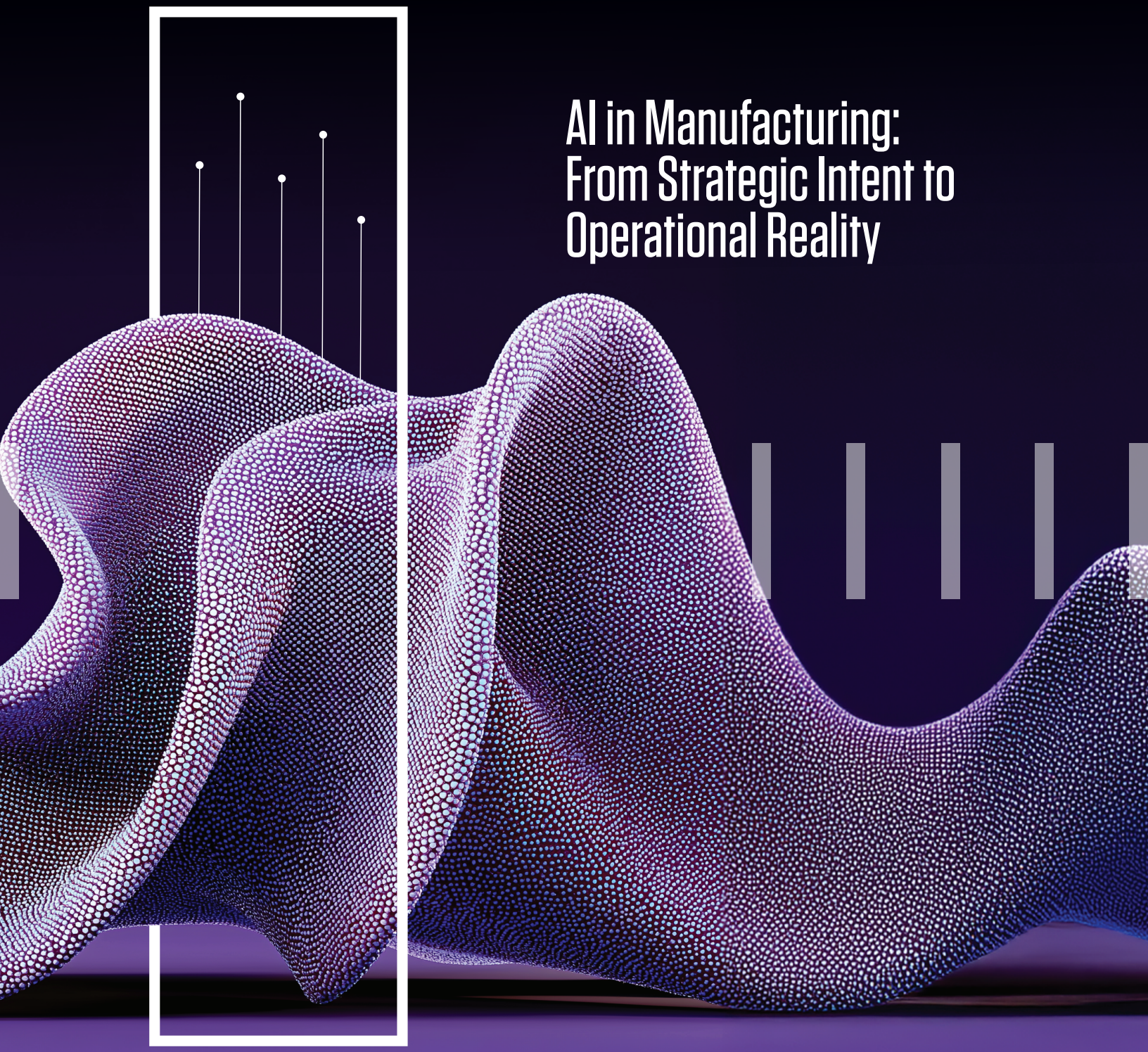
VIEW POINT

AI in Manufacturing: From Strategic Intent to Operational Reality



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Artificial Intelligence (AI) is no longer a futuristic concept for the manufacturing floor; it is the engine of our industry's transformation. As we step into the Industry 5.0 era, the question we face today isn't whether AI will reshape operations, but rather how quickly and confidently we can embed it into the fabric of our businesses.

As we navigate this shift, it is clear that the industry has moved beyond mere curiosity. The inaugural edition of the Infosys Manufacturing Tech Index: AI Pulse report reveals a compelling evolution: manufacturers are no longer just piloting AI – they are committing to it. With median investments exceeding $2 million per initiative, the scale of ambition is undeniable. Yet, the path from strategic intent to operational reality remains complex, marked by a mix of bold progress and persistent hurdles.

The Strategic Imperative

For 75% of manufacturers, AI has graduated from an experiment to a critical pillar of corporate strategy, an essential capability as organizations strive to meet the human centric, resilient, and sustainable expectations of **Industry 5.0.** This shift is driven by operational realities: rising costs, workforce constraints, and a level of complexity that traditional automation simply cannot handle. AI is now essential for reducing unit costs, accelerating innovation cycles, and responding to market volatility.

However, strategy alone does not guarantee success. Our findings uncover a 'Great AI Divide'. Manufacturers that embed AI deeply into their strategy launch significantly more initiatives – averaging 80 distinct projects – compared to their peers. These organizations understand that AI maturity is a compounding game. By building shared platforms and standardized architectures, they create a learning advantage that grows with every new deployment.

Those who remain in the exploration phase risk conceding a permanent advantage. In a landscape where experience compounds, waiting for the perfect use case is a losing strategy.

Where We Are Winning (and Where We Are Stuck)

The current implementation landscape offers a stark dichotomy. Cybersecurity and Operational Technology (OT) systems have emerged as the top use cases for AI deployment. This makes sense; in an era where digital and physical production systems are converging, the ability to detect threats and vulnerabilities in real-time is non-negotiable.

Yet, paradoxically, cybersecurity also stands out as the primary barrier to scaling AI. Along with data readiness, it represents a foundational challenge that must be addressed before we can grant AI greater autonomy. We cannot build agentic capabilities on shaky infrastructure.

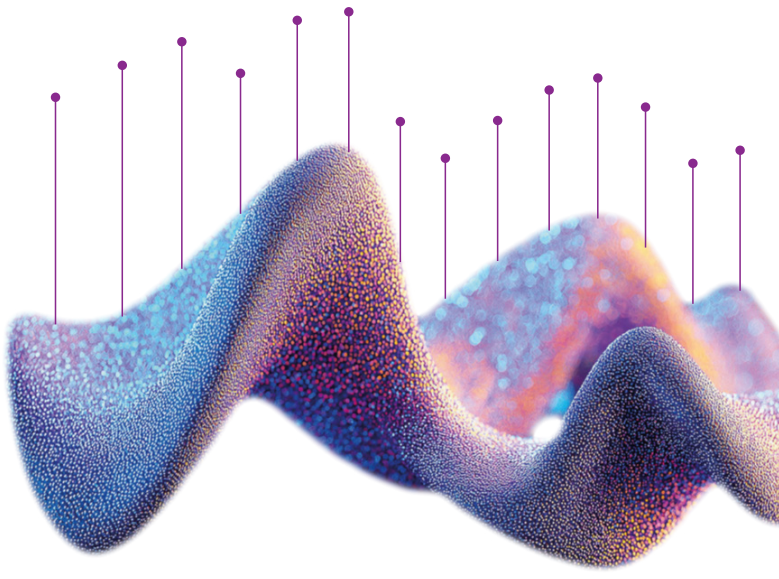
Interestingly, while heavy investments flow into IT and OT security, high-impact areas like sales, service, and the aftermarket receive lower priority. This represents a missed opportunity. AI's ability to predict maintenance needs or personalize the aftermarket experience can drive immediate revenue and customer loyalty, funding further innovation upstream.

The Investment Reality: A Portfolio Approach

Manufacturing leaders are treating AI investment with the same capital discipline as any other core operational program. But the results often resemble a venture capital portfolio rather than a traditional IT rollout.

Approximately 44% of deployed initiatives meet at least some business objectives, while nearly an equal number are either canceled or fail to generate value. This 'hit rate' should not discourage us; it is a feature of innovation, not a bug. Success requires intense early focus, rigorous stage-gate criteria, and the courage to terminate underperforming projects to reinvest in winners.

We are also seeing a heavy reliance on external partnerships. Three-quarters of manufacturers leverage external technology partners to bridge the talent gap. Whether through hybrid models or strategic vendor relationships, the industry acknowledges that we cannot build the future entirely in-house.



Bridging the Gap: Confidence with Caution

Sentiment across the industry is polarized. Nearly as many executives view AI as 'transformational' as those who consider it 'overstated'. This division often stems from the uneven nature of value realization. When a single initiative represents a multimillion-dollar investment, a few failures can erode enterprise confidence.

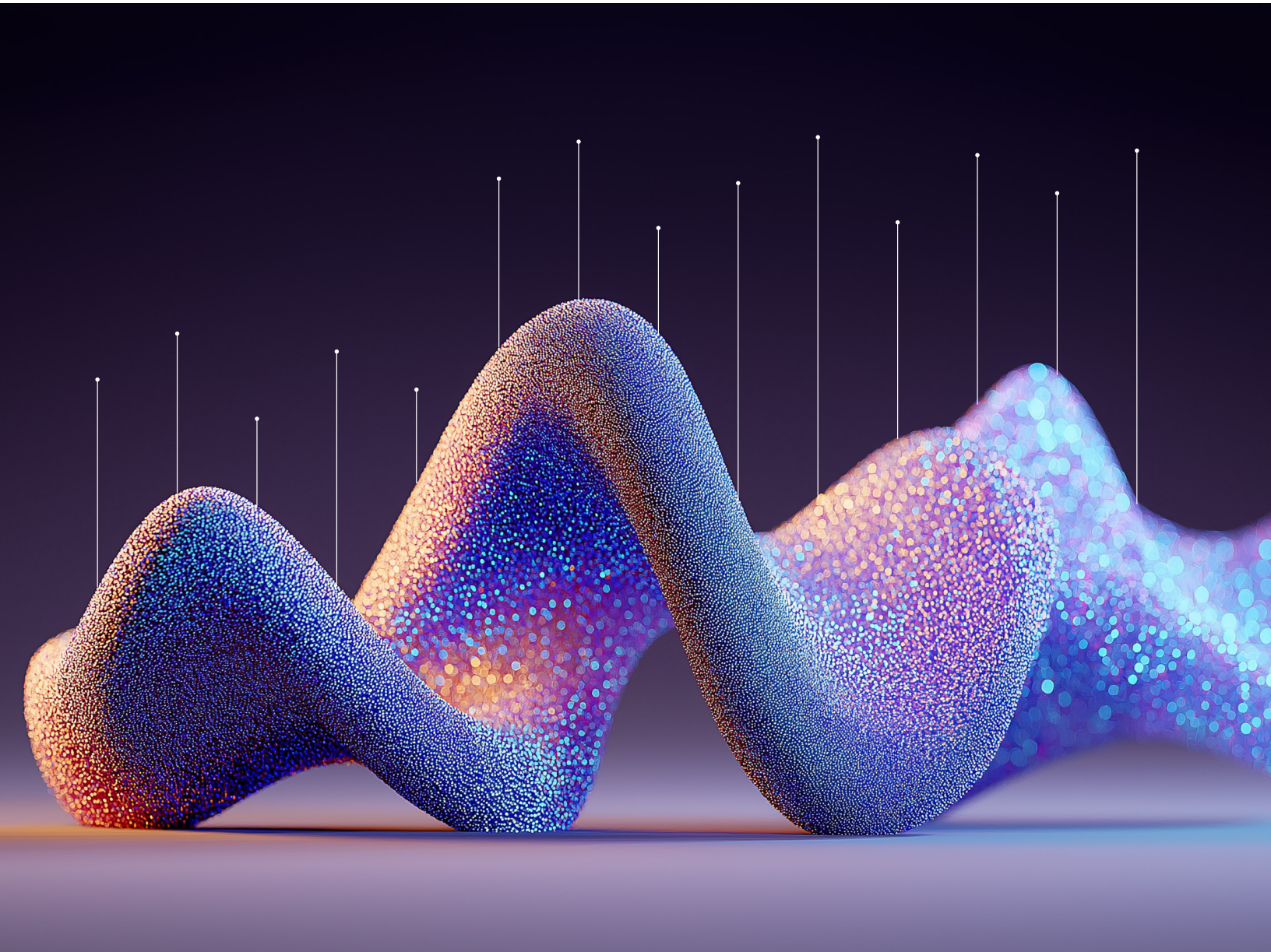
To bridge this gap, we must look beyond the technology. The most successful organizations focus on the human curve as much as the technology curve. Workforce enablement is the hidden variable in the AI equation. We cannot simply drop advanced algorithms into legacy workflows; we must upskill our teams to work alongside these new tools.

The Road Ahead

The future of manufacturing demands more than the launch of new pilot programs. As we look at the next chapter, it is essential to embed AI into the core of decision-making, an approach that echoes Infosys' purpose of amplifying human potential and driving purposeful innovation. Real transformation begins with the commitment to the often unseen, yet vital, work of data governance and cybersecurity. Upholding these pillars is essential to not only safeguard operations but also build trust and accelerate progress.

Achieving the vision of an AI-first organization requires the qualities that define our purpose: patience, capital discipline, and an openness to learn from every outcome.

At Infosys, we know that lasting change is built on thoughtful actions and sustained collaboration. The organizations that embrace these principles – integrating technology with integrity and foresight – will not only weather the transition ahead. Together, let us set new standards in the Industry 5.0 era.



Jasmeet Singh

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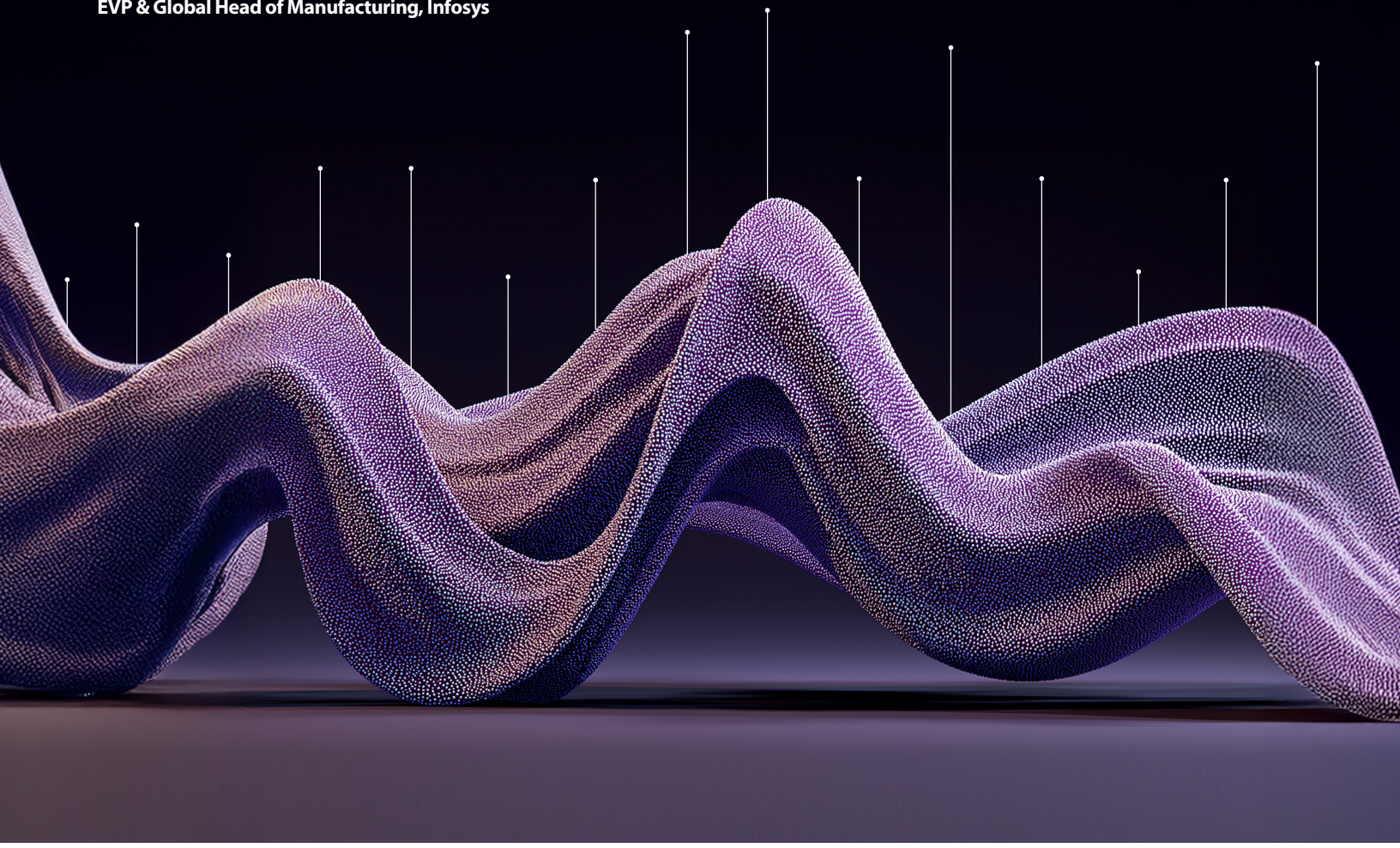
Jasmeet Singh is the Global Head of Manufacturing at Infosys, where he oversees the strategy roadmap and drives growth across the automotive, aerospace and defense, and industrial manufacturing sectors, globally.

With over 30 years of experience, Jasmeet is a trusted advisor to CEOs and Boards, helping organizations navigate the challenges of rapid technological disruption while unlocking business value. Prior to his current role, Jasmeet was leading the financial services business in the Americas as the Industry Head.

In addition to his current role, he is deeply embedded in Infosys' global ecosystem. He serves as the Chairman of the Board for Infosys Public Services in the Americas and Infosys Automotive GmbH. He also holds Board positions at Infosys subsidiaries, Fluido and Panaya. He contributes to industry innovation as a member of the Board of Governors for the prestigious Aerospace Industries Association (AIA), and is closely involved with Infosys' presence at the World Economic Forum.



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