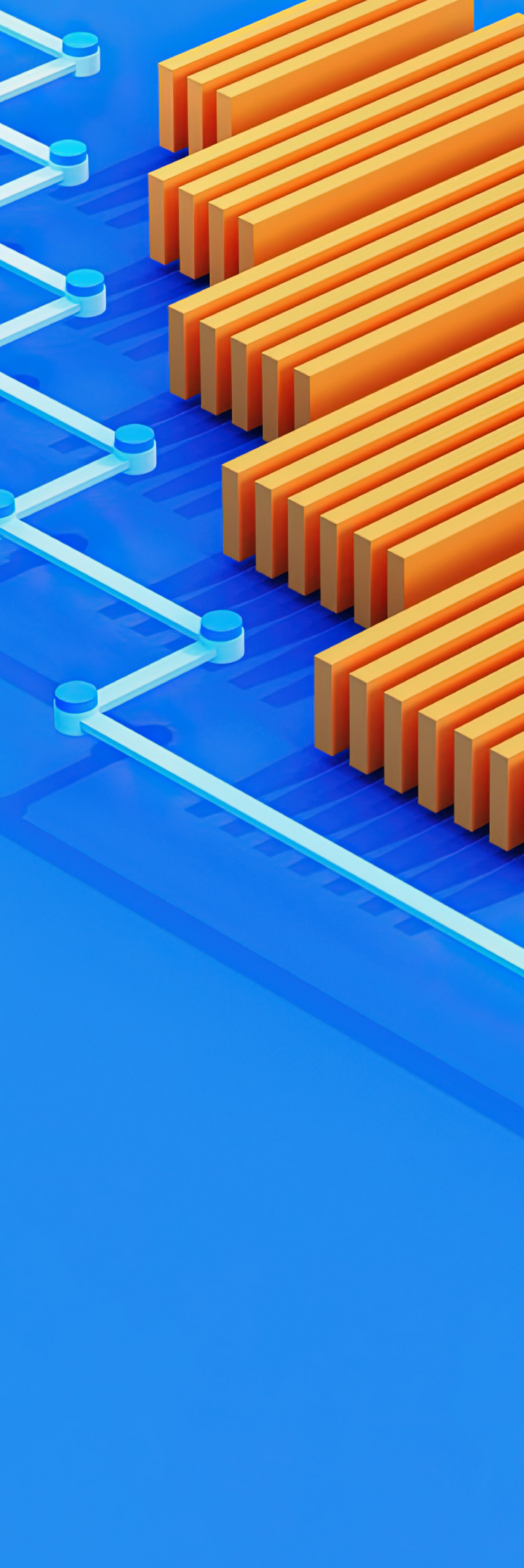




# From promise to power

How AI is redefining India's  
economic future



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# Foreword



**S. Krishnan**

Secretary of the  
Ministry of Electronics  
and Information  
Technology (MeitY),  
Government of India

India stands at a defining moment. Around the world, artificial intelligence is reshaping how economies grow and how societies function. For India, a nation of nearly 1.5 billion people and extraordinary diversity, AI is more than a technological milestone—it is a force that can widen opportunity, strengthen public services, and accelerate our journey toward Viksit Bharat.

Over the past decade, India has laid the foundations for this moment with intent and clarity. Our digital public infrastructure has shown that when India builds at population scale, we do so with ambition and inclusion. India is uniquely positioned to offer this model that is shaped by its people, for the world.

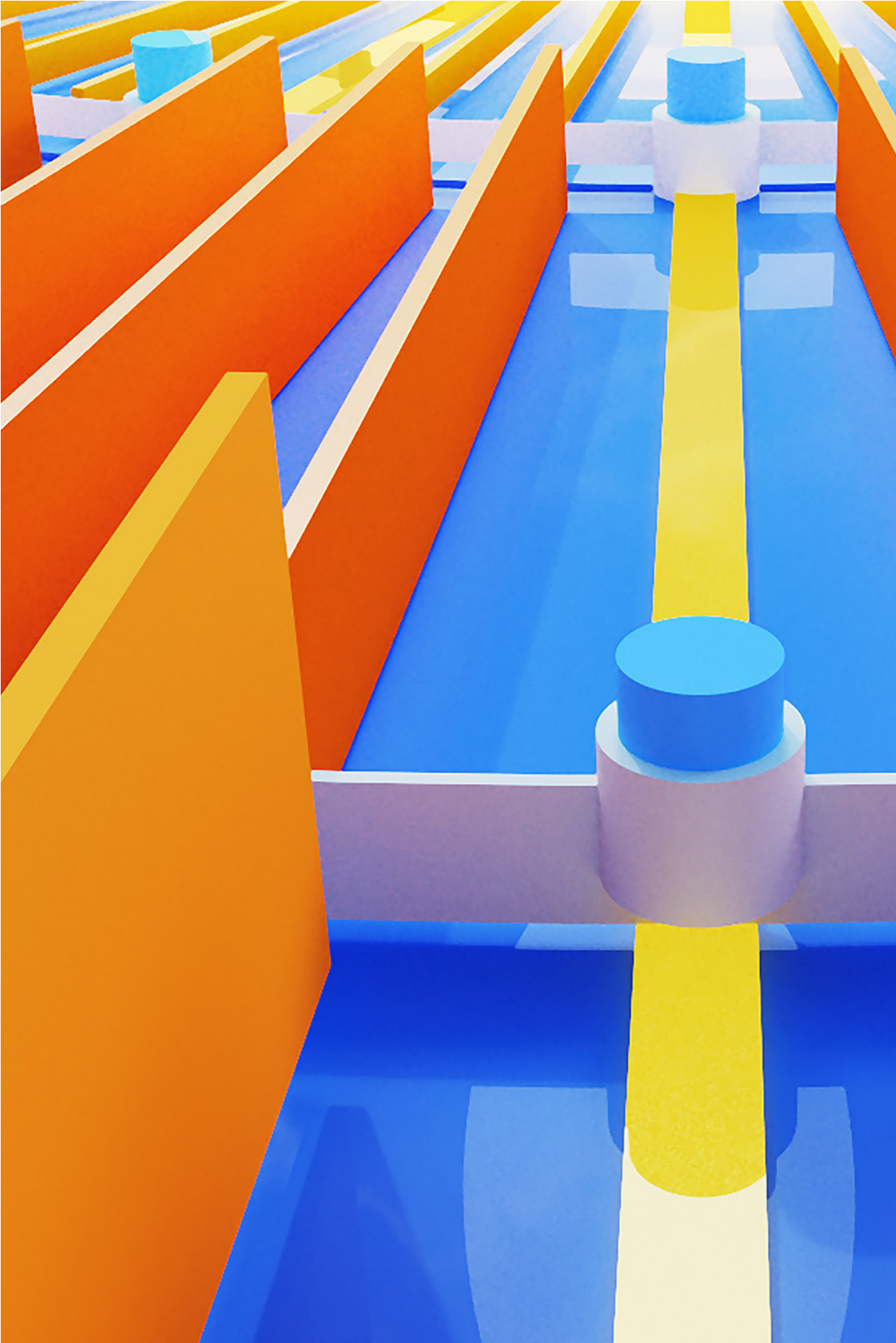
Today, through the IndiaAI mission, we are extending that vision: expanding domestic compute capacity, improving access to high-quality datasets, nurturing indigenous AI models, and strengthening sovereign cloud and AI capabilities that promote trust and autonomy in a rapidly shifting global landscape.

But the work ahead is as important as the progress made. Executives across sectors are clear-eyed: belief in AI's potential is high, but the challenges for most organizations are still early in their ability to scale it. The gap? Readiness. To unlock AI's full economic potential, India

must modernize legacy systems, raise data quality, strengthen governance, and build a workforce fluent in AI across every level, not just in specialist roles. We must ensure our startups have the compute, capital, and collaboration platforms needed to innovate boldly. And we must do all of this while keeping inclusion, safety, and public trust at the heart of every decision.

AI will not reward passive optimism. It will reward coordinated action—across government, industry, academia, and the vast network of innovators working in every part of our country. If we align our efforts, India can build an AI ecosystem that is sovereign where we need control, open where partnerships accelerate value, and anchored in the principles of transparency, equity, and accountability—AI that is Responsible.

The path is challenging, but our direction is clear. India has the scale, the talent, and the resolve to shape the AI decade on its own terms. Now is the time to turn promise into power. This study, *From Promise to Power: How AI Will Shape India's Economic Future*, offers timely insights into how India can convert AI potential into real economic value. It brings together global experience and local context to inform leaders across industry and government.



# Key takeaways

A sovereign foundation is emerging as the trust layer that lets India expand AI confidently and on its own terms.

- The prize for success with AI in India is significant: AI could add more than \$500 billion to India's economy by 2030.\*

Four in five business leaders say AI investment will directly shape India's GDP growth; gains are expected to come from rewiring entire industry value chains at national scale.

- Few countries are stepping into the AI era with India's mix of scale, digital muscle, and ambition.

73% of Indian executives believe the country will be a leading AI nation by 2030—a bet built on a vast market, a pioneering digital public infrastructure, and the world's largest IT services workforce.

- India is building AI on a framework of its own design.

77% of leaders call for secure, affordable cloud and 74% need control over where data resides. India is converging on a sovereign hybrid model that reflects its regulatory priorities, scale, and economic realities.

- India's enterprises are signaling a turn to AI at scale.

62% of Indian enterprises expect to be scaling AI by 2030. The next wave of AI scale in India will depend on platforms that can move data and insights instantly and securely, across the enterprise and beyond.

- No country has ever attempted what India must do next.

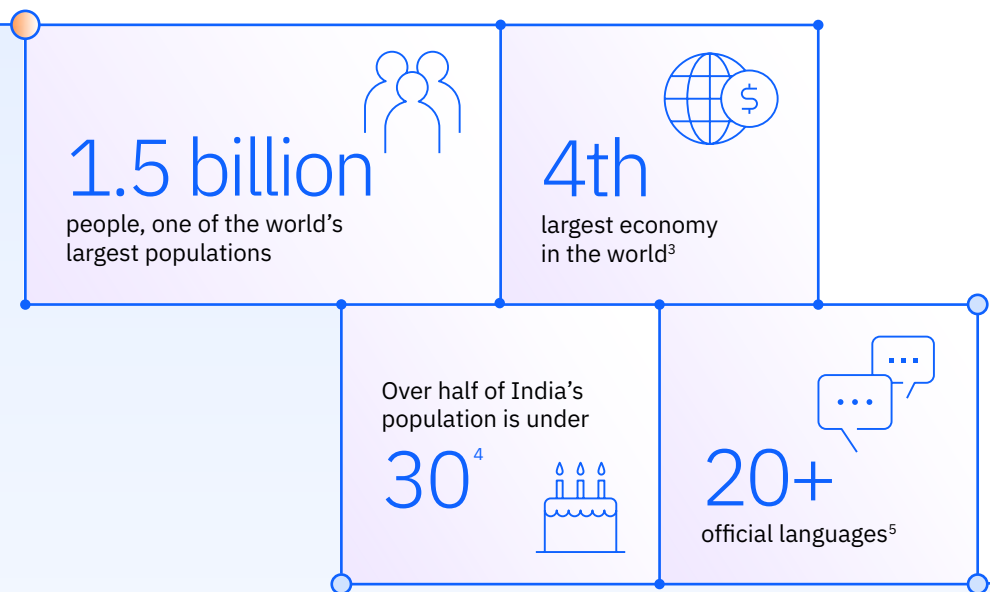
India's current AI literacy rate for employees is at 30%. By 2030, executives say they need this number to nearly double, with 57% of its 600-million-person workforce being AI literate.\* Workforce capability is one of India's biggest potential capabilities in the AI race, but could also be its biggest test.<sup>2</sup>

*\*See research methodology on page 42 for details on this calculation.*

## Introduction

# A nearly 1.5-billion-person economy enters the AI era

Look closely at where global AI momentum is shifting and you'll see the outline of India taking shape, ambitious and impatient to scale. In India, artificial intelligence has moved beyond pure promise; it's becoming a test of how fast an entire economy can learn.



“We must have an inclusive version of AI. It cannot benefit only a few at the top—everyone should be able to participate and prosper.”

**S. Krishnan**

Secretary of the Ministry of Electronics and Information Technology (MeitY)

Government of India

## Inside India's bid to build AI at national scale

India's AI journey is moving fast—and on a canvas far wider than most countries have attempted. The government's AI mission is taking shape through public/private partnerships meant to reach every layer of the economy: from a CEO in Mumbai to a farmer in MadhyaPradesh. In a country as populous as India, with more than 20 official languages and wide disparities in digital access, AI can serve as a connective thread weaving together business, society, and the public sector. It's being built to serve India's entire economic ladder—from small innovators and public institutions to its largest enterprises. *Viksit Bharat 2047* is an initiative that represents the government of India's ambitious transformation agenda focused on productivity, inclusion, technology, and growth. As AI becomes one of the engines behind the country's Viksit Bharat ambition, it can shape how India modernizes everything from public services to industrial competitiveness.

India's AI strategy is also being shaped by a decisive shift: the rise of sovereign cloud and sovereign AI as foundational guardrails. In a world where data jurisdiction, model transparency, and digital infrastructure autonomy are becoming strategic assets, India is building an architecture that keeps core intelligence local while remaining connected to global networks. Across the AI stack, sovereignty is becoming part of the country's design logic—not as a boundary, but as a value lever.

Inside boardrooms, the mood has shifted from curiosity to calculation. 73% of executives say India will rank among the world's top AI nations by 2030. Yet 72% admit their organizations are still behind global peers today in AI adoption. That dissonance has become the country's most telling indicator: belief has outpaced execution, and the space between them is where the next decade will be won or lost.

AI could unlock an additional

**\$500 billion**

in economic value for India by 2030



**73%**

of Indian executives expect India to be a top global AI nation by 2030



The economics make the stakes impossible to ignore. Four in five business leaders say AI investment will directly shape India’s GDP growth. When executives were asked to consider the difference between cautious adoption and transformation at scale, they indicated the payoff to the Indian economy could exceed \$500 billion by 2030. But 74% also know that technology alone won’t deliver it—governance, social infrastructure, and skills must evolve just as fast.

This report explores the three arenas where India’s AI advantage will be decided: inside its private and public enterprises, across connected industry networks, and its expanding role in the global innovation system. The findings outline what leaders in government, business, and technology must act on now. The window for action is open, but not indefinitely; the world’s AI powers are already moving to secure their ground.



## 4 in 5

business leaders say AI investment will  
directly shape India’s GDP growth.

“Today a citizen in India often needs to chase after government entities. That needs to change completely. The government agencies should come to the citizen’s doorstep and say: ‘Here is what you’re eligible for, would you like it?’”

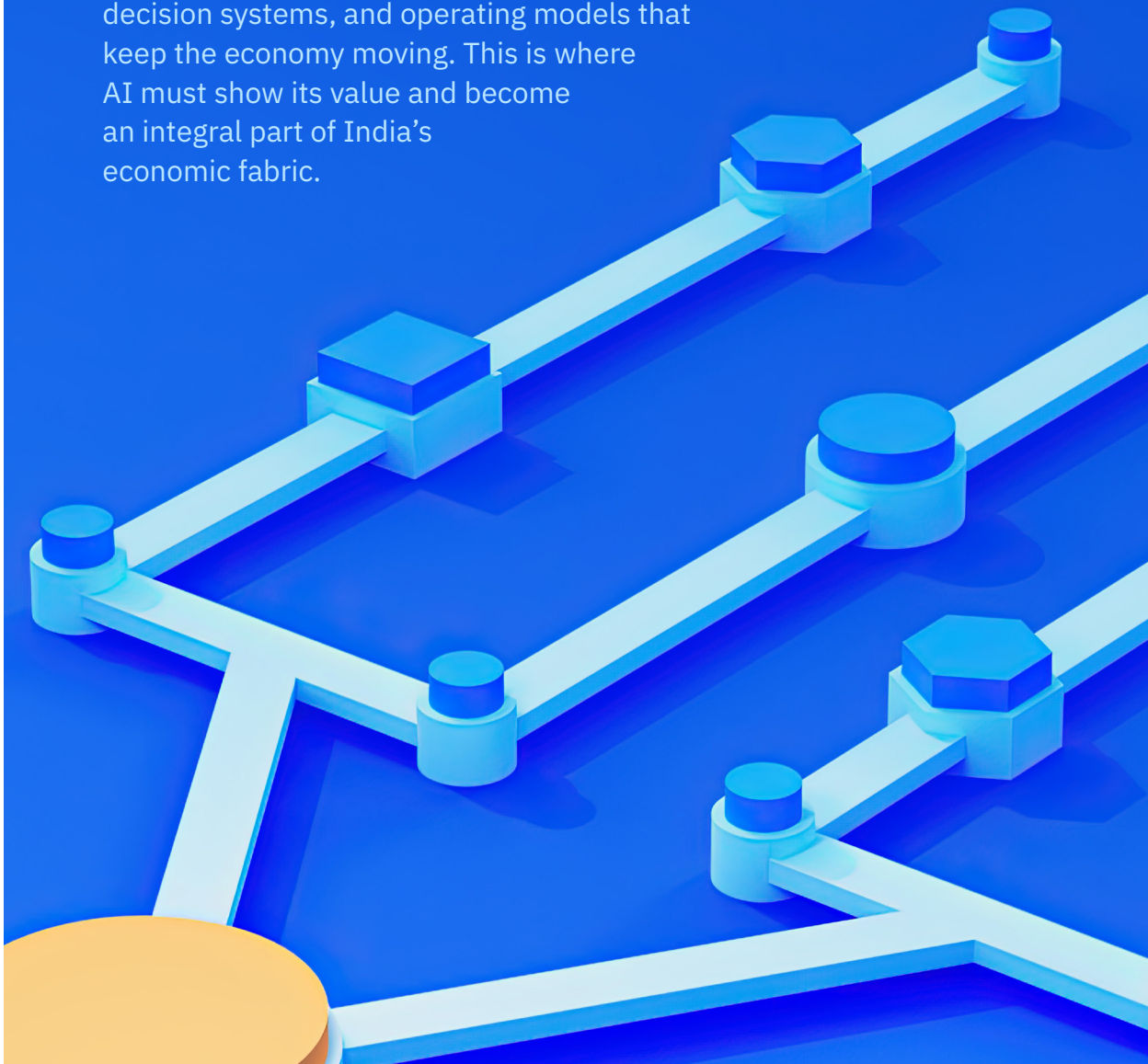
**S. Krishnan**

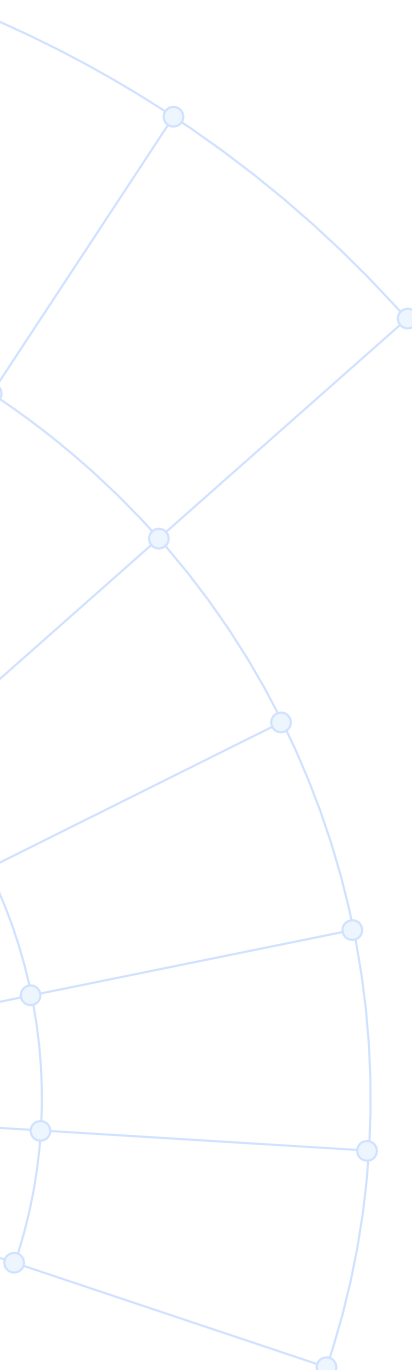
Secretary of the Ministry of Electronics and Information Technology (MeitY)  
Government of India

## Part one: AI in the enterprise

# India's AI edge will be won or lost in the enterprise

India's promise will be realized in the daily machinery of its organizations—the workflows, decision systems, and operating models that keep the economy moving. This is where AI must show its value and become an integral part of India's economic fabric.





The real AI test isn't adoption anymore; it's realizing value at scale. True success emerges as pilots become proven, value-creating use cases—and then scale into platforms that transform industries. To get there, organizations need to shift from experimenting with AI to running on it.

### The foundation beneath India's AI future

Across India—from large enterprises and government departments to MSMEs (micro-, small-, and medium-sized enterprises)—AI experimentation is now everywhere: chatbots in customer service, predictive models in sales and finance, small proofs of concept across supply chains, HR, and field operations. Yet most of these efforts remain narrow in reach. Only 15% of organizations are scaling AI through significant cross-functional investments; the remaining 85% remain locked in pilots.

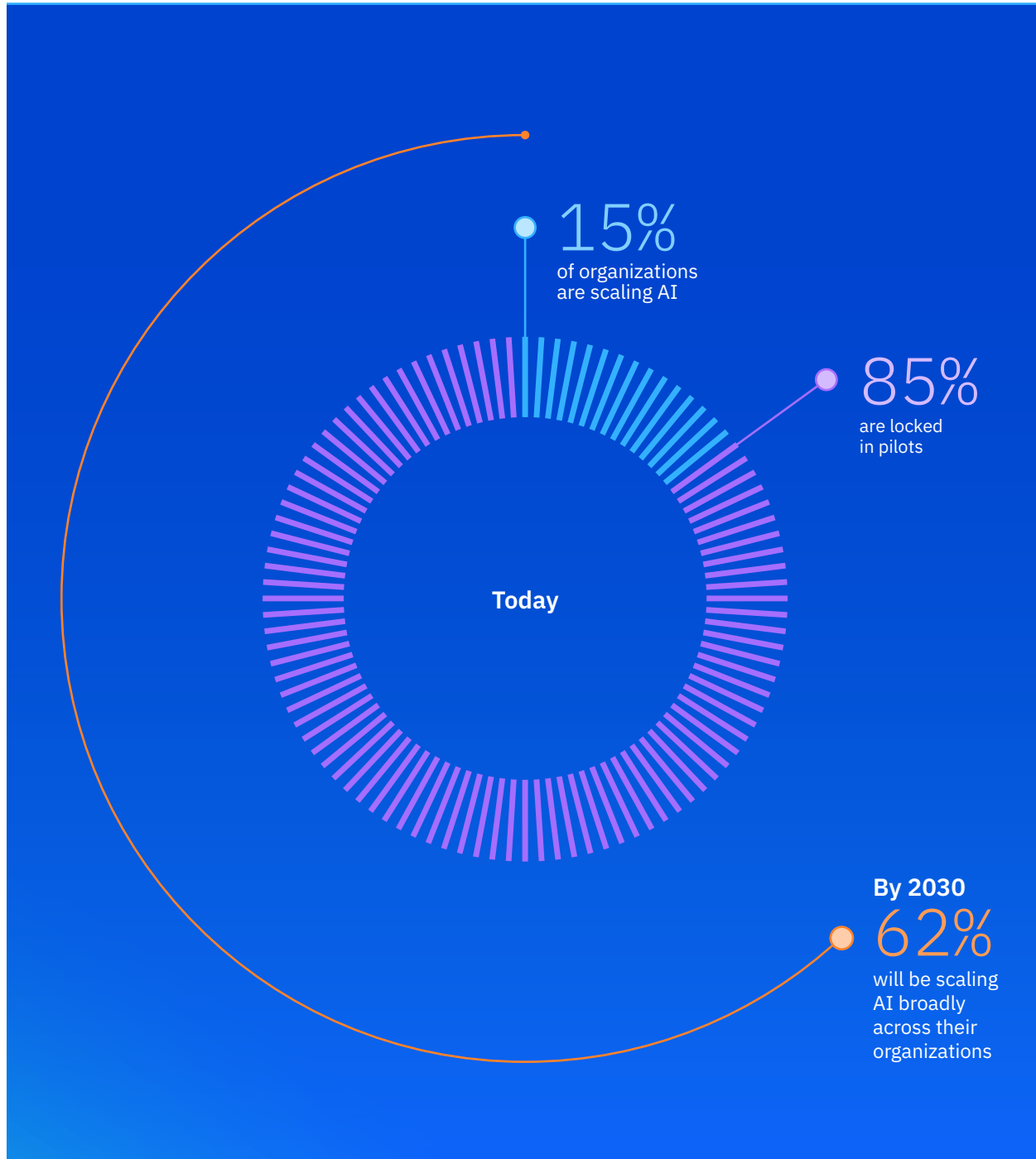
Executives expect this to change. By 2030, 62% say they will be scaling AI broadly across their organizations. But moving from scattered experiments to platforms that reshape whole industries requires something few have built: a scalable digital architecture that makes AI possible at enterprise and ecosystem scale.



India is building an architecture that keeps core intelligence local while remaining connected to global networks.

Figure 1

**Today's reality: Only 15% of organizations in India have scaled AI, but most expect to by 2030**



## The infrastructure enterprises need to scale AI

India's ability to scale AI depends on a hybrid cloud foundation built around two non-negotiables: autonomy and trust. That requires open, interoperable systems that balance cost with control and give enterprises the flexibility to keep sensitive data and workloads close to home when needed.

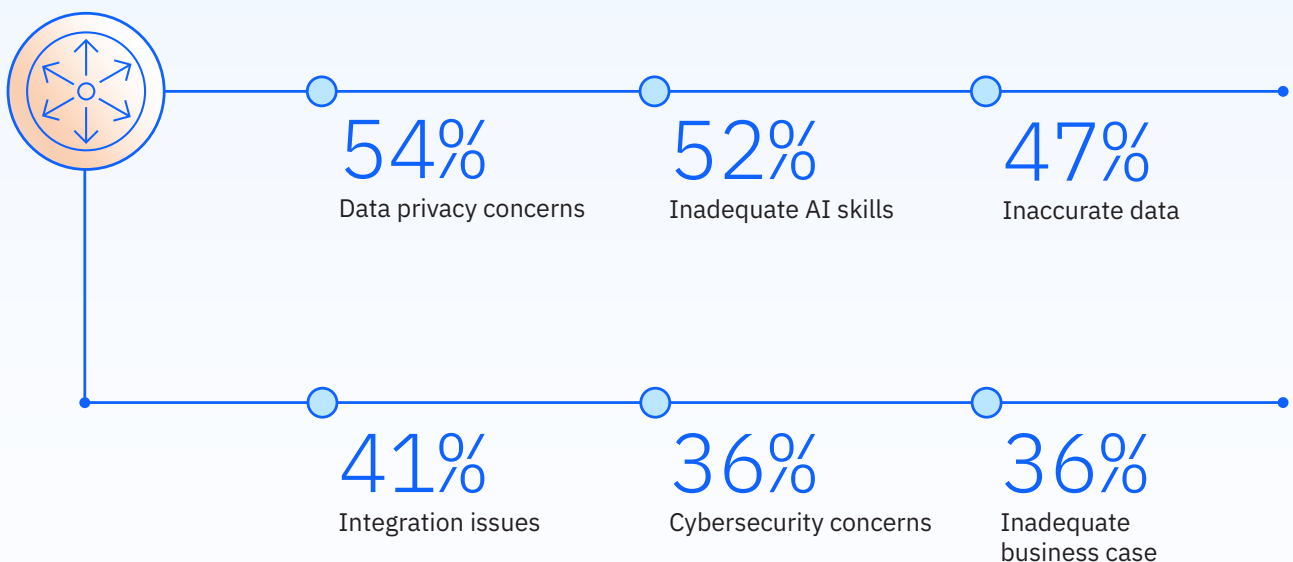
In an AI-driven economy, security becomes the current running through everything—shaping how data is gathered, how models learn, and how intelligence flows into real operations. As organizations build critical workflows centered on AI, they need environments that can prove who has access, what is being used, and how it's monitored.

This is why sovereign and hybrid-by-design architectures are gaining momentum. They offer control without slowing innovation and enable independence within a connected global network—a foundation that lets India scale AI on its own terms.

Still, leaders are clear that significant hurdles remain.

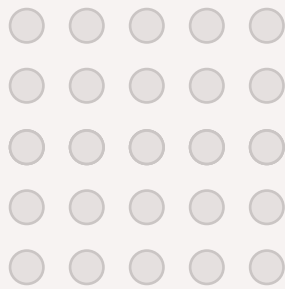
Figure 2

### Biggest barriers to scaling AI in India

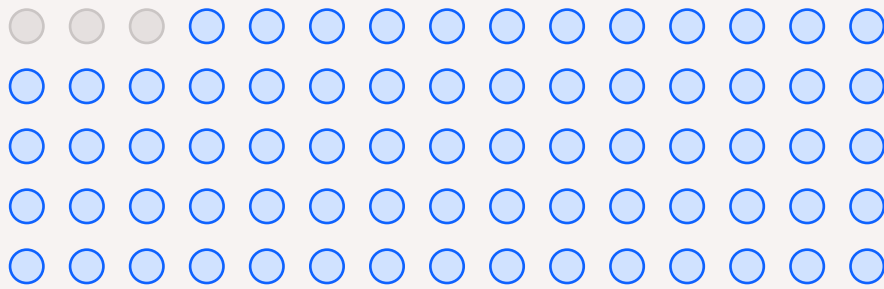


Perspective

The quiet divider: Why data will decide who actually scales AI

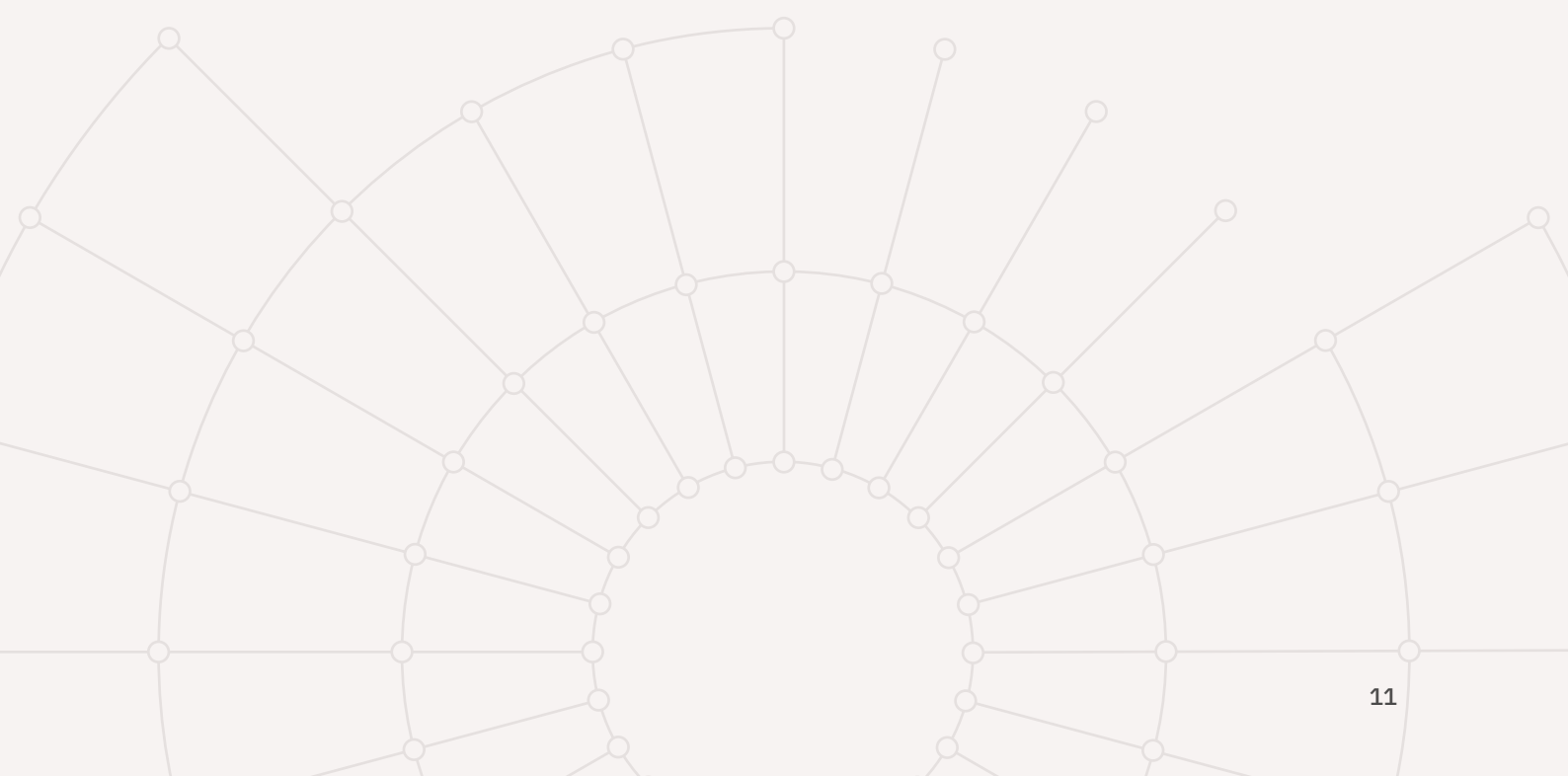


India may be racing toward an AI-powered future, but the numbers reveal a more complicated truth. Seventy-two percent of leaders say their organizations lag global peers, and 57% point to uneven data quality as a major drag. For all the excitement around AI, it's the state of enterprise data—not the sophistication of the models—that is emerging as the real determinant of who can scale.



72%

of leaders say their organizations lag global peers AI adoption



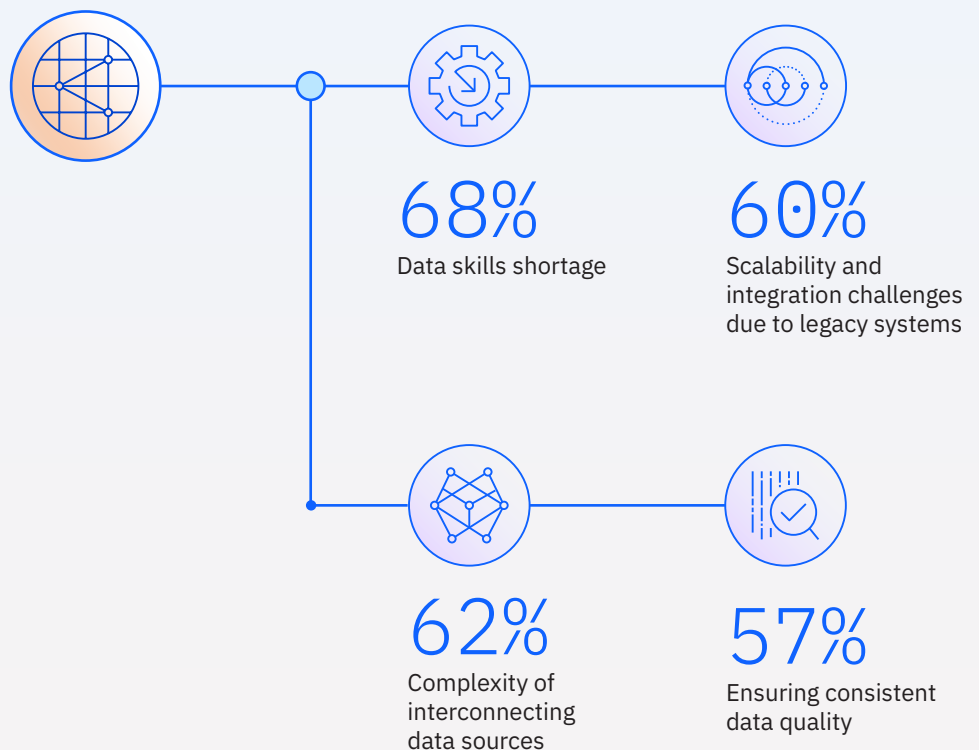
**Perspective** (continued)

The leaders pulling ahead aren't doing so because they use more AI—they're reshaping the data foundations AI needs. They're adopting data fabric architectures to connect information long trapped in silos. They're shifting to real-time data streaming so models can act on live signals instead of delayed batches, turning enterprise data into a continuous flow that models can learn from and act on instantly. These are quiet technical choices, but they're what transform AI from an experiment into an operational engine.

As AI systems evolve toward autonomous workflows and AI agents, the demands on data infrastructure are rising sharply. These systems no longer function effectively on periodic or batch updates; they require fast, continuous,

trustworthy signals that flow seamlessly across hybrid environments. This is creating a new category of infrastructure where real-time data streaming, integration, and governance work together as one foundation.

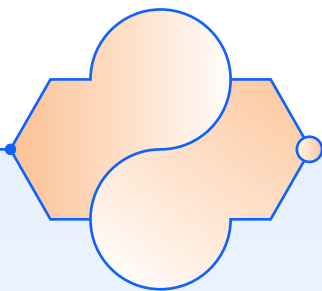
The next wave of AI scale in India will depend on platforms that can move data from where it is created to where it is needed, instantly and securely, across applications, APIs, and clouds. As enterprise data volumes explode and AI workloads multiply, real-time intelligence will shift from a technical preference to a competitive necessity—defining which organizations can move from insight to action at the pace the AI era demands.

**Figure 3****Executives cite biggest challenges to a robust data fabric in their organization**

## Sovereignty built into a hybrid future

India's next phase of AI scale will hinge, partly, on the availability of sovereign cloud capabilities—cloud infrastructure operating on domestic soil, governed by Indian regulations, and architected so enterprises can decide exactly where their data and models live. For regulated sectors and public systems, this is becoming more of a strategic requirement. A sovereign foundation doesn't mean building in isolation; paired with open standards and hybrid-by-design architectures, it gives organizations the freedom to tap global innovation while keeping their most sensitive workloads under national control. It's emerging as the trust layer that positions India to expand AI confidently and on its own terms.

Organizations are pragmatically shifting toward the hybrid-by-design architectures that let them tap global scale while keeping tighter control where it matters most. Hybrid-by-design architectures are intentionally built from their inception to run across both public and private cloud environments. They allow organizations to place each workload where it makes the most sense for cost, performance, and control.



Leaders say a hybrid approach works for multiple reasons.

75%

agree it improves control over data location.

71%

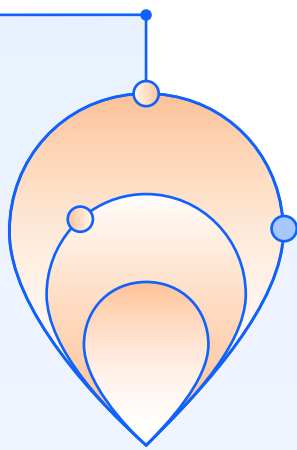
agree it does so without blowing up cost structures.

“Digital sovereignty will become the border of the 21st century. If your data leaves the country to make someone else's model smarter, you've already lost half the battle.”

**Atul Govil**

Chief Transformation Officer and Head (SAP & IT)  
India Glycols

A hybrid approach is a way to keep pace with rising expectations for trustworthy, locally anchored infrastructure while avoiding overdependence on foreign systems. As this shift toward hybrid architecture gains momentum, companies are beginning to extend the same expectations of control to their AI systems. That's giving rise to sovereign AI—models, data, and applications developed in India that show what they were trained on, allow firms to decide where the intelligence actually runs, and operate under governance that reflects India's own rules and risk standards. As AI becomes tightly woven into decisions that affect customers, supply chains, and public services, this kind of visibility and locality is becoming a baseline requirement. If approached as a strategic element for greater AI resilience, sovereign AI doesn't slow innovation; it clarifies the terms on which India can scale it.

**67%**

of executives say innovation remains limited without stronger domestic capability.

**62%**

say data localization strengthens trust.

**77%**

agree that India-based cloud capacity is essential for trustworthy AI.

“Cloud is the electric grid of this century—you can't shy away from it. Hybrid cloud is real and here to stay, and a sovereign cloud becomes non-negotiable when you handle sensitive or personal data.”

**Atul Govil**

Chief Transformation Officer and Head (SAP & IT)

*India Glycols*

## Why readiness remains uneven

Only 27% of Indian executives are confident they have a foundation that's scalable, flexible, and secure enough for AI. A majority cite limited AI infrastructure and compute resources; dependence on foreign AI capabilities; and lack of accessible, affordable, and secure cloud infrastructure as challenges to AI readiness. In addition, they're facing innovation barriers (see Figure 4).

Layered on top of that internal drag is a different pressure: trust. Once AI starts shaping real world outcomes, expectations of reliability and security rise instantly—every input, model, and output needs greater rigor. In that context, the ability to keep sensitive workloads in country is emerging as an innovation prerequisite.

Figure 4

### Indian executives identify main challenges to AI readiness

#### Innovation barriers



70%

Lack of skills to implement AI solutions

60%

Low AI research and development

53%

Insufficient data-sharing frameworks

#### Infrastructure barriers



77%

Lack of accessible, affordable, and secure cloud infrastructure

59%

Dependence on foreign AI capabilities

53%

Limited AI infrastructure and compute resources

## Perspective

### Current operating models are a weak link in Indian enterprise AI

Even with the right architecture, Indian organizations face a second barrier: their operating models are not ready for scaled AI. Almost three-quarters of executives say their operating model must be updated to capture AI's value—yet structural change has barely begun.

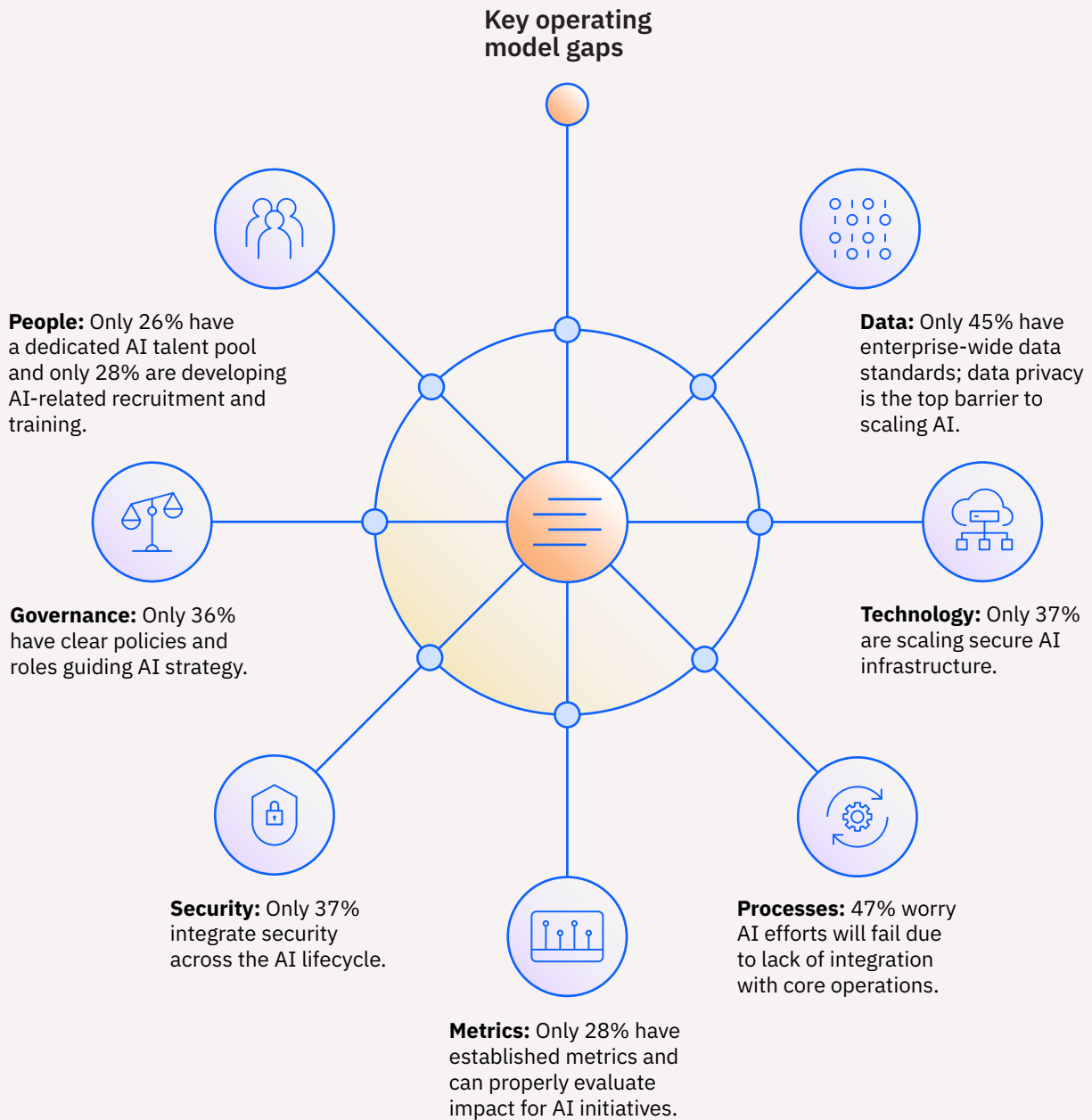
These gaps signal a deeper truth: many organizations still treat AI as a set of tools, not a catalyst for enterprise transformation.

The shift from pilots to platforms will decide whether India's AI trajectory becomes a national-scale transformation.

The ability to keep sensitive workloads in country is emerging as an innovation prerequisite.

Figure 5

**Almost three-quarters of executives say their operating model must be updated to capture AI's value—yet structural change has barely begun**



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## Perspective

### Powering India's sovereign AI backbone

India's AI infrastructure push isn't defined by one project. These initiatives form the technical substrate of India's AI economy—a connected architecture of compute, data, and language that gives enterprises autonomy and scale.

IndiaAI Compute Capacity is the hardware heart of the effort—a plan to deploy more than 10,000 GPUs through public private partnerships—but it sits inside a wider system designed to make the country's digital foundation sovereign and scalable.

Alongside the GPU network, the AIKosh national datasets platform is tackling India's data quality challenge by opening access to trusted, nonpersonal datasets, while the IndiaAI Innovation Centre is developing indigenous multimodal models so that compute power translates directly into local capability.

The reach extends even further through Digital India BHASHINI, an AI-powered language translation platform launched by the Indian government to ensure access to digital services in every citizen's own language.

These national assets will increasingly rely on a sovereign-cloud foundation to ensure that compute clusters, datasets, and research environments operate under consistent domestic oversight. Anchoring these capabilities locally—while keeping them built for interoperability—allows India to expand its AI backbone with both autonomy and scale.

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“If we want to operate at scale in India, we must use models that support India's many languages. Global LLMs are evolving rapidly but currently don't cater to the local language diversity.”

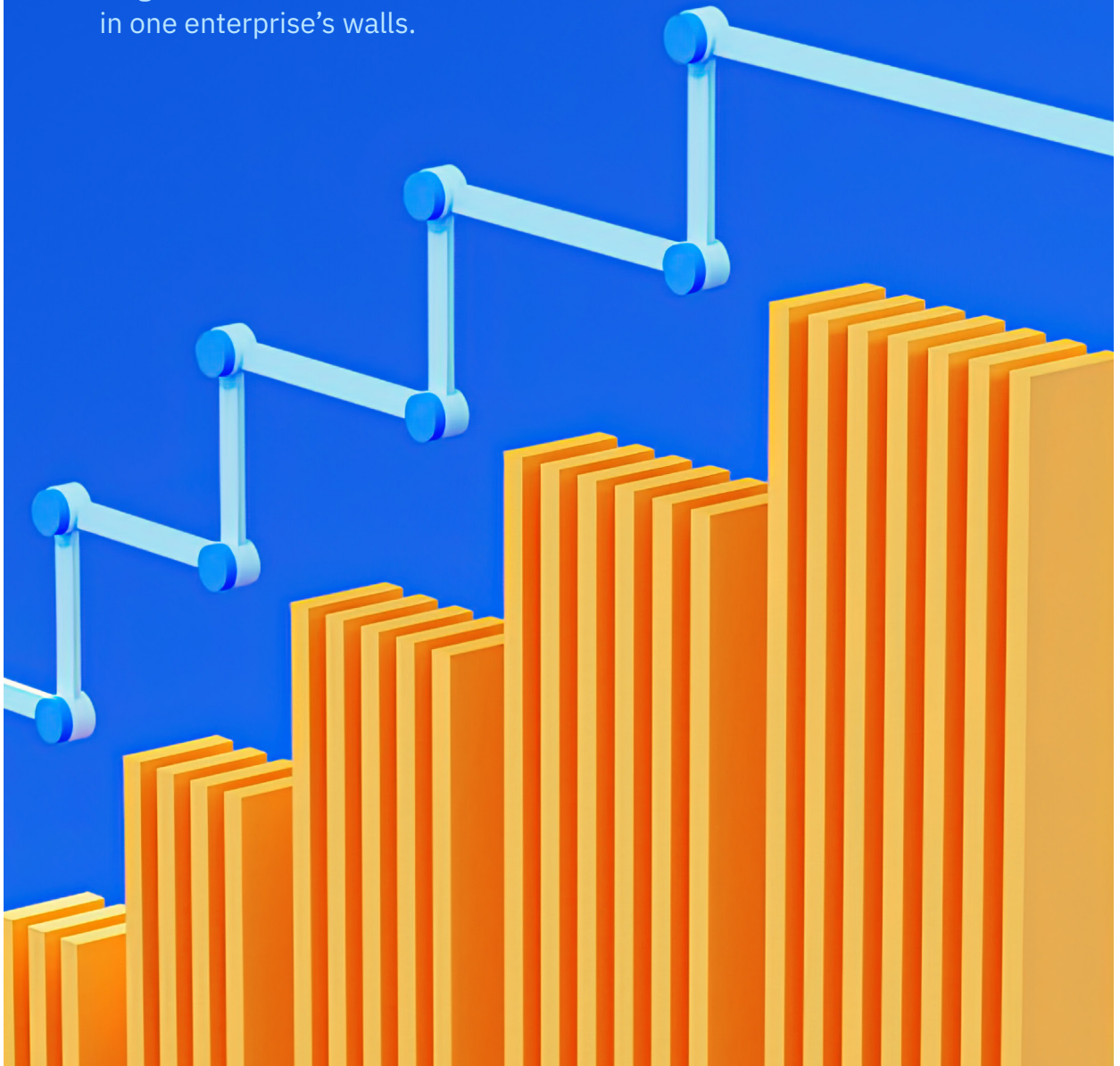
**Ankur Gupta**

CEO, Masin AI

## Part two: AI across industries

# Walls don't scale but networks do.

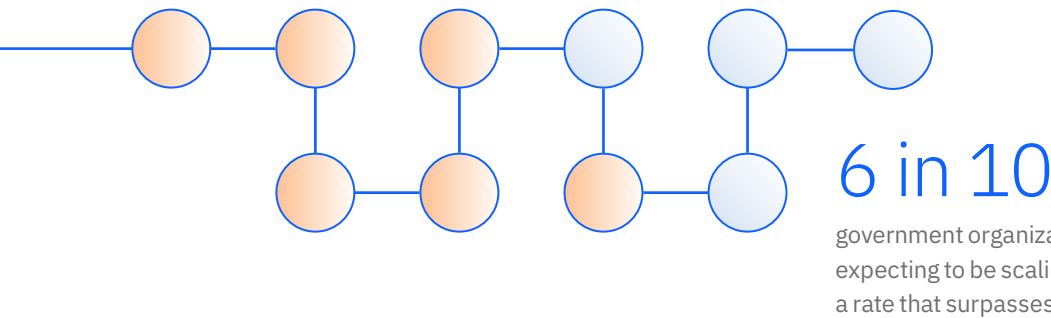
AI won't reward isolation. If pursued wisely, the next wave of India's growth won't just add up—it will multiply. When AI sees its greatest returns, it isn't locked in one enterprise's walls.



## When AI scales, entire industries start to shift

AI binds together suppliers, partners, regulators, and consumers into intelligent networks. This transforms isolated enterprise gains into industry-wide capabilities.

As AI spreads horizontally across functions and beyond the walls of the enterprise to the wider ecosystem, it changes industry verticals. It opens opportunities for reimagining what entire industries and value chains could look like.



That shift is already gathering steam, led by India's government sector. It is furthest ahead on adoption and scaling, with six in 10 government organizations expecting to be scaling AI by 2030—a rate that surpasses the private sector and demonstrates what coordinated commitment can achieve. And they have launched joint initiatives with global tech leaders focusing on skilling, infrastructure, and AI ecosystem enhancement.

The benefits evolve as the move toward industry-wide transformation gathers pace. Today, AI is still focused mainly on productivity in Indian enterprises; by 2030, innovation takes the lead.

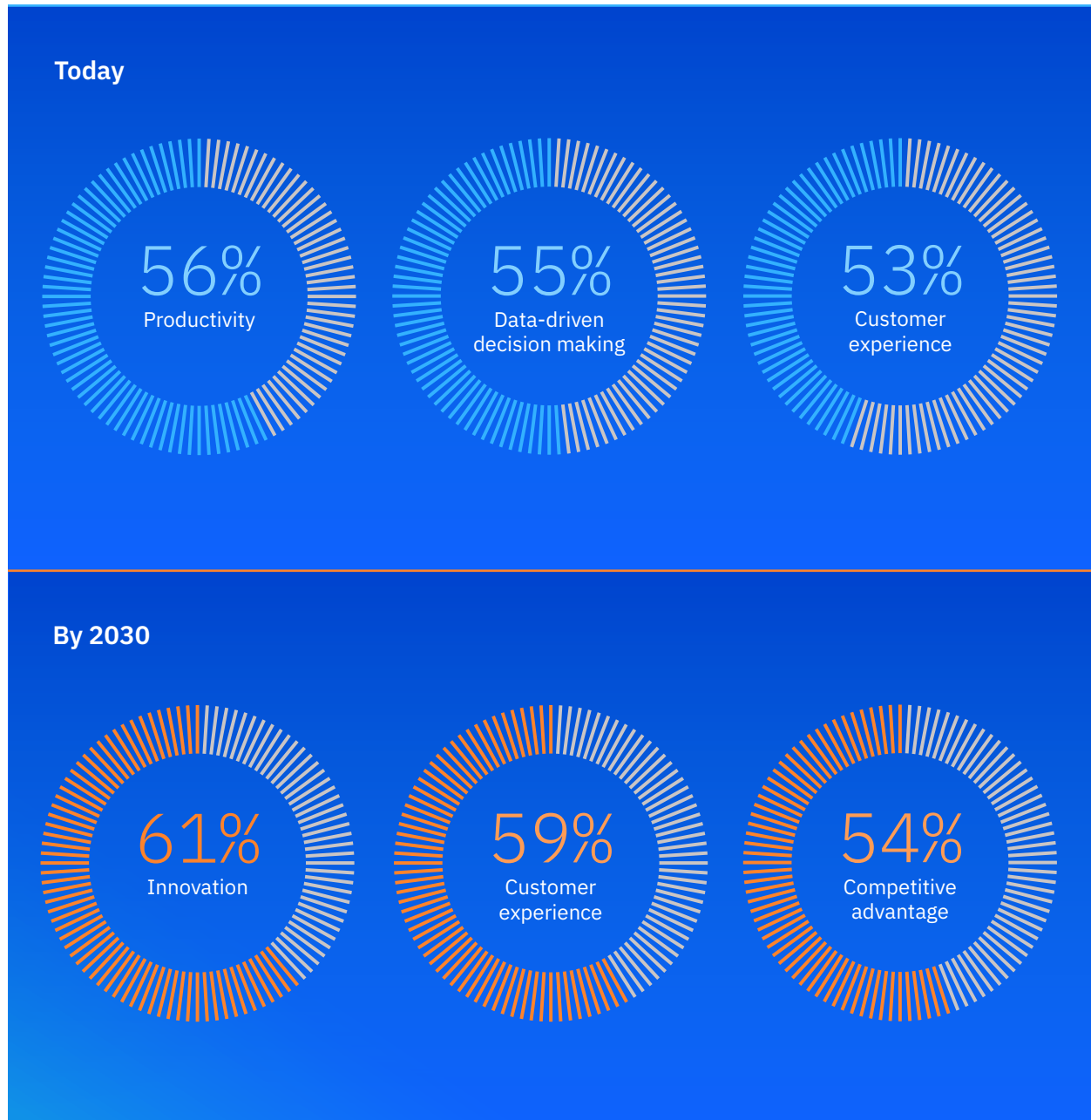


Today, AI is still focused mainly on productivity in Indian enterprises; by 2030, innovation takes the lead.

Figure 6

**India's AI priorities are evolving: Productivity today, innovation tomorrow**

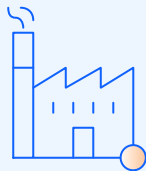
Globally, product and service innovation has risen to the top priority for the C-suite for 2026 through 2030<sup>6</sup>. India is heading in the same direction.



## Reengineering industry sectors

Reengineering India's major sectors—manufacturing, finance, telecom, IT services, healthcare, and agriculture—into AI-powered value chains is where the country's competitive advantage can truly crystallize. Sixty percent of executives already cite manufacturing and industrial development as the biggest growth opportunity for India by 2030. Connecting suppliers, buyers, regulators, and innovators through shared AI platforms, built on hybrid cloud architecture, can push these sectors to new levels of global competitiveness.

Sovereign cloud and AI enable this shift. They build trusted zones where partners can share data and train models with confidence. Encryption, verified identities, and constant monitoring ensure that shared data drives advantage instead of risk. As collaboration scales, this trust perimeter becomes vital infrastructure.



### Manufacturing

Manufacturing presents an immediate opportunity, with a high level of AI adoption. This industry has significant opportunities for AI-led transformation, with manufacturing executives more likely to cite workflow interconnectivity and new revenue streams as key benefits of AI. For example, Tata Steel has built more than 550 AI models over the past five to six years to boost output, quality, and operational efficiency—a scale of deployment that signals how aggressively India's industrial leaders are wiring AI into their core workflows.<sup>7</sup>

“Bridging the urban–rural digital divide is not just a policy priority—it is a national imperative.”

**Kavita Bhatia**

Group Coordinator and Senior Director in Emerging Technology  
Bhashini, Aadhaar and eGovernance group in the Ministry of Electronics and IT (MeitY)  
Government of India



## Banking

AI adoption in India's banking industry is accelerating rapidly. The combination of data-heavy operations and sophisticated regulation creates fertile ground for AI-led reinvention. AI helps banks extract deeper insight from each client interaction, elevate the customer experience, and grow premium services such as embedded finance and wealth management. It is also redefining the backbone of banking operations with improved efficiency, enhanced risk controls, and upgraded technology. For example, HDFC Bank—India's largest private sector bank—has moved AI beyond isolated pilots by rolling out a centralized generative AI platform and is planning 15+ high-impact pilots aimed at improving operational efficiency, staff productivity, and customer service.<sup>9</sup> It provides a practical illustration of how data-rich banks can use generative AI to reshape decision-making and service workflows.



## Agriculture

The transformative impact of AI also reaches industries in rural areas, such as agriculture. While AI adoption in this industry is lower and more uneven, many innovative initiatives have cropped up across the country. For example, precision farming pilots underway in Maharashtra show what's possible when AI meets local agricultural realities.<sup>10</sup>



## Healthcare

Healthcare represents both one of the economy's biggest gaps and its greatest opportunity. Already, innovative examples show how AI can transform care delivery and expand access. Agentic AI can automate clinical coding, manage patient waitlists, and streamline discharge processes—tasks that once required months of manual validation and can now be completed in hours. For example, Indian hospital chain Narayana Health has introduced a gen-AI-driven clinical documentation platform that automates routine paperwork and has freed up roughly 25,000 clinician hours for patient care.<sup>8</sup>

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## Perspective

# How AI is showing up on the ground in India: Early use cases

Across India, practical AI is already emerging in places where the stakes are highest—from digital payments that move the nation, to farms that feed it.



### AI-driven fraud detection in UPI transactions

UPI is one of the world's busiest real-time payment networks, moving tens of billions of transactions a month. That scale creates an obvious pressure point: keeping fraud under control without slowing payments. NPCI, which runs UPI, is now piloting AI and federated models with major banks to spot suspicious patterns in real time—everything from unusual device behavior to network anomalies.<sup>11</sup> These systems generate alerts or flag high-risk transactions before money moves. The Reserve Bank of India is taking the next step with its Digital Payments Intelligence Platform, designed to warn banks and users about potentially risky transactions before they go through.<sup>12</sup> As UPI grows, AI is becoming the safety layer that helps the system stay fast, open, and secure.



### Trusted, multilingual AI for Indian farmers

AI is also reshaping agriculture—often quietly, but with huge potential impact. India is rolling out secure, multilingual tools that give farmers advice on crops, pests, and weather in the languages they actually speak. The Kisan e-Mitra chatbot already provides support for government schemes and basic agronomic questions.<sup>13</sup> New AI based crop health systems combine satellite imagery, weather data, and soil information to detect stress early, while a national pest surveillance program uses machine learning to forecast outbreaks. Together, these tools show how AI can serve frontline users with limited digital access—delivering expert guidance, at scale, in a form that feels personal and local.

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## Case study

### Vodafone Idea shows what can happen when AI stops being a pilot<sup>14</sup>

Vodafone Idea (VI) is pushing AI beyond experiments and into the core of how the telecommunications company builds products and serves customers. Over the past year, the company has embedded generative AI across its software development workflows, with hundreds of team members now using AI assistants to speed up requirements, coding, testing, and operations. By redesigning how work gets done rather than layering AI on top, Vodafone Idea has already cut go-to-market timelines by 10-15% and is aiming for a 25-30% reduction as adoption scales.

The company is also using AI to tackle one of its biggest pain points: network related customer complaints, which make up more than 95% of all issues. A new AI driven system now automates root cause analysis using data from CRM systems and the network itself. What once took four to seven days is resolved in about 24 hours, freeing more than 450 employees for higher-value work and helping automate more than six million cases per year.

Together, these efforts show how Vi is treating AI not as a set of tools but as a strategic engine for transformation—boosting productivity, speeding innovation, and improving customer experience at national scale.



By redesigning how work gets done rather than layering AI on top, Vodafone Idea has already cut go-to-market timelines by 10-15% and is aiming for a 25-30% reduction as adoption scales.

## Sector gaps can catalyze AI growth

While India's industry sectors are at vastly different starting points, that unevenness creates opportunity. Lessons from leading industries such as manufacturing and banking can accelerate adoption and transformation in other industries, while agriculture's local pilots can inform how AI adapts to regional realities. Sector transformation that accounts for this diversity creates exportable models, improves domestic productivity, and enhances national competitiveness.

As India pushes AI across its industries, it has a clear advantage: the world's largest IT services sector. With major domestic firms and large operations for the world's biggest tech companies, the country has both the sizable potential talent base and the exposure to global advances in AI and technology.

## Using AI platforms as industry scaffolding

India is building AI on top of digital public platforms that already connect millions of businesses and more than a billion people—platforms such as Aadhaar, UPI, Account Aggregators, ONDC, ABDM, DigiLocker. When enterprises modernize internally, they're helping themselves but are also becoming ready nodes in a national economy designed for interoperability. Just as platforms can help an enterprise transform internally, so it is with industry-wide platforms—only it's entire industries that benefit from the transformation.

Cloud becomes the integration fabric that lets enterprises plug into shared rails. AI becomes the intelligence layer that lets them learn from patterns no single firm could generate alone—demand signals across supply chains, risk profiles across financial networks, health patterns across populations, logistics flows across markets.

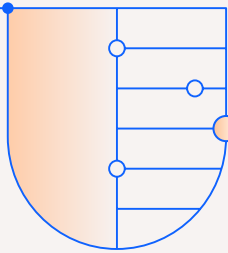
Inside an enterprise, cloud and AI unlock new products and operational agility. Across an Indian industry, they enable new market structures—digital supply chains that self-optimize, financial networks that personalize credit at scale, healthcare pathways that compress diagnosis times, retail marketplaces that surface hyperlocal demand in real time.

In India, cloud and AI represent more than operational improvements. They are opening the path to an economy in which industries evolve into data-driven ecosystems and enterprise modernization supports broader national growth.

## Perspective

# Governing shared intelligence

AI is creating new points of connection between companies, forcing governance to evolve from internal policy to shared discipline. Governance is rising on the agenda: while 68% of enterprises cite gaps in AI governance as a barrier to scaling, 45% say they are piloting or have already embedded governance practices into everyday systems.



Stronger governance is more than a safeguard; it's what enables coordinated action across industry networks.

That's why

## 68%

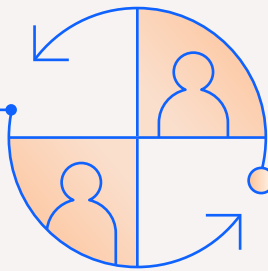
of executives agree India needs a more ecosystem-oriented approach to AI adoption.

## 68%

of Indian organizations are developing, optimizing, or scaling external partnerships to accelerate AI innovation and capability building.

**Perspective** (continued)

As AI spreads across entire industries, the challenge shifts from building systems to orchestrating them. Open AI practices help create the common standards and interoperability that make it clear how models are built, how they behave, and who is accountable for them. This shared baseline is what allows thousands of organizations to participate in connected AI networks with confidence, without blurring lines around responsibility or control.



Partnerships are becoming more focused.

**57%**

of executives now limit AI partners to improve scaling speed.

**56%**

plan to concentrate on fewer, higher quality collaborations.<sup>15</sup>

It's a constructive shift—a move toward intentional networks designed to share insights, distribute capacity, and support collective progress.

“For startups, it comes down to one question: am I allowed to fail? If I can experiment for a few months and fail safely, then I'd do it. But that can't come at the cost of running my current operations.”

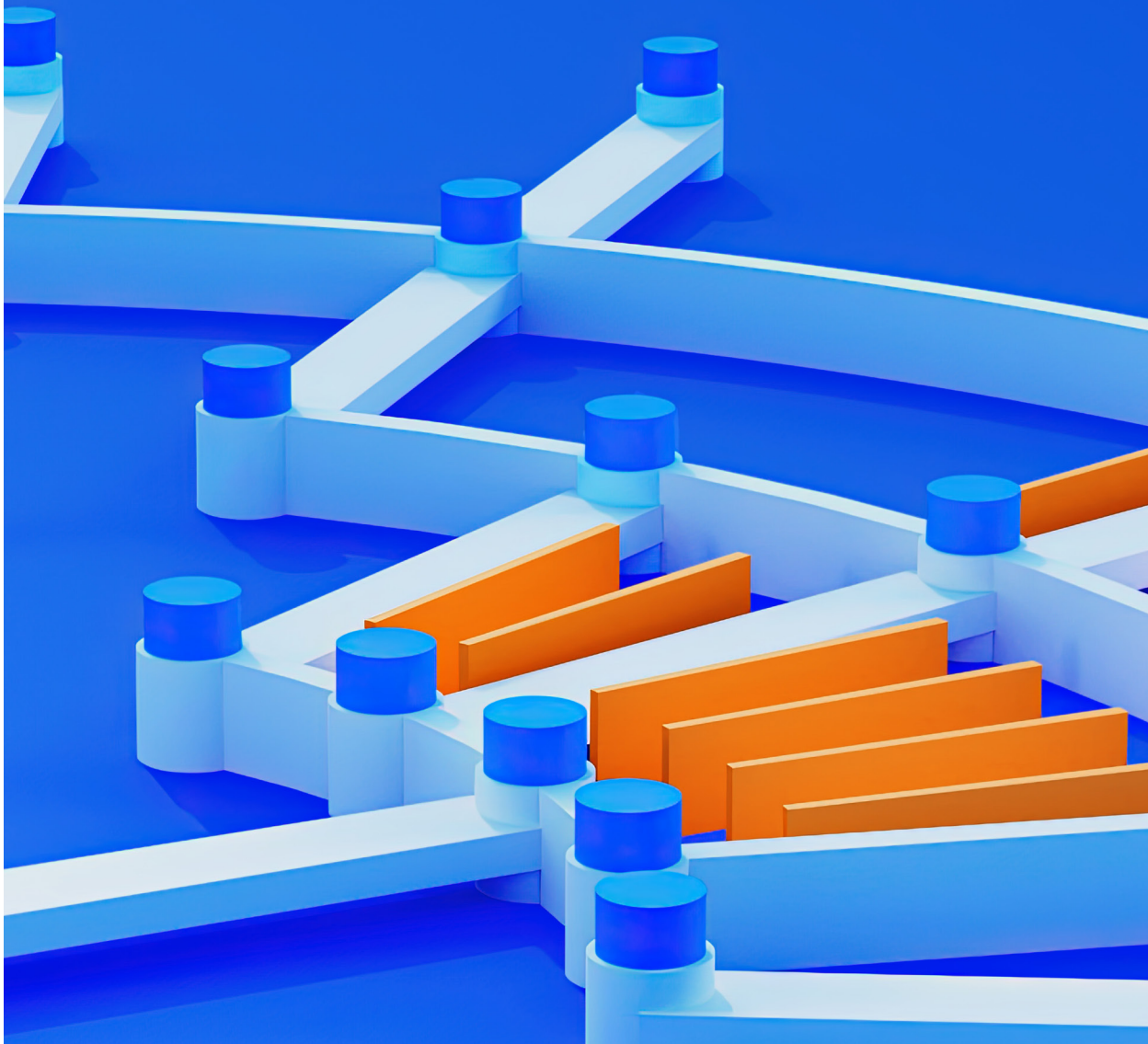
**Chetan Shah**

EVP- Head Trade, Cash and Capital Market Operations and Projects and Automation  
IndusInd Bank

### Part three: Global AI ambition, sovereign design

# Global AI ambition, sovereign design

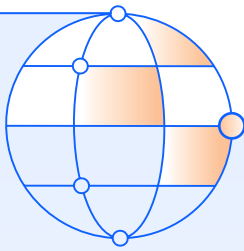
India's role in the global innovation system is entering a new phase—one where the country isn't just contributing to technological progress, but helping shape its direction.



## AI sovereignty in an interdependent world

Sovereignty's long-term advantage will come from the ability to fuse indigenous AI solutions with global advances, creating a self-reinforcing cycle where innovations built in India scale outward, and global breakthroughs adapt quickly to India's scale, languages, and markets.

That shift requires a domestic innovation system that's deeply connected to global AI networks. India needs ecosystems and collaboration hubs that link researchers, startups, and enterprises, along with an open tech stack that allows data, models, and insights to move fluidly for joint development. Indian leaders already recognize the value of this seamless exchange.



# 83%

of executives say the ability to run workloads across global and local environments speeds transformation.

As AI becomes a geopolitical force, India's position in the global system will depend in part on how much control it retains over the foundations of its technology. Global collaboration will remain essential for Indian enterprises, paired with deliberate strategies to mitigate supply chain and geopolitical risk. India needs a clearer playing field for global companies building in India, and for Indian innovations looking to scale abroad. In an AI economy where influence depends on both openness and stability, this balance will shape how India shows up on the world stage.

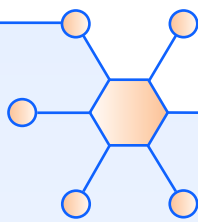
“India's AI mission is a good start, but the funding is minuscule. When global companies are spending \$100–300 billion, our \$1–2 billion commitment is not enough. We risk becoming a pure consumer of AI.”

**Atul Govil**

Chief Transformation Officer and Head (SAP & IT)  
India Glycols

The barriers are clear. Seventy-eight percent say low domestic investment in AI innovation slows adoption. Sixty percent cite limited AI R&D as a top barrier for India to become a global AI hub. Fifty-three percent cite insufficient data sharing frameworks. These should not be viewed as separate problems—they're symptoms of an innovation system that hasn't yet synchronized its parts.

The short-term logic of focusing on AI application is clear, but without stronger bets on building foundational AI, India could limit its role in the global value chain.



Innovation gap:  
Indian start-ups  
focus on applying,  
not building AI

83%

of Indian AI startups  
are focused on applying  
existing AI models to  
Indian or local problems.

21%

are building net-new  
AI models.

The majority of executives sound optimistic. Fifty-three percent believe AI leadership will make India a global startup hub, and 57% believe global AI leadership can improve cost, quality, and innovation competitiveness. Getting there, though, requires deliberate policy choices and capital deployment that build the R&D capacity that will make India a source, not simply a user, of AI capabilities over the long term.

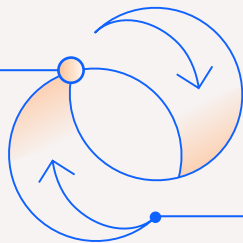
## Perspective

### India's homegrown AI models

India's homegrown AI push spans public and private efforts. The government-backed IndiaAI Mission is focused on sovereign compute, datasets, and multilingual models. Academic initiatives like BharatGPT aim to reduce dependence on foreign foundation models. Meanwhile, startups such as Sarvam AI and Krutrim are commercial by design and intend to compete globally.

These models speak more than 30 languages and are being trained on local languages, accents, and context specific data, so they can interpret and generate content that reflects how people in India actually communicate. They'll be able to handle idioms, expressions, and social cues that Western-trained models often miss. For the first time, India isn't just adapting global AI—it's beginning to create it.

These homegrown systems are competing on more than raw scale; they're built around efficiency, multilingual capability, and contextual relevance, reflecting India's shift from user to contributor in the global AI value chain.



# 73%

of executives are expecting their AI capabilities to be multimodal\* and multi-model by 2030.

\*Multimodal AI can take in and make sense of more than one kind of data at once, such as text, speech, or images.

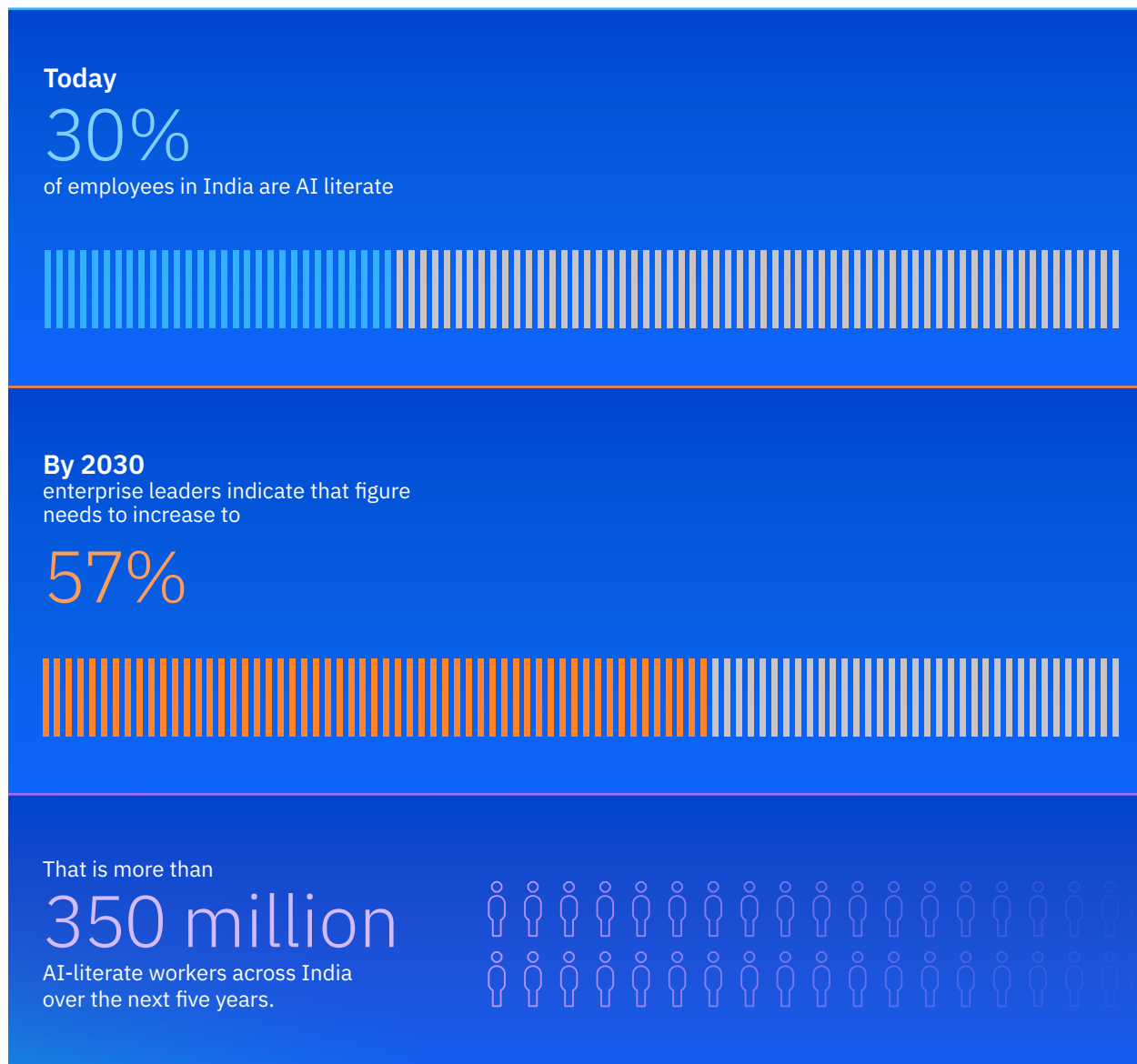
## Preparing the future workforce

India already demonstrates significant AI capability. It is the second largest contributor to global AI GitHub projects,<sup>16</sup> and Indian women have the highest global uptake of AI skills globally.<sup>17</sup> Yet, persistent talent flight overseas for better pay and opportunity drains the country of the very capabilities it needs to build its AI future.

The urgency isn't only about technical talent. It's about the confidence and fluency required across the entire workforce to work alongside AI systems. Today, 30% of employees are AI literate. By 2030, enterprise leaders indicate that figure needs to nearly double to 57%. Applied across the Indian workforce of 600 million people, that's an additional 350 million people that will need to become AI literate by 2030.

Figure 7

### India requires 160 million additional AI-literate people by 2030



This is the capability challenge leaders are wrestling with: not just attracting specialists, but lifting the baseline of the entire workforce so AI becomes something the organization can absorb and adapt to—not something a small team “does” on its behalf. It’s a shift from skill scarcity to skill strategy. And for India, which has one of the world’s largest young workforces, it’s also a competitive advantage waiting to be activated.

That kind of shift demands new learning models, new career pathways, and a broader view of what capability means in an AI-shaped economy. Programs such as IndiaAI FutureSkills are embedding AI fluency into classrooms and corporate learning at scale, with data and AI labs springing up in Tier 2 and 3 cities. Alongside Digital India BHASHINI, which is making online services accessible in dozens of local languages, the country is treating digital inclusion as the foundation of an AI-ready workforce.

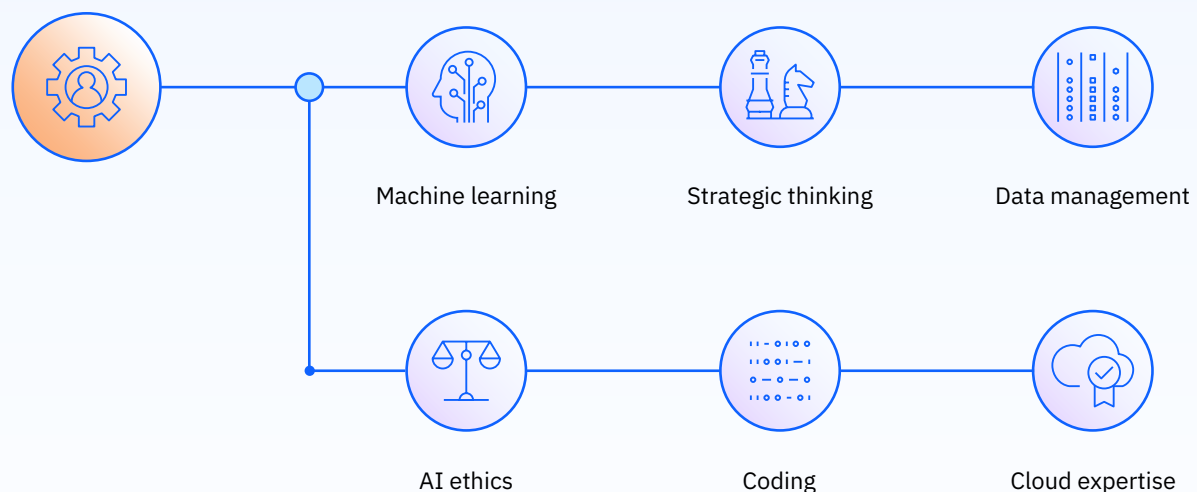
“India can be an AI factory for the world. Twenty percent of GitHub’s coders are from India. But we must pivot from quantity of coders to quality of architects. We need to move from supporting to building.”

**Atul Govil**

Chief Transformation Officer and Head (SAP & IT)  
India Glycols

Figure 8

**India’s most in-demand skills for AI growth**



## Perspective

# India's skills revolution

India's AI readiness is the result of a coordinated national push on skills development, spanning government policy, private-sector training, and university curricula. Alongside IndiaAI FutureSkills, which is embedding AI education and establishing data labs in smaller cities, several complementary initiatives are reshaping how the country learns and works:

**FutureSkills PRIME**—a joint program by the Ministry of Electronics and IT (MeitY) and the National Association of Software and Service Companies (NASSCOM), aimed at training professionals in emerging technologies including AI, data analytics, and cybersecurity. The training will be delivered through NASSCOM's FutureSkills Prime platform, which reaches over 2,100 institutions across India.

**Skill India Mission and National Skill Development Corporation (NSDC)**—drives vocational upskilling programs, now adding AI modules and digital literacy tracks to workforce training centers.

**Digital India BHASHINI**—improves access to AI-enabled digital services in Indian languages, which indirectly supports inclusion and digital literacy across regions.

**Academic partnerships**—Indian Institutes of Technology (IITs) and Indian Institutes of Information Technology (IIITs), as well as leading private institutions are integrating AI and data science into degree programs, helping create a deep technical talent base.

Taken together, these efforts signal a broad national strategy: to turn India's young population into an AI-literate workforce, not just through elite institutions but through regional hubs and vocational channels that reach Tier 2 and Tier 3 cities.

## Enabling AI innovation and entrepreneurship

Policy will play a big role in how fast innovation moves from idea to impact. The government already plays a visible part in enabling AI entrepreneurship, and business leaders want that leadership to deepen. Startups and entrepreneurs need more direct support—funding grants, tax credits, and shared infrastructure that reduce the cost of experimentation.

The need is acute. Sixty-nine percent of startups cite poor data quality and availability as major barriers to deploying AI solutions. Sixty-eight percent point to weak AI governance, and 64% say lack of funding is the single biggest constraint. More than half (52%) struggle with limited access to compute resources.

Regional AI centers of excellence could help close these gaps by connecting startups with industry clients, offering shared compute capabilities, and creating common governance frameworks. Government-enabled networks of this kind would not only accelerate domestic innovation but also strengthen India's position in the global ecosystem.

“Everyone needs to pick this up. Doctors need to know, lawyers need to know, auditors need to know... everyone needs to understand how AI will work in their profession.”

**S. Krishnan**

Secretary of the Ministry of Electronics and Information Technology (MeitY)  
Government of India, New Delhi

“From the government, talent development and AI-specific tax breaks would be most helpful. Those are the two big things that would make a real difference.”

**Ankur Gupta**

CEO, Masin AI

## Setting India up for the next wave of transformation: Quantum readiness

The strategic investments and policies made today must be robust enough to prepare the country for the next inevitable wave of transformation. Indian enterprises must now begin laying the foundations for quantum readiness.

The investments India makes today in its digital infrastructure, data governance, and talent will determine whether it can ride that wave or will have to chase it.

Technology is just one key to quantum success; the hard part may be knowing where to point it and that requires measured foresight. Enterprises that begin experimenting today—understanding how quantum might pair with AI for optimization, logistics, or materials science—will be quietly deciding what the next generation of progress could look like.



## Action guide

# A nearly 1.5-billion- person economy enters the AI era

Claiming the next big economic boost from AI won't follow a neat sequence—India has to advance all three parts of the agenda in parallel.

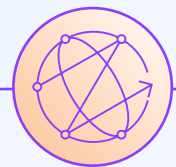


## The \$500 billion question: Can India move in sync on AI?

India's AI trajectory will hinge on progress across three distinct but interdependent fronts.

- 1** **Inside the enterprise:** Overcome pilot stagnation and move to AI at scale, underpinned by hybrid/sovereign infrastructure and a radical upskilling mandate.
- 2** **Across industries:** Convert enterprise gains into multiplicative sector transformation through shared platforms and deliberate orchestration.
- 3** **On the global stage:** Unlock the flywheel that enables indigenous solutions to scale abroad and global innovations to localize fast.

The data maps the tension: the \$500 billion opportunity stands opposite the systemic barriers of skills shortages, governance gaps, and infrastructure constraints. If India can align its enterprise strategies, industry ecosystems, and global positioning, it will not just participate in the AI economy; it will define its direction and its rules. If India gets this alignment right, AI becomes more than a technology shift—it becomes a catalyst for the wider *Viksit Bharat* journey toward a more modern, more connected economy. The window is narrow, momentum is building, and the time for decisive orchestration is now.



If India can align its enterprise strategies, industry ecosystems, and global positioning, it will not just participate in the AI economy; it will define its direction and its rules.

## Fix the data foundations for AI at scale.

- Prioritize the data that matters most. Improve quality, lineage, and interoperability for the datasets powering mission critical workflows—don't chase enterprise wide perfection.
- Embed trust early. Build in security, auditability, and model transparency from the start, not after AI is already in production.

## Architect for sovereignty by design.

- Decide what must be sovereign upfront. Classify workloads by sensitivity so regulated data, core models, and critical decision systems run on India based sovereign infrastructure—while staying interoperable with global platforms.
- Treat sovereignty as a trust and resilience layer. Use it to ensure control, transparency, and regulatory confidence as AI enters mission critical workflows, and rely on open standards to avoid lock in.

## Build India's next wave of enterprise value by scaling AI in core workflows.

- Redesign one or two high value workflows end to end with AI at the center. Treat AI as a collaborator embedded in decisions, routing, and exception handling—not a bolt on tool.
- Modernize operating models alongside technology. Update funding, governance, and performance metrics so AI becomes a sustained enterprise capability, not a series of projects.

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“In the next three years, the nature of work will change more than it has in the last 30... AI is now building AI—and the rate of progress has become five to 10 times faster. “

**Atul Govil**

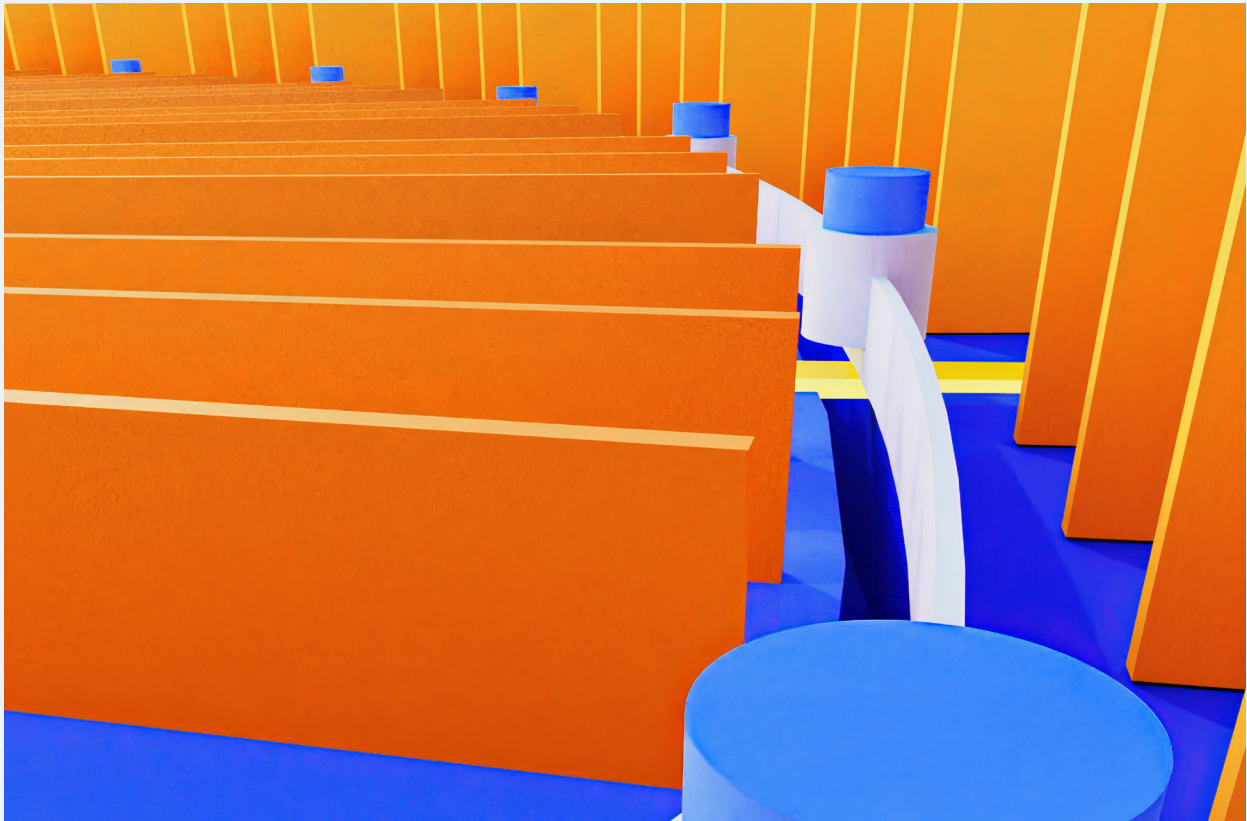
Chief Transformation Officer & Head (SAP and IT)  
India Glycols

## Use India's digital public infrastructure as shared rails for industry transformation.

- Plug into India's digital public and industry platforms. Use cloud and AI as the connective fabric linking suppliers, regulators, and partners through trusted data and model exchanges.
- Codesign governance for shared intelligence. Align on standards for data use, model behavior, accountability, and risk so collaboration can scale without eroding trust.

## Create a nationwide baseline of AI fluency to unlock India's next productivity wave.

- Treat AI literacy as a requirement across the workforce—managers, frontline employees, and public servants—not just technical specialists.
- Link learning directly to work. Tie training to real projects, apprenticeships, and redesigned roles so new skills translate into measurable productivity.



## About the authors

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Sandip is the Managing Director of IBM India and South Asia, leading the region's sales, services, and delivery while advancing IBM's hybrid cloud and AI agenda. Since 2020, he has driven growth across the region and helped scale IBM's global research and innovation footprint in India. Previously, he led IBM's global insurance business and served as President of Aetna International, bringing decades of experience in large-scale transformation across industries and geographies.

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Abhishek is the Director General of NIC and Additional Secretary at MeitY, where he drives India's national agenda on artificial intelligence, emerging technologies, and digital inclusion. As CEO of the IndiaAI Mission, he leads the country's push to build sovereign AI capability at population scale, bringing together deep field experience and national level policy leadership.

## Research methodology

This report draws on multilayered research combining quantitative surveys, pulse-based sentiment tracking, expert insights, and secondary analysis to understand the state and trajectory of AI adoption in India.

### **Primary research**

Our research partner, Oxford Economics, conducted a large scale survey of 1,500 Indian executives across industries including respondents from the public sector (union as well as state governments), automotive, aerospace and defense, banking and financial markets, chemicals & petroleum, retail and consumer, energy & utilities, electronics, healthcare & life sciences, industrial products, information technology & services, insurance, telecom, and travel & transportation. Respondents represented diverse organizational sizes and leadership roles, spanning CEOs, CTOs, CAIOs, CDOs, Chief strategy officer / head of strategy, and departmental heads managing cloud and AI strategies under union and state governments.

The survey explored:

- AI adoption maturity and expected evolution by 2030
- Cloud and data infrastructure readiness
- Governance, operating model, and security foundations
- Workforce skill levels and future capability needs
- Sector-specific opportunities and barriers
- Broader national-level AI innovation, sovereignty, and infrastructure priorities

Data was gathered through structured survey questionnaires; the data was validated for completeness, consistency, and statistical reliability.

A supplementary pulse survey of 405 Indian executives was conducted by the same agency to capture rapid shifts in sentiment around AI governance, operating model readiness, security practices, and ecosystem partnerships.

This short format survey provided:

- Real-time insights into organizational preparedness
- Readouts of governance and security adoption
- Data on people, processes, and technology foundations
- Perspective on partner strategies and scaling approaches

Responses underwent quality screening to remove incomplete or low engagement submissions.

### Secondary research & expert inputs

Survey insights were synthesized with:

- Interviews and commentary from policymakers, enterprise CIOs, and AI leaders
- Publicly available government documents, policy frameworks, and AI ecosystem reports
- Case studies from Indian enterprises deploying AI at scale
- Market and economic data relevant to India's digital and AI landscape

This ensured that the findings reflected both quantitative trends and on the ground realities.

### Analytical approach

- Multi-response questions were analyzed using valid case percentages.
- Trend comparisons (e.g., 2025 vs. 2030 expectations) were derived directly from respondent data.
- Cross tabulations were used to compare AI maturity, sector differences, and readiness gaps.

### Analysis for AI-led business transformation on India's annual GDP growth by 2030

To calculate the economic value AI could unlock, we took the current GDP of India as our baseline. According to the World Bank, this was USD 3.91 trillion in 2024.<sup>18</sup> We then contrasted the economic impact of two different scenarios: a low AI-adoption scenario versus an extensive AI-led business transformation scenario. The impact for each scenario was estimated based on survey responses to the following two questions:

Question for low scenario: What estimated improvement to Indian GDP by 2030 would you expect if limited AI adoption focused on select use cases in individual functions occurs at scale across Indian economy? The mean value of responses to this question is 3.02%. Applying this to current GDP yields an expected GDP by 2030 USD 4.028 trillion.

Question for high scenario: What estimated improvement to Indian GDP by 2030 would you expect if extensive AI-led business transformation unlocking new revenue/budget streams occurs across Indian economy? The mean value of responses to this question is 16.91%. Applying this to current GDP yields an expected GDP by 2030 of USD 4.571 trillion.

The difference between the two scenarios is USD 0.543 trillion (~USD 500 billion).

### Analysis for AI-literate workforce requirement in India by 2030

To calculate the AI-literate workforce required in India by 2030, we used India's current labor force\*\* (which is 618 million) as a baseline.<sup>19</sup> We then applied the mean value of responses to the following question in our survey: What percentage of your workforce do you need to be AI literate to execute your digital transformation goals by 2030? This was 57% (from respondents). Applied to India's current labor force, this is equivalent to 352 million people.

## How IBM can help

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