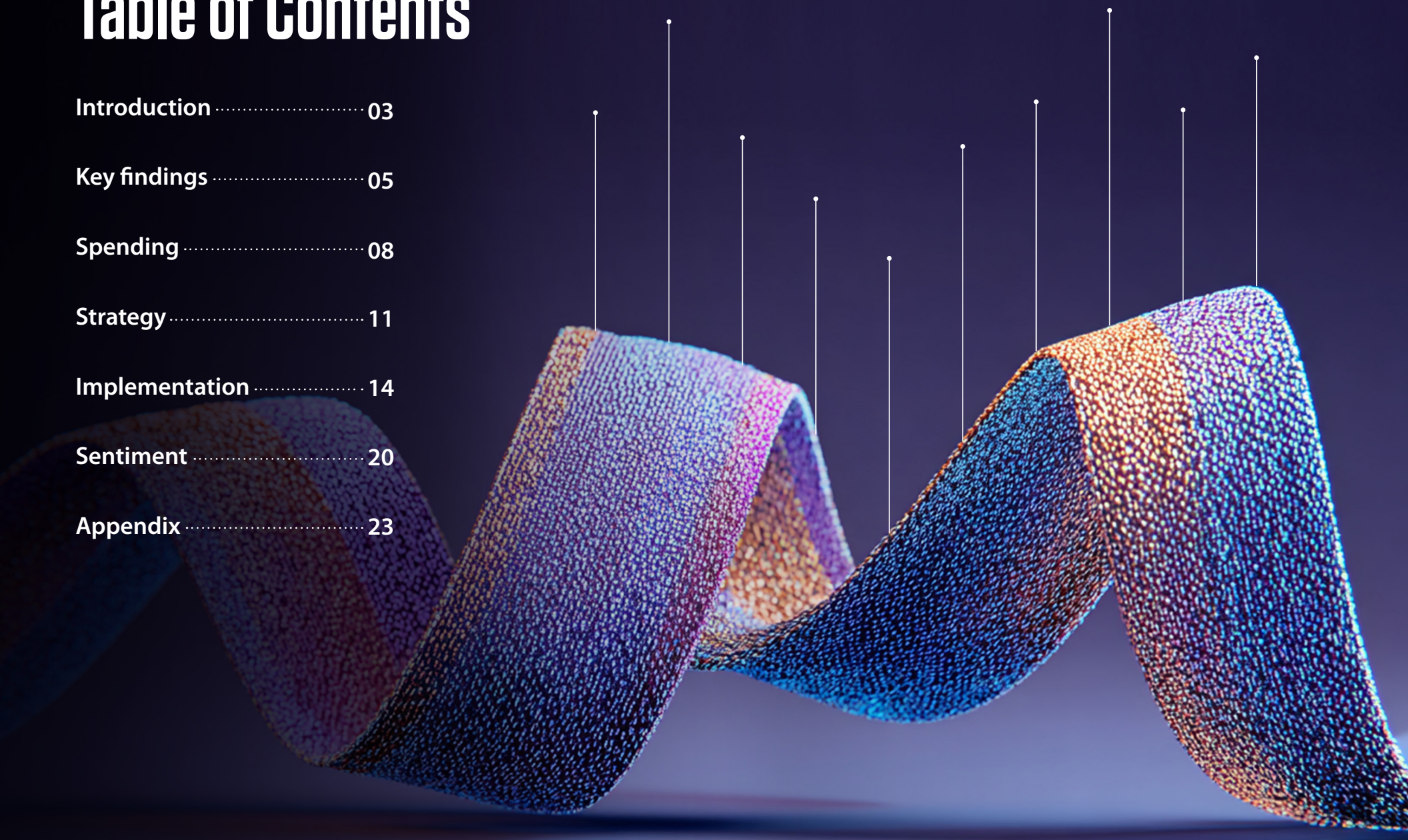
INFOSYS MANUFACTURING TECH INDEX: AI PULSE



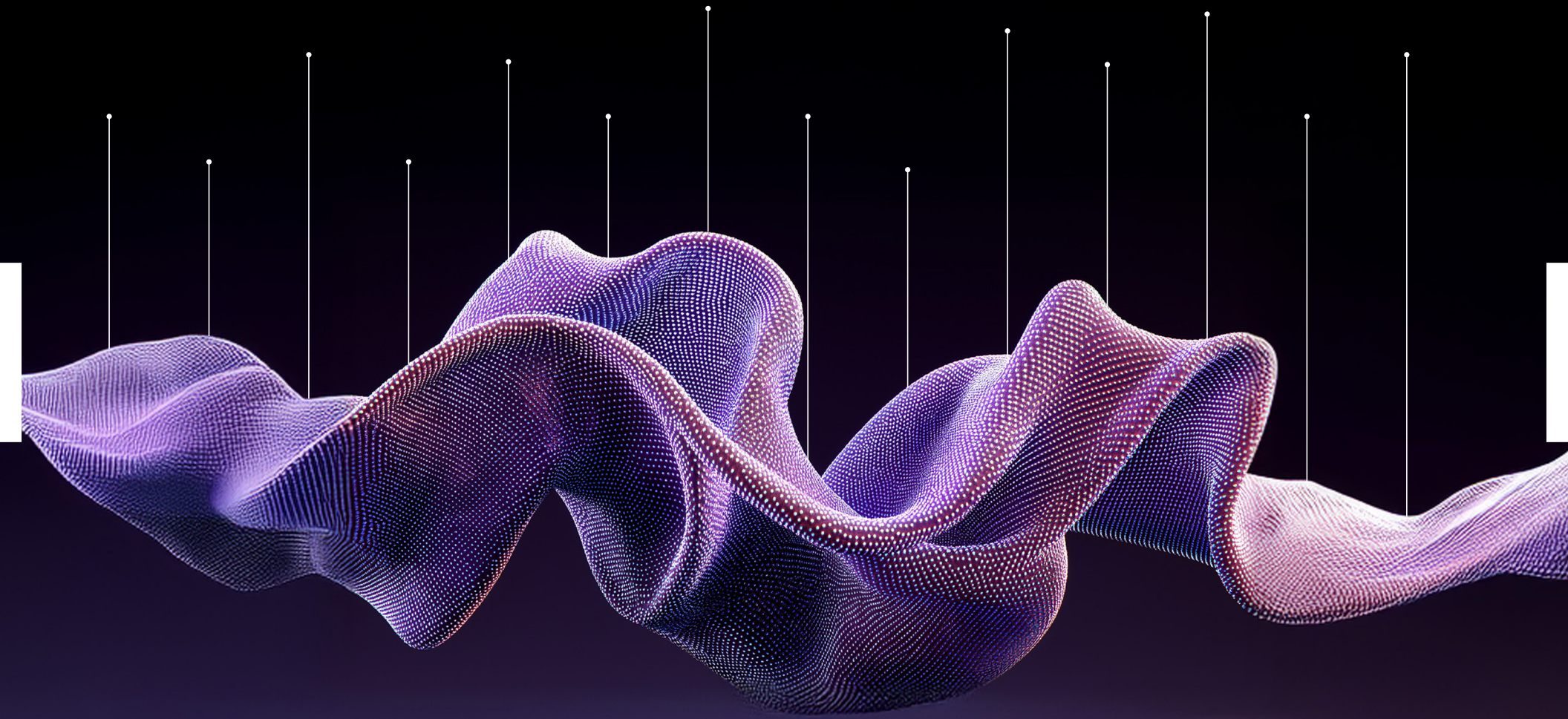
Infosys® | Knowledge Institute

Volume 1 – February 2026

Table of Contents



Introduction



Jasmeet Singh

Executive Vice President and
Global Head, Manufacturing

Artificial intelligence (AI) is at the forefront of manufacturing transformation. The question is no longer whether it will reshape operations but how quickly and confidently manufacturers will embed it into their business.

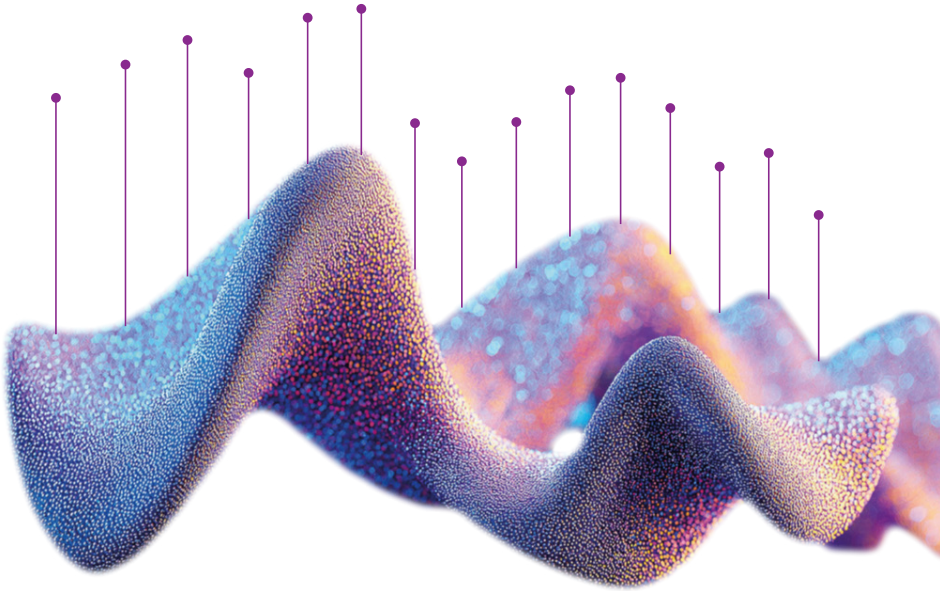
In this initial Manufacturing Tech Index, Infosys explores enterprise AI usage and trends shaping their journey. Between October and November 2025, we surveyed 650 executives from large manufacturers, uncovering several compelling findings.

The findings show a clear evolution in AI deployment. Companies have moved beyond pilots, committing over $2 million per initiative and deploying many initiatives across multiple functions. However, most of these efforts are upstream in the planning and pilot stages, highlighting a contested mix of ambition and persistent challenges to scale AI in complex operational environments.

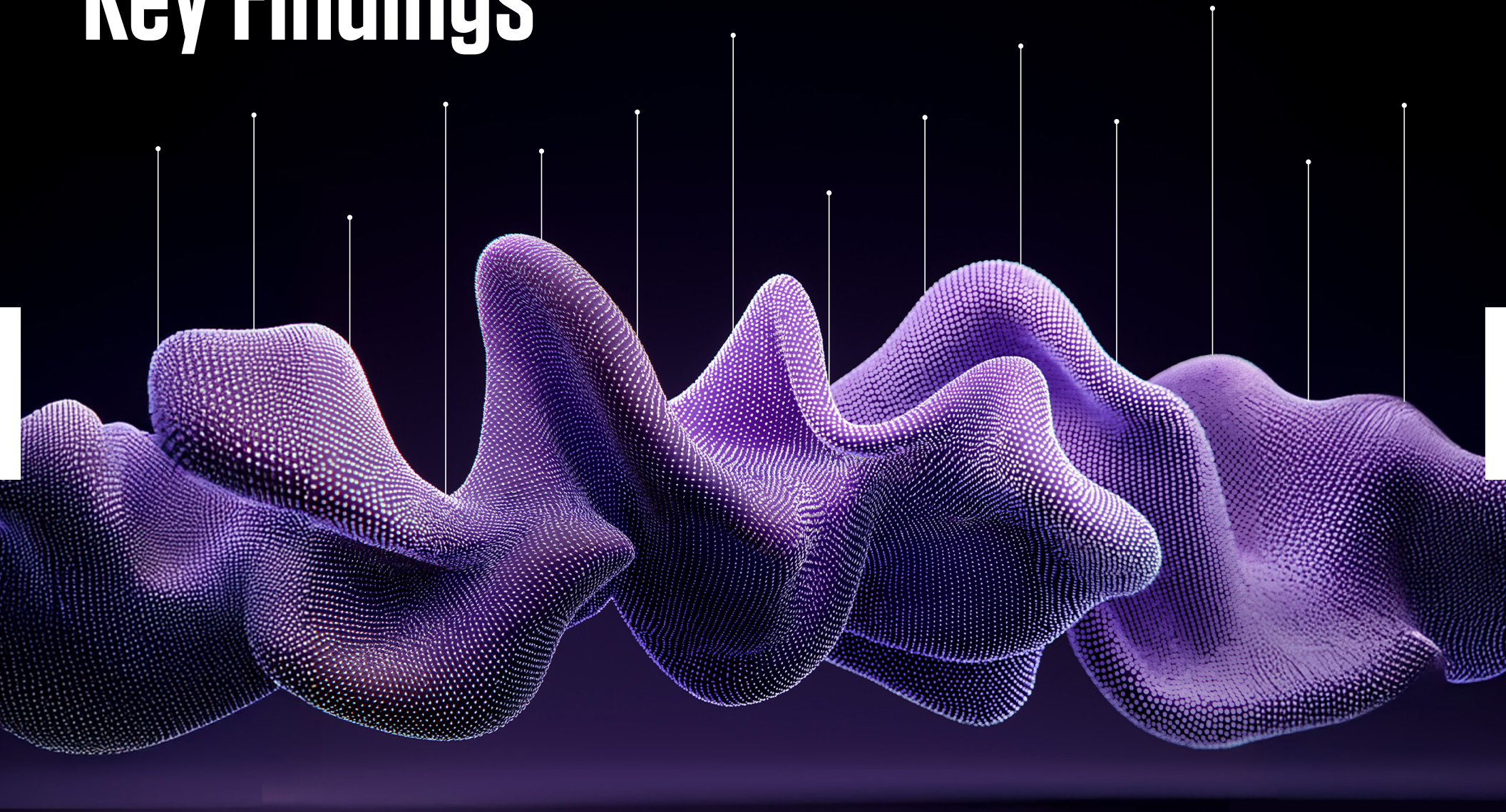
A striking dichotomy emerges in cybersecurity. While this area attracts the most AI implementations, it also stands out as a primary barrier to scaling AI, along with data challenges which continue to persist. Additionally, companies that embed AI into their strategy tend to pursue more initiatives, establishing a stronger foundation and deployment readiness than those that don't.

This research also reveals two distinct perspectives on AI: Nearly as many respondents view AI as transformational as those who view it as overstated, underscoring a wide variety of maturity levels and expectations across the industry.

Manufacturers' confidence in AI is rising as they move from experimentation to operationalization. The next frontier requires integrating AI into core processes and addressing foundational challenges such as cybersecurity and data readiness. We will continue to track these trends and provide insights. To discuss the research or explore how you can accelerate your AI journey, we invite you to connect.



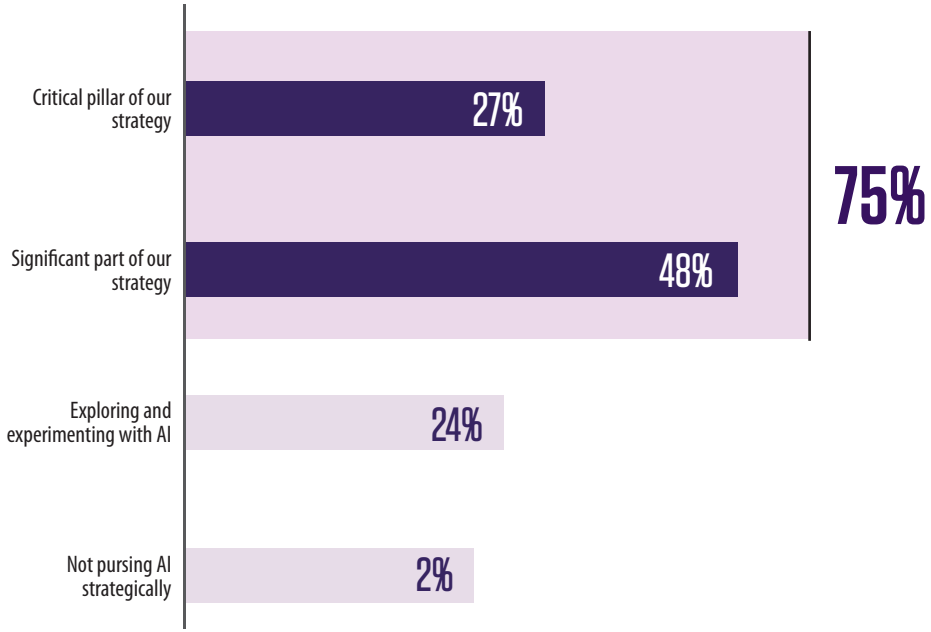
Key Findings



AI is central to strategy, yet doesn't guarantee success

AI is no longer a differentiator — it is core to manufacturing strategy

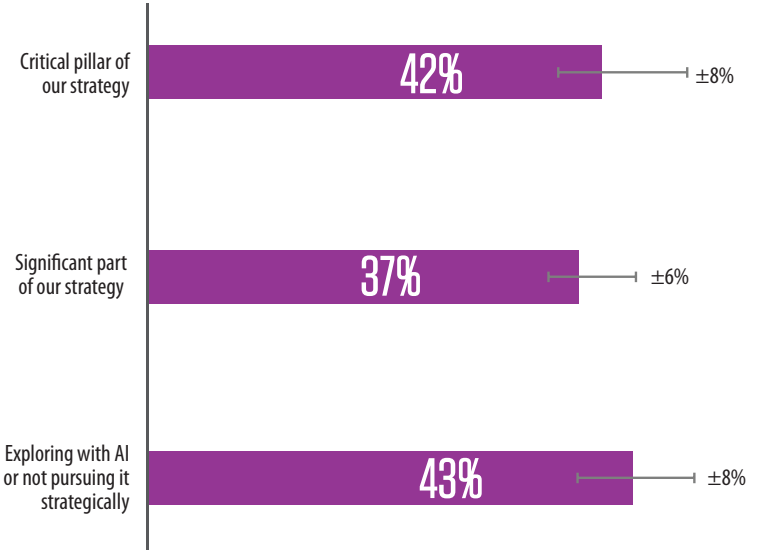
AI strategy by percentage of respondents



N = 650, values do not total to 100 due to rounding.

Strategic focus on AI doesn't translate to greater success

Percentage of successful AI initiatives by strategy

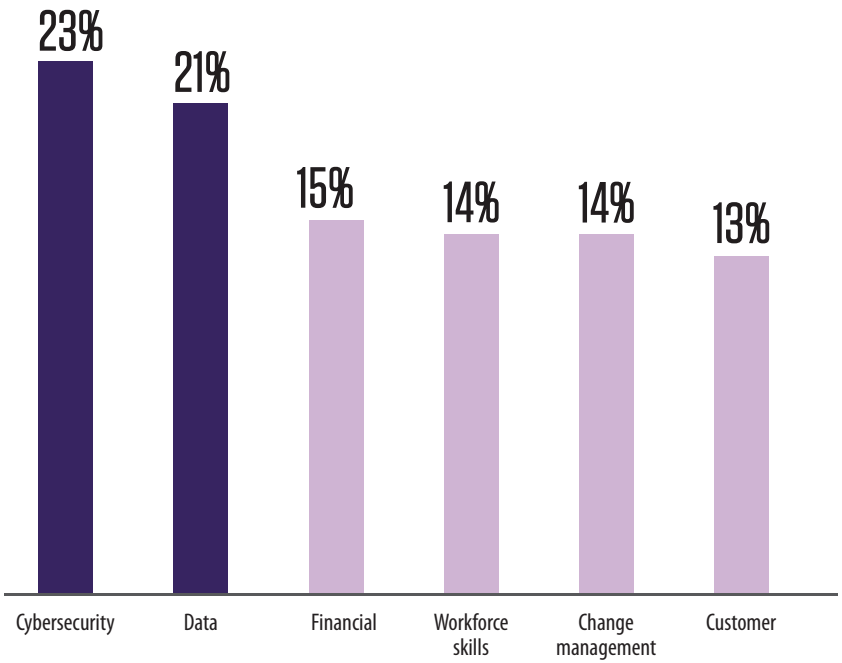


N = 576, where N is the number of respondents who indicated that they have successful AI initiatives.
Error bars indicate the margin of error.

Cybersecurity top use case; polarized sentiment on AI impact

Cybersecurity: Top AI use case, yet also largest barrier

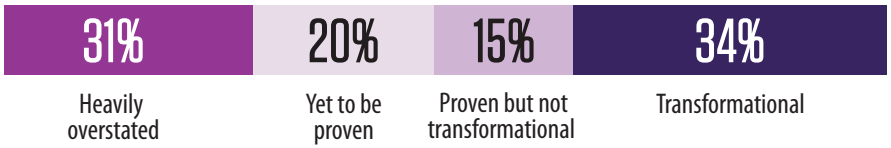
Top AI scaling barrier by percentage of respondents



N = 650

Polarized sentiment: Manufacturers more likely to view AI as transformative or overstated — in equal numbers

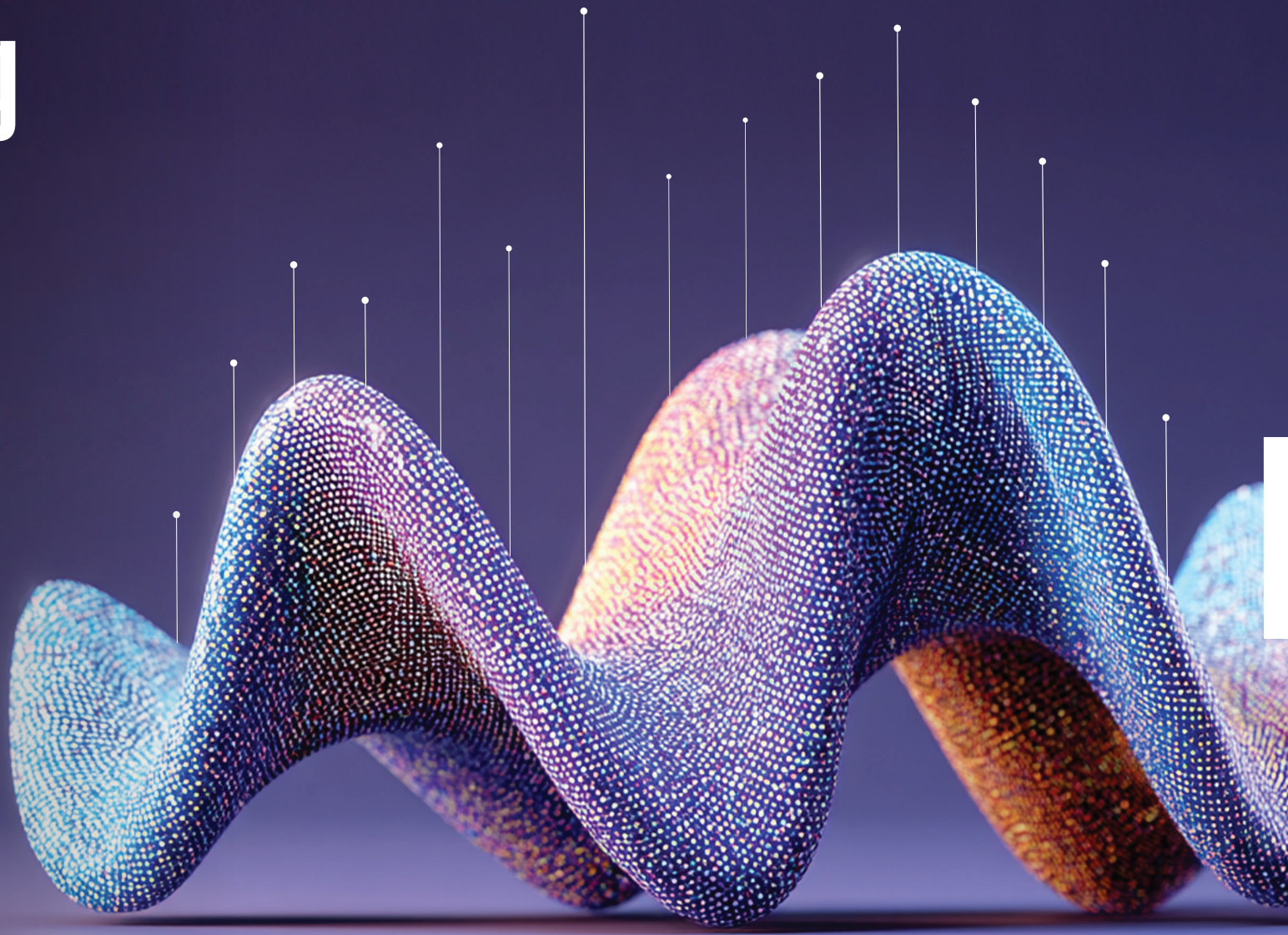
AI sentiment by percentage of respondents



N = 650

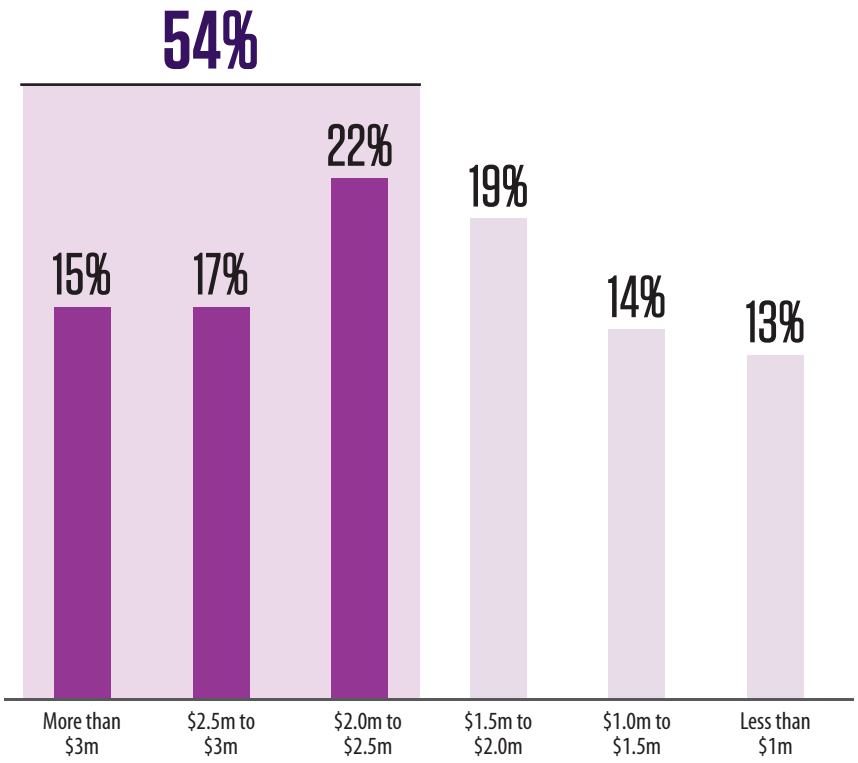
Spending

Accelerating investment, external partnerships



Over half of manufacturers invest greater than $2 million per AI initiative

AI spending per initiative by percentage of respondents



N = 650

AI investment reflects operational commitment

A median investment of $2 million to $2.5 million per AI initiative reflects clear commitment to deploying AI at production scale. Together with our previous research, this represents accelerated growth, especially relative to service industries which were quicker to adopt enterprise AI.

This also signals that AI requires the same capital discipline, governance, and value realization rigor applied to other core operational programs. Regardless of strategic commitment, 54% of manufacturers allocate over $2 million per initiative.

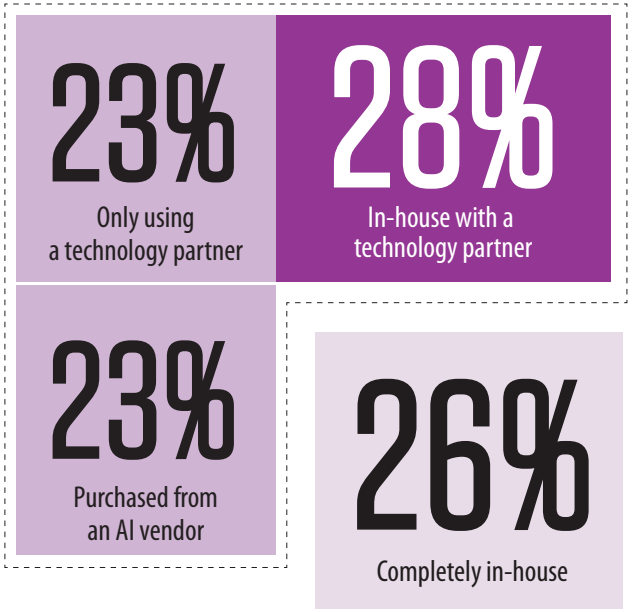
AI in manufacturing is not a lightweight software experiment

Unlike enterprise IT or analytics use cases, cost isn't driven solely from model acquisition, but from embedding into physical operations and from data engineering, system integration, and workforce enablement. Complex operational applications with multiple data points and connected systems demand higher AI investment.

AI investment requires the same capital discipline and value gates used for automation and advanced process control.

Manufacturers partner externally to accelerate AI success

Average percentage of AI implementations by AI sourcing approach



N = 650

Manufacturers overwhelmingly rely on external partners and vendors

Nearly 75% of manufacturers need an external technology partner to meet their AI needs, while only a quarter build AI in-house. Companies source AI to best suit their needs, with each approach offering distinct advantages.

In-house development (26%) enables stronger control of intellectual property, tighter integration with core operations, and benefits walled garden use cases. However, this approach requires significant sustained investment and deep internal AI expertise, which most companies simply don't have.

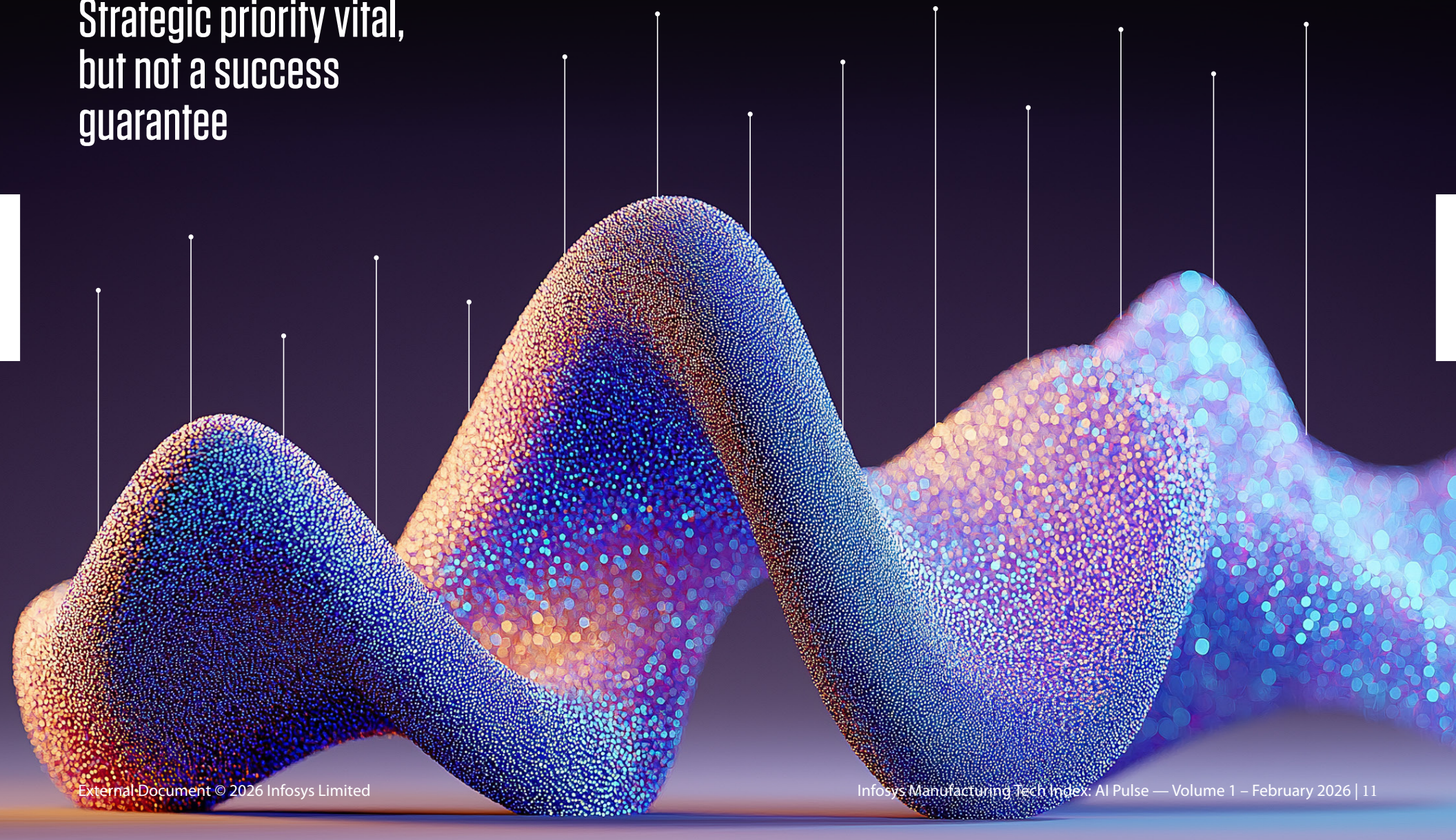
External and hybrid models (74%) extend access to specialized expertise and overcome talent or capability gaps, accelerating deployment and scale. This is not simply turnkey services, as savvy leaders require a "partner to learn" model so they build internal expertise over time.

Strategic choice influenced by organizational readiness

Our Enterprise AI readiness research found that only 2% of companies are ready to scale AI. Lack of readiness — especially in areas of data management, governance, and talent — drive companies to seek external expertise in partners and vendors.

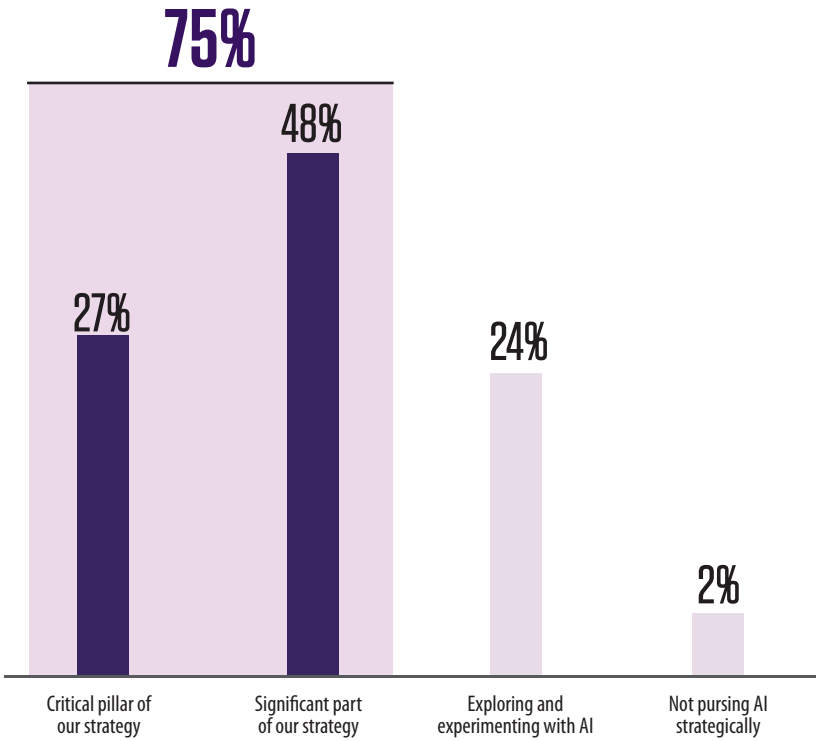
Strategy

Strategic priority vital, but not a success guarantee



AI is now core to manufacturing strategy

AI strategy by percentage of respondents



N = 650, percentages do not total to 100 due to rounding.

Most manufacturers have shifted from AI experimentation to strategic adoption

With 75% of manufacturers embedding AI into strategy, AI is no longer peripheral to strategic decisions. The next leadership challenge is to convert this strategic commitment into enduring operational advantage at scale.

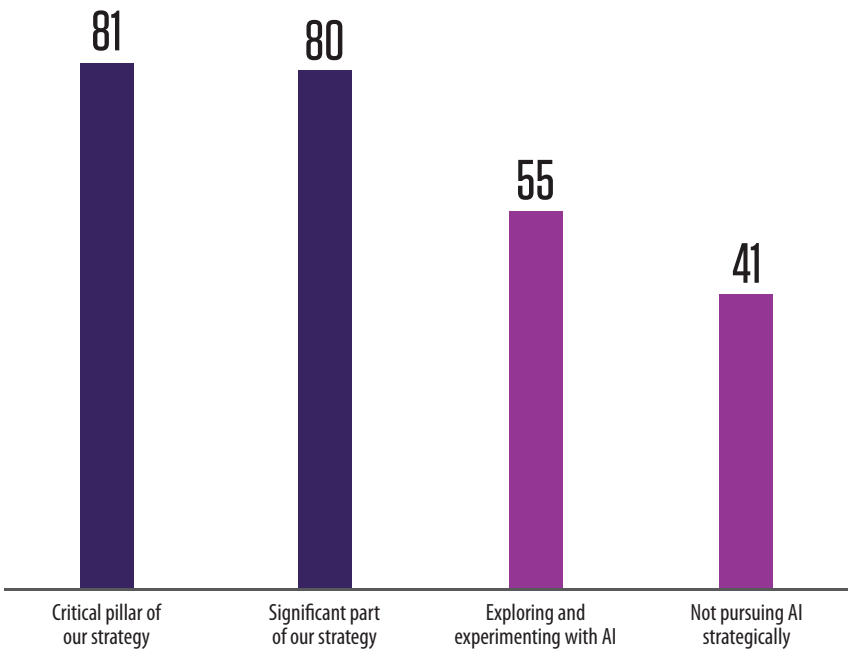
Operational realities drive this shift

Manufacturers face rising cost pressures, workforce constraints, and operational complexity that is outpacing traditional automation and human decision-making. AI is no longer a differentiator it is essential to reduce unit costs, respond to changes, and enable quicker innovation cycles.

AI is now a strategic imperative, but execution will define winners — Manufacturers must move beyond strategic intent to operational integration, aligning AI with decision flows, capital allocation, and governance.

Strategic commitment, demonstrated through action

Average number of AI initiatives by AI strategy



N = 650

Strategic AI intent translates to execution

Manufacturers that embed AI into strategy launch 80 initiatives on average, significantly more than peers. More initiatives indicates shared platforms, standardized architectures, and established funding processes.

These factors promote faster experimentation, increased initiative throughput, and a learning advantage that compounds with each new initiative.

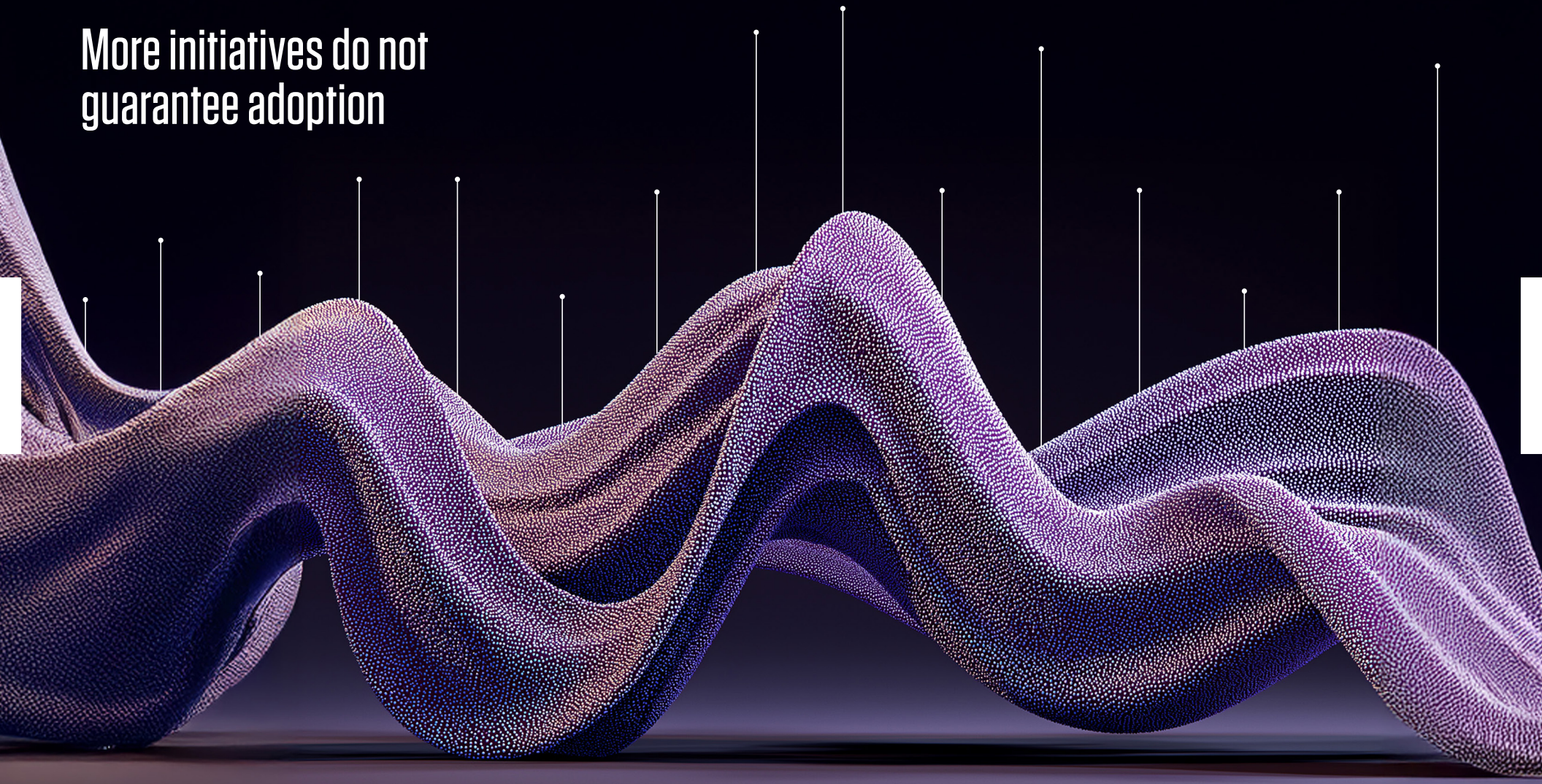
Higher activity builds momentum to value

Companies that achieve early results reinvest and expand successful AI use cases. Another consultancy, McKinsey, echoes our findings. Companies identified as "AI high performers" — those reporting the strongest impact — run more AI initiatives, widening the gap with slower movers.

More initiatives launched does not equate to better short- term outcomes, but does indicate that a company is investing, learning, and executing to drive long-term AI success.

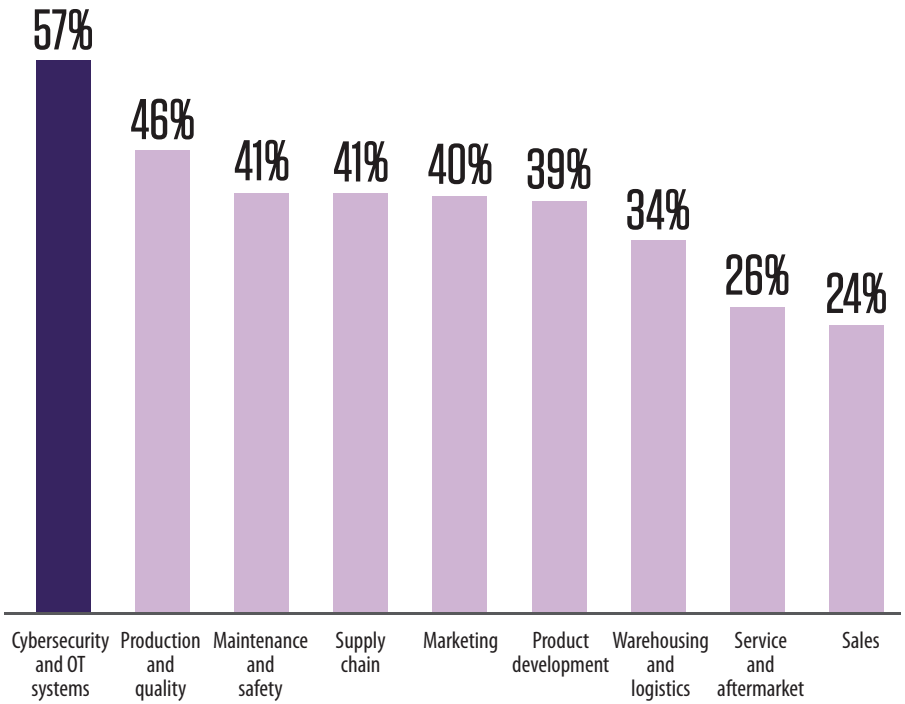
Implementation

More initiatives do not guarantee adoption



Cybersecurity and OT systems lead as top AI use cases

AI implementation areas by percentage of respondents



N = 650

Cybersecurity prioritized

Nearly 60% of manufacturers in our survey use AI in cybersecurity and operations technology (OT) systems, followed by nearly 50% in production and quality. Manufacturers prioritize AI in these areas, where data is structured and impact is immediate.

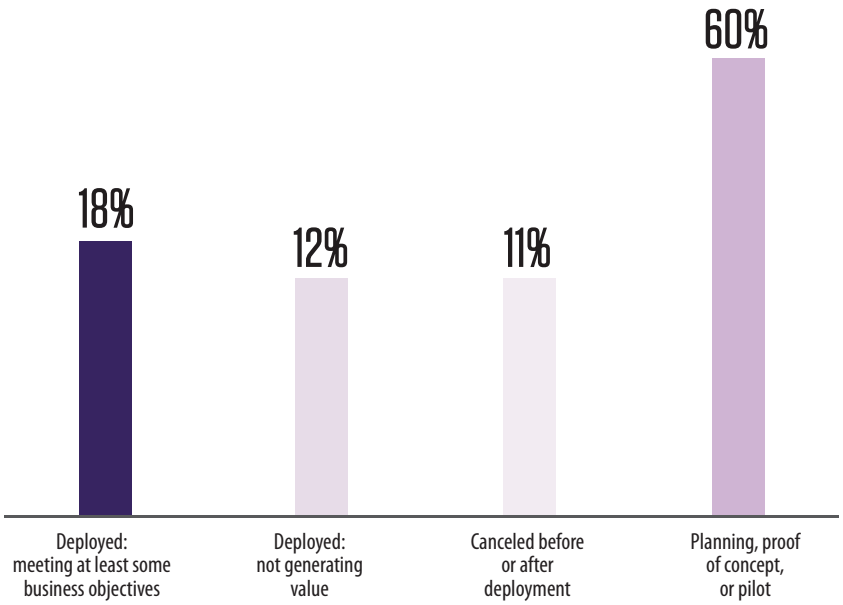
AI adoption to meet rising customer expectations

From our experience, clients have started to launch AI in sales, service, and aftermarket to meet customer experiences. Data from these initiatives is cycled into research and development and product development to meet aftermarket expectations for improved uptime, productivity, and equipment life.

Jaguar Land Rover suffered a cyberattack, which disrupted global production and leaked sensitive data. These incidents are expected to increase as digital and physical production systems grow and merge. AI offers observation, evaluation, and intervention to assist humans to continuously monitor IT and OT to detect weaknesses and threats before they escalate to large-scale operational failures.

Manufacturers prime the pump, yet slow to realize value from AI

Percentage of initiatives by implementation stage



N = 650, percentages do not total to 100 due to rounding.

1 in 5 AI initiatives have started to meet business objectives

Another 12% are deployed but not yet creating value, and an equal number are cancelled.

Most AI initiatives are in early stages

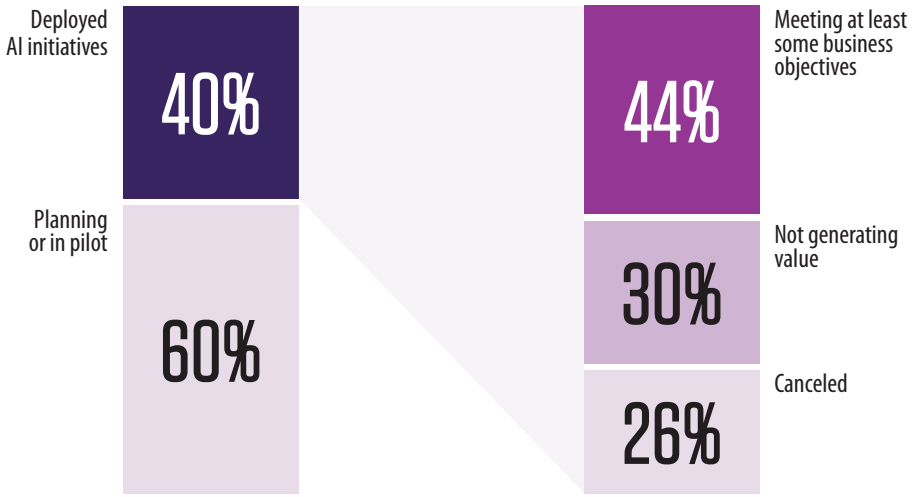
Manufacturers overall are investing heavily in AI and embedding AI in company strategy.

The current makeup resembles a venture portfolio, hoping for a few big wins to make up for many that fail to deliver return on investment (ROI). This mirrors our other enterprise AI research, which uncovered a similar trend across industries.

To achieve more value from AI, companies must address cybersecurity and data challenges and prepare their workforce to use AI. Our previous research on AI business value showed the importance of workforce enablement in AI success.

Deployed initiatives reflect a capital portfolio

Percentage of AI initiatives by implementation stage



N = 47,640, where *N* is the number of AI initiatives.

Value achievement remains uneven

44% of deployed initiatives meet some business objectives and demonstrate AI can create value. The investment results resemble a venture capital (VC) portfolio, with a few huge successes several creating value, and many failures. Specifically, one quarter of deployed initiatives are cancelled and 30% do not deliver value.

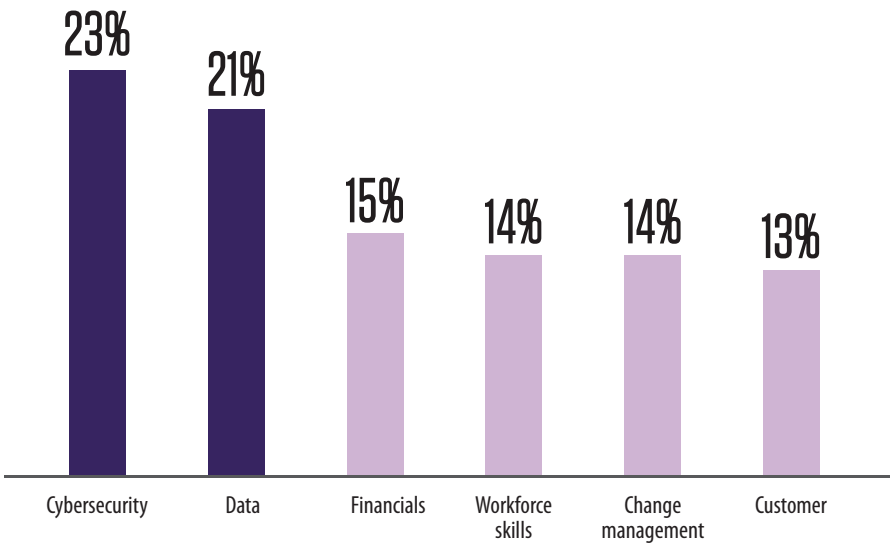
This is not surprising, given that AI is still maturing in manufacturing applications. Like a VC portfolio, success demands intense early focus, tighter stage-gate criteria, and the courage to kill projects and reinvest elsewhere.

Behind stage-gate success

Our research shows that advancing AI initiatives through defined stage gates is a challenge and requires more than initial enthusiasm. Execution discipline, governance, and adoption practices convert promise into sustained value.

Cybersecurity and data challenges top AI scaling barriers

Top AI scaling barrier by percentage of respondents



N = 650

Cybersecurity and data barriers hold back scale

The cost of AI is cited as one of the biggest blockers to AI pursuits for many companies, but not for manufacturers. Cybersecurity (23%) and data (21%) have emerged as top two barriers to AI scaling.

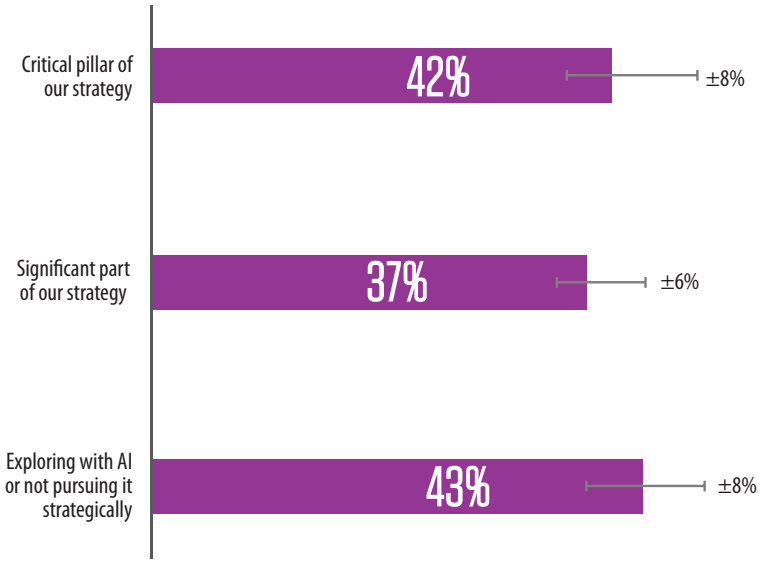
OT systems raise the stakes for governance

As IT and OT converge, manufacturers must establish unified visibility and control before expanding AI autonomy, or cybersecurity will continue to constrain scale. Start in IT and the IT-OT seam – triage vulnerabilities, summarize incidents, and recommend risk remediation – to build agentic capabilities.

AI strategic focus necessary, but not sufficient – execution matters

Strategic focus on AI doesn't translate to higher success

Percentage of successful AI initiatives by strategy



N = 576, where N is the number of respondents who indicated that they have successful AI initiatives.
Error bars indicate the margin of error.

Higher volume but not greater success

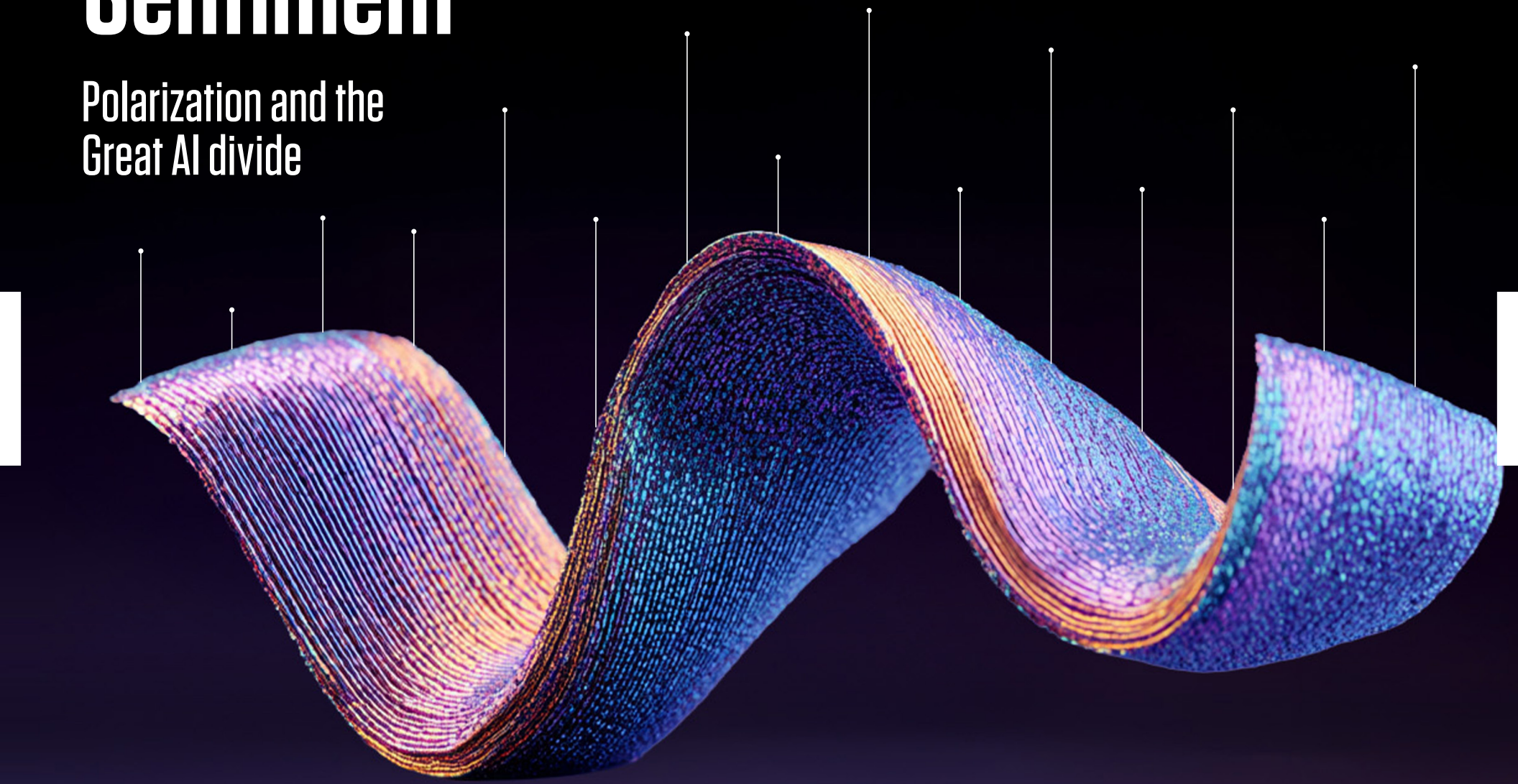
Manufacturers can declare AI a strategic priority yet not achieve AI objectives. On average, strategically committed manufacturers report more AI initiatives but not a higher success rate.

Value achievement depends more on execution capability than strategic intent

Our AI Business Value Radar found that a minority of AI use cases deliver on business objectives. Companies that achieve greater success focus on execution infrastructure, such as their operating model, data architecture, and workforce readiness.

Sentiment

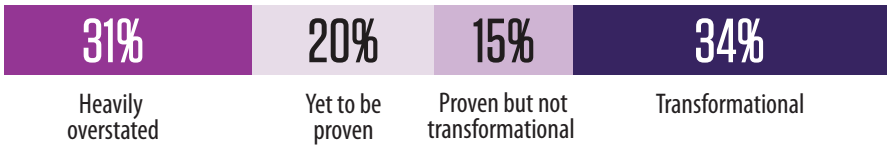
Polarization and the Great AI divide



The great divide on AI value

Polarized sentiment: Manufacturers more likely to view AI as transformative or overstated — in equal numbers

AI sentiment by percentage of respondents



N = 650

Optimism runs high

Nearly 70% of our respondents believe AI has value, whether it's proven or not. Nearly one-third of respondents believe value from AI is transformational, but just as many (31%) believe that AI value is heavily overstated.

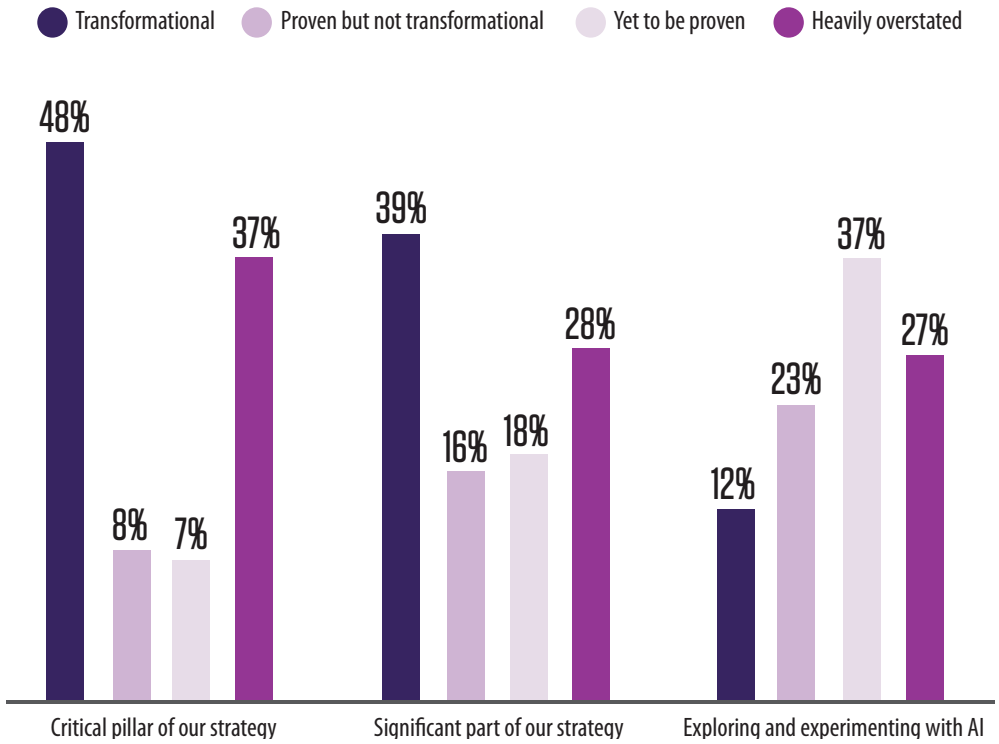
High investment concentrates value risk at the initiative level

Traditional value realization frameworks, which rely on aggregate ROI, fall short for AI initiatives. When AI creates value, it is often uneven and context-specific, especially when initiatives are deeply embedded in core production processes and plant operations.

When each initiative possibly represents a multimillion-dollar investment, a few poor initiatives erode enterprise confidence in AI value.

Strategic manufacturers show stronger certainty in AI's value

Percentage of respondents by AI sentiment and strategy



Certainty, with more positivity

Companies that embed AI in their strategy launch the most AI initiatives, creating higher potential to achieve transformative value.

However, the the skeptics who represent 37% of this cohort can't be ignored. While some skepticism is healthy, left unchecked it will block adoption.

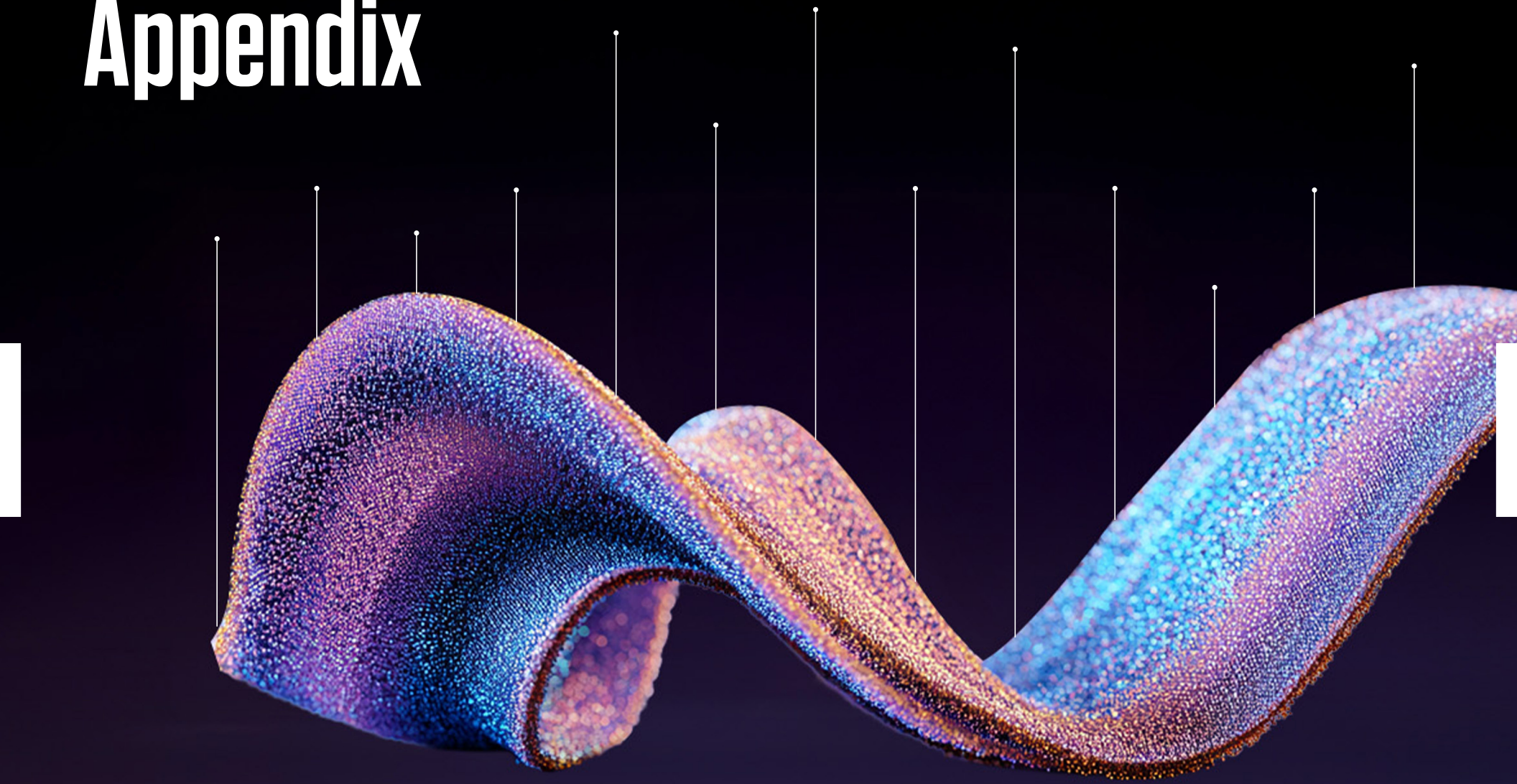
Uncertain and skew negative

Those stuck at exploration and experimentation run serious risk of falling behind.

This cohort launches fewer initiatives than peers, leading to an experience gap. As AI maturity is a compounding game, lagging early will concede advantage to competitors who invested early.

N = 636 (critical part of our strategy = 174, significant part of our strategy = 309, exploring and experimenting with AI = 153,
Values do not total to 100 due to rounding
Not pictured: 14 companies who reported that they are not pursuing AI strategically

Appendix



Appendix A: Methodology

The Infosys Manufacturing Tech Index is a survey-based research study that benchmarks AI technology investment, strategy, implementation, and adoption across the manufacturing sector.

This edition draws quantitative data from 650 manufacturing companies spanning 14 product lines across Asia-Pacific, Europe, the Middle East and Africa, and North America.

Our survey, limited to organizations with revenues above $1 billion, captures a significant share of manufacturing revenue generated across these regions.

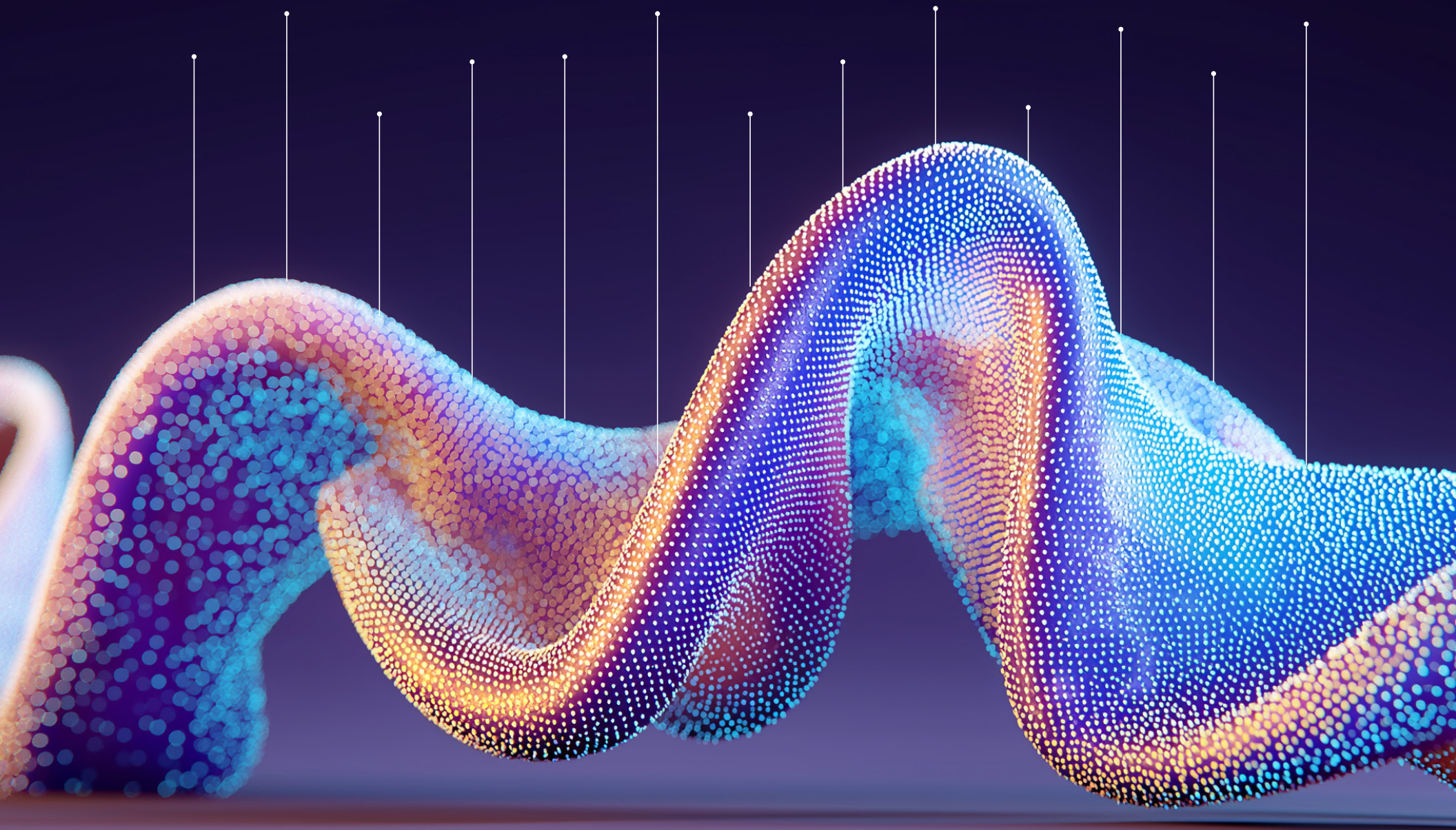
Our executive respondents are senior leaders responsible for AI strategy and enterprise-wide AI implementation.

In this volume, respondents shared details on AI spend, current levels of AI adoption, AI strategy, and their perception of AI's value creation during late 2025.

The survey was supplemented by interviews with manufacturing executives and Infosys manufacturing experts, as well as referencing the existing body of related research by Infosys Knowledge Institute.

We derived insights on AI initiatives at varying stages of maturity, functions where AI delivers the highest impact, barriers to implementation, how organizations design their AI roadmaps, and their broader outlook on AI.

As we collect and synthesize data in future volumes, this research will deliver a dynamic view of trends, monitor shifts in patterns and support decision-makers in manufacturing organizations in making informed choices on AI technology and talent.



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