



The AI Maturity Model

Evaluating
readiness for
AI agents

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Introduction

The emergence of generative AI (GenAI) has created an unprecedented opportunity for business transformation, with more organizations considering AI agents to augment and increase the productivity of their workforce. A survey by **Economist Impact**, commissioned by Databricks, found that 85% of organizations actively use GenAI in at least one business function, reaching 97% among companies with revenue over \$10 billion.

However there's a disconnect between experimentation and value creation. While many organizations are experimenting with generative AI, few have developed the comprehensive capabilities needed to integrate AI agents effectively into their operations and drive measurable business value at scale. This gap highlights the challenge of moving AI projects beyond proof of concept to tangible outcomes.

This is why measuring and understanding AI maturity is crucial. Organizations need a clear framework to assess where they stand today and chart a course toward greater AI capability. While there are numerous AI maturity models available, the Databricks AI Maturity Model provides a structured approach to integrating AI maturity as companies incorporate agentic AI and develop AI applications. Organizations can use this model to assess their current AI capabilities, identify areas for improvement and create a strategic roadmap for successfully implementing AI-driven applications and agentic AI systems.

The challenge is clear: While the potential of AI is immense, the path to value requires a thoughtful, systematic approach across multiple dimensions of organizational capability. Success with AI isn't simply about deploying the latest models or launching isolated experiments. It requires a holistic transformation that touches every aspect of an organization's operation. The Databricks AI Maturity Model provides this framework, examining six critical pillars that together determine an organization's ability to create sustainable value from AI.

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
Strategy: AI vision that's defined, communicated and integrated within an organization's overall business objectives	<ul style="list-style-type: none"> Is your AI strategy aligned with business goals? Has it been communicated across the organization? Do you have a structured, value-driven process to identify, prioritize and measure the impact of use cases, ensuring that they contribute meaningfully to your business? 	<ul style="list-style-type: none"> Clear executive sponsorship AI integrated into company-wide goals Regular strategy reviews 	High — Requires leadership buy-in and cross-functional collaboration	<ul style="list-style-type: none"> Executive leadership Strategy teams Line of business teams IT
Governance: Robust governance frameworks that ensure responsible and appropriate use and mitigate risks related to privacy, security and compliance	<ul style="list-style-type: none"> Are governance frameworks established for AI security, privacy, compliance and ethics? Do you have unified governance and lineage across all the assets in your GenAI projects, including data, models, feature tables, vector indexes and tools/functions? 	<ul style="list-style-type: none"> AI governance policies in place Risk mitigation strategies Compliance with industry standards 	High — Involves legal, security and compliance efforts	<ul style="list-style-type: none"> Compliance Risk Management Legal Data Governance Security
Business Use Cases: Effective identification, prioritization and implementation of AI applications that can drive an organization's tangible business outcomes	<ul style="list-style-type: none"> Have AI use cases been identified and prioritized? Are they deployed into production? Have you identified specific use cases that could be augmented or automated using AI? 	<ul style="list-style-type: none"> Defined success metrics AI applications generating business value Expansion of AI initiatives 	Medium — Involves business unit engagement and analytics capabilities	<ul style="list-style-type: none"> Product teams Operations Data Science
Design and Architecture: Technical foundations and architectural patterns to enable successful AI agent implementations that are tuned with an organization's enterprise data	<ul style="list-style-type: none"> What GenAI architectural patterns have you built as part of your applications? Can your architecture support AI agents? Is your platform architecture modular such that you can swap different GenAI models in and out easily? 	<ul style="list-style-type: none"> Scalable AI infrastructure Seamless integration with enterprise data Ability to adapt to new models 	High — Requires technical investment in AI platforms and cloud computing	<ul style="list-style-type: none"> IT Data Engineering Software Development
Operations: Robust practices and processes for deploying, monitoring and optimizing AI systems in production	<ul style="list-style-type: none"> Have you implemented MLOps/LLMOps best practices to ensure the reliable deployment, monitoring and optimization of your GenAI models in production? How do you measure whether your GenAI application's results are production quality (safe and accurate)? 	<ul style="list-style-type: none"> Reliable model deployment Automated monitoring systems Efficient model updates 	Medium — Needs operational workflow integration	<ul style="list-style-type: none"> IT Operations DevOps AI Engineering
People: The right mix of talent, skills and training to drive AI transformation	<ul style="list-style-type: none"> Do teams have AI expertise? Do you have established training paths for various personas in your organization? What's your team's approach or culture in using AI in their daily work? 	<ul style="list-style-type: none"> AI skill-building initiatives Cross-functional collaboration AI literacy at all levels 	Medium — Requires structured learning programs	<ul style="list-style-type: none"> HR Learning and Development AI centers of excellence

For each pillar, organizations progress through distinct stages of maturity, from initial experimentation to full transformation. This progression isn't merely theoretical — it directly impacts business outcomes. As organizations mature, they move from isolated cost savings to new revenue streams, enhanced customer experiences and ultimately to fundamental business model innovation.

73%

Companies that say GenAI is critical to their long-term strategic goals

Economist Impact

The stakes are high. Organizations that successfully navigate this transformation gain powerful competitive advantages. They can respond more quickly to market changes, deliver better customer experiences and operate with greater efficiency. Those that lag behind risk being left at a significant disadvantage.

The Databricks AI Maturity Model is designed to help organizations navigate this critical transformation. By providing a clear framework for assessment and progression, it enables leaders to:

- Understand their current state of AI maturity across key dimensions
- Identify specific gaps and opportunities for improvement
- Learn from the experiences of organizations that have successfully progressed through various maturity stages
- Create actionable roadmaps for advancing their AI capabilities
- Measure and track progress over time

In the following chapters, we'll explore each pillar in detail, examining the characteristics of different maturity stages and providing practical insights for progression based on our experience with customers. Whether your organization is just beginning its AI journey or looking to scale existing initiatives, this framework provides a valuable tool for assessing where you are today and charting a course toward greater AI maturity.

Unless otherwise noted, all quotes are from the [Economist Impact 2024](#).

PILLAR 1

Strategy

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
Strategy: AI vision that’s defined, communicated and integrated within an organization’s overall business objectives	<ul style="list-style-type: none">■ Is your AI strategy aligned with business goals?■ Has it been communicated across the organization?■ Do you have a structured, value-driven process to identify, prioritize and measure the impact of use cases, ensuring that they contribute meaningfully to your business?	<ul style="list-style-type: none">■ Clear executive sponsorship■ AI integrated into company-wide goals■ Regular strategy reviews	High — Requires leadership buy-in and cross-functional collaboration	<ul style="list-style-type: none">■ Executive leadership■ Strategy teams■ Line of business teams■ IT

This pillar focuses on how well an organization has defined, communicated and integrated their AI vision with overall business objectives. As organizations progress from having little to no formal strategy to a fully established and board-approved approach, they transition from isolated AI experiments to driving measurable business impact.

Over 75%

of companies considered AI leaders have C-level sponsorship of their AI initiatives, usually from the CEO or board. MIT/McKinsey

Organizations at the early stages of AI maturity often struggle with fragmented initiatives, unclear ownership and lack of alignment between AI and broader business goals. As AI strategy matures, successful companies ensure their AI vision is deeply embedded in the organization’s culture, processes and technology stack. They establish clear executive sponsorship, define AI success metrics linked to business outcomes and create structured governance frameworks to guide responsible AI adoption.

Only 26%

of companies that have adopted AI have developed the necessary set of capabilities to move beyond proofs of concept and generate tangible value. BCG

The most advanced organizations aren't just deploying AI — they're beginning to integrate AI agents and agentic AI applications directly into core workflows, enabling systems that can reason, plan and autonomously execute complex tasks. Instead of relying solely on human intervention, agentic AI allows organizations to build AI-driven assistants that continuously learn, adapt to changing business conditions and proactively make data-informed decisions. This shift transforms AI from a passive analytics tool into an active participant in business operations, optimizing processes, personalizing customer interactions and identifying new opportunities in real time.

As AI maturity increases, the benefits grow exponentially. Initially, companies may achieve operational efficiencies, cost savings and enhanced data accessibility. At higher maturity levels, AI drives personalized customer experiences, predictive analytics for business growth and AI-powered decision intelligence that unlocks new market opportunities. The integration of agentic AI further amplifies these benefits by automating high-value tasks, improving business agility and enabling truly intelligent enterprise systems.

"Against every dollar, every penny of compute, we should be able to articulate what the return is."

— Jon Francis, Chief Data and Analytics Officer, GM

A well-defined AI strategy ensures that companies move from reactive, tactical AI deployments to proactive, enterprise-wide transformation, positioning AI as a key driver of competitive advantage and long-term success. A mature AI strategy goes beyond experimentation — it fully leverages data intelligence to empower every business function with proactive, natural language-driven decision-making.

"Once you combine business efficiency, business outcomes and business upskilling, you start to see AI applications impact all areas of your business because they're the baseline of your PNL."

— Gereurd Roberts, Group Managing Director, Seven Digital, Seven West Media

PILLAR 2

Governance

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
Governance: Robust governance frameworks that ensure responsible and appropriate use and mitigate risks related to privacy, security and compliance	<ul style="list-style-type: none">Are governance frameworks established for AI security, privacy, compliance and ethics?Do you have unified governance and lineage across all the assets in your GenAI projects, including data, models, feature tables, vector indexes and tools/functions?	<ul style="list-style-type: none">AI governance policies in placeRisk mitigation strategiesCompliance with industry standards	High — Involves legal, security and compliance efforts	<ul style="list-style-type: none">ComplianceRisk ManagementLegalData GovernanceSecurity

The Governance pillar encompasses the practices, policies and frameworks required to ensure responsible, secure and compliant data use across assets involved in generative AI (GenAI) and AI-driven projects. As organizations mature, they transition from fragmented or nonexistent governance structures to establishing a unified governance model that spans structured and unstructured data, AI/ML models, notebooks, dashboards, files and applications deployed across multiple cloud environments and platforms. This evolution is critical for maintaining control, security and compliance while scaling AI initiatives efficiently and ethically.

Organizations at early maturity stages can lack standardized processes for data governance, risk management and regulatory compliance, leading to data silos, inconsistent policies and potential security vulnerabilities. However, as AI governance matures, leading enterprises implement centralized oversight mechanisms that enforce data lineage tracking, model auditing, explainability requirements and real-time policy enforcement. Automated governance frameworks powered by AI also help identify biases, monitor drift in AI models and ensure fairness in AI-driven decision-making.

At the highest level of maturity, organizations integrate comprehensive access controls, automated lineage tracking and real-time auditing across all AI and data assets. These controls extend beyond traditional datasets to include GenAI models, AI-generated content and agentic AI applications, ensuring transparency, accountability and compliance with internal policies and external regulations (such as GDPR, the EU AI Act and emerging AI governance laws). Cross-functional governance teams — involving compliance officers, AI ethics committees, security leaders and business executives — become essential in continuously evaluating risks, updating policies and enforcing AI governance at scale.

Data privacy and security as a top priority

Organizations have always prioritized responsible data handling, but GenAI applications introduce new challenges that require comprehensive safeguards. As Mohit Kapoor, Group Chief Technology Officer at Mahindra Group, puts it, “In the old world, trust was established by walking in the branch, getting to know the manager and talking about the product. Now trust has to be established through cybersecurity and data privacy, and the customer needs to know that data will not be misused for any purpose.”

When training GenAI models on customer data, organizations need to implement robust security measures and carefully consider privacy implications. Additionally, organizations need clear policies for processing and storing the private data used during model inference to ensure proper protection at every stage of data exchange.

Security concerns are driving many organizations to carefully choose their AI deployment approaches. Ian Botts, CTO at Fanatics Betting & Gaming, explains that effective AI governance requires multiple components: “First, it’s building the guardrails for what you can and can’t do . . . Second, it’s mechanisms — and building out mechanisms — that enforce those guardrails. And third, it’s having dedicated data governance, which is almost like a compliance function to ensure that it’s being audited and that [companies are] being transparent. I think the transparency point is incredibly important because it drives better decisions.”

The context in which data is used to build GenAI applications, along with the company’s industry, significantly impacts data security standards and compliance requirements. The U.S. Army, for instance, has made data protection a core part of their AI strategy and leadership training. Leonel Garciga, CIO at the U.S. Army, states, “We’re moving away from data literacy being a specialized skill.” All employees must understand data protection, platform use and centralized data storage. The U.S. Army has incorporated these into their leadership training and recognizes that managing sensitive data is crucial to the Army’s AI use cases. In healthcare, organizations must be especially careful. Roman Bugaev, CTO at Flo Health, notes that tolerance for errors in AI systems is much lower than for human errors, making data protection and accuracy even more critical.

Some companies are taking a hybrid approach to protect sensitive data. Mohit Kapoor, Group Chief Technology Officer at Mahindra Group, explains, “We ensure data is always identifiable so that it can be segregated, but we can also anonymize that data to drive insights from across our companies.” Takaaki Sato, Senior Executive Vice President and CTO at NTT Docomo, emphasizes the range of security challenges: “Numerous issues, such as privacy protection, security measures, IP issues, ethical concerns and the problem of deepfakes need to be addressed. It’s essential to maximize the benefits of AI technology by overcoming these challenges in collaboration with relevant parties.”

These approaches to data protection reflect how organizations are working to balance innovation with security as they implement GenAI use cases across their operations.

As organizations look to harness agentic AI, strong governance becomes even more crucial. While AI agents enhance productivity and decision-making autonomy, they also introduce new challenges, such as ensuring the accuracy, security and reliability of AI-generated outputs. Without clear governance guardrails, AI agents may generate biased insights, leak sensitive information or operate in ways that contradict ethical or regulatory standards. The most advanced organizations mitigate these risks by implementing AI observability tools, real-time intervention mechanisms and predefined escalation paths for AI-generated decisions.

AI governance isn’t just a compliance requirement — it’s a strategic enabler that allows businesses to scale AI confidently, minimize risks and build trust with their customers in AI-driven systems. Organizations that embed strong governance from the start are best positioned to leverage AI as a competitive advantage while maintaining ethical integrity and regulatory compliance.

The Databricks Data Intelligence Platform provides a governance framework via Unity Catalog, which manages lineage, access and auditability across data and AI. Unity Catalog automatically tags and organizes assets with contextual metadata, ensuring scalable and secure AI governance.

Unified governance

As organizations evolve, it becomes clear that multiple siloed security and governance systems are a major impediment to success. Creating a unified approach to governance across both data and AI maintains consistency and control across the entire AI initiative.

Many organizations are finding success through unified approaches. According to Greg Ulrich, Chief AI and Data Officer at Mastercard, “We have an intake process, by which I mean a centralized function that [considers GenAI implementation ideas from across the company, and] the number of ideas keeps increasing every day.”

Some companies are creating unified environments to enable data-driven decision-making. Rivian, an EV manufacturer, has integrated information from across their complex systems, including supply chain, commercial operations and financial departments, into a unified environment, enabling data-driven decision-making at all levels of the organization.

JetBlue emphasizes the importance of a unified data source. Carol Clements, Chief Digital and Technology Officer at JetBlue, attests, “You can have all the AI in the world, but if it’s on a shaky data foundation, then it’s not going to bring you any value.”

This focus on creating a single source of truth and unified governance extends beyond just data handling and storage — it encompasses all GenAI assets across the organization playing different roles in delivering GenAI applications.

UPS has taken a systematic approach through their Data Mesh system. Ken Finnerty, President of IT and Data Analytics at UPS, explains, “It’s powerful because it can combine different ML models in a quick time frame. If tomorrow we wanted to infuse a GenAI model into it, we’d be able to do that because we’ve got all the platforms and orchestration in place to do it.”

Mastercard has also implemented a systematic approach to evaluate AI initiatives. Greg Ulrich describes their process: “Through this we see ideas increasing in two ways. First, as we find what drives value, the percentage of ideas that make it through the funnel increases. And second, even if the percentage of ideas that are actually commercialized remains small, you’ll still see a lot happening because we’re growing the denominator of ideas.”

Models, tools and other GenAI assets operate across multiple systems within the organization and require clearly established protocols to align the assets with the organization’s specific needs. TD Bank emphasizes the importance of aligning AI governance with existing risk frameworks in finance. Jeff Martin, Senior VP and Chief Data Officer at TD Bank Group, states, “As organizations begin using AI to inform key decisions, they must still work within agreed-upon risk models. For example, any approach that TD takes to leverage AI must be within our risk appetite and regulatory obligations.”

PILLAR 3

Business Use Cases

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
Business Use Cases: Effective identification, prioritization and implementation of AI applications that can drive an organization's tangible business outcomes	<ul style="list-style-type: none">Have AI use cases been identified and prioritized?Are they deployed into production?Have you identified specific use cases that could be augmented or automated using AI?	<ul style="list-style-type: none">Defined success metricsAI applications generating business valueExpansion of AI initiatives	Medium — Involves business unit engagement and analytics capabilities	<ul style="list-style-type: none">Product teamsOperationsData Science

The Business Use Cases pillar evaluates an organization’s ability to identify, prioritize and successfully implement generative AI (GenAI) and AI agent use cases that deliver measurable business value. This journey begins with experimental, small-scale pilots — often isolated within specific teams or departments — and evolves toward enterprise-wide AI integration that fundamentally transforms business processes, products and customer experiences.

20%

Number of AI pilots that end up in production at Seven West Media

Economist Impact

“It requires a heap of experimentation in working out what’s going to create value.”

— Gereurd Roberts, Group Managing Director, Seven Digital, Seven West Media

At early maturity stages, organizations may lack a structured approach to AI adoption, experimenting with one-off GenAI applications without a clear link to business impact. These early efforts are often driven by technical curiosity rather than strategic alignment, leading to scattered projects with limited scalability. However, as organizations develop AI maturity, they introduce systematic frameworks for evaluating, prioritizing and measuring AI initiatives, ensuring that every use case aligns with core business goals, enhances operational efficiency or creates new revenue opportunities.

“Across 15 to 20 sessions, we identified 200 ideas with huge potential and launched 50 use cases. Less than 20% are in production right now. It doesn’t mean that the rest of the use cases aren’t valid — they’re coming into production. It means that this technology is completely new, and the challenge companies are facing is how to launch their initiatives and get them into production.”

— Juan José Casado, Chief Digital Officer, Repsol

Mid-maturity organizations establish formal processes for use case identification and impact assessment, moving beyond intuition-based AI adoption to data-driven decision-making. At this stage, companies begin leveraging structured ROI models that assess AI’s contributions to cost savings, efficiency gains, customer satisfaction and competitive differentiation. AI becomes an integral part of business strategy, with defined ownership across product teams, operations, finance and executive leadership.

At the highest level of maturity, AI is embedded across business functions, applications and customer interactions, creating an intelligent enterprise where AI agents autonomously optimize workflows, enhance decision-making and drive continuous innovation. Organizations don't just use AI to support existing processes — they reimagine entire business models around AI capabilities.

Key success factors in this pillar include:

- **AI as a business driver:** Moving from AI as a support tool to AI as a core enabler of growth, innovation and customer experience transformation
- **Scalable AI frameworks:** Developing standardized methodologies for identifying, testing and scaling high-impact AI use cases
- **Measurable AI ROI:** Establishing clear KPIs and performance metrics that link AI investments to tangible business outcomes
- **Cross-functional collaboration:** Ensuring alignment between technical teams, business leaders and frontline employees to maximize AI effectiveness

With the Databricks Data Intelligence Platform, technical and nontechnical users alike can explore use cases using natural language. Leveraging features ranging from AI/BI Dashboards to prebuilt GenAI templates, businesses can move from discovery to production faster while maintaining alignment with operational KPIs. The Databricks Platform supports use cases across finance, healthcare, retail, energy and more.

Organizations that excel in this pillar can see progressively larger returns as they transition from isolated proofs of concept to comprehensive, AI-driven business transformations. By embedding AI across products, processes and decision-making frameworks, they create a self-reinforcing cycle of value generation, positioning AI as a long-term competitive differentiator.

“What will the implementation cost be, as well as ongoing costs, and what is the return? . . . New [technology] doesn’t get a pass on going through the rigorous process of working to understand the business case and the value it provides.”

— Melissa Pint, Chief Digital Information Officer, Frontier Communications

Leaders develop tactics to identify and prioritize use cases

Companies can struggle to prioritize use cases and many feel lost in a sea of small-scale pilots. Structured approaches can help prioritize the most value-enhancing projects as a foundation for scaling across units and functions. Table stakes refer to straightforward use cases like optimizing customer contact center operations, marketing functions or coding workflows. Strategic bets represent innovative and experimental use cases. “No enterprise has the manpower capital to explore 200 use cases, because not all 200 are going to be important. You need to funnel that down, crystallize your strategic bets and table stakes, and use your AI center of excellence as the guiding light,” says Scott Hallworth, Chief Data and Analytics Officer at HP.

Hallworth says HP also separates use cases into two buckets. Dimension one is individual use cases with dedicated data scientists, technologists and engineers focused on creating productivity improvements, deeper insights and recommenders. Companies can also benefit from setting up governance structures and technical environments to make experimentation methodical and intentional so they can understand impact, as with Providence, a healthcare organization. Each organization will have their own means of differentiating use cases — but they need to have a structured way of making those decisions.

PILLAR 4

Design and Architecture

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
Design and Architecture: Technical foundations and architectural patterns to enable successful AI agent implementations that are tuned with an organization's enterprise data	<ul style="list-style-type: none">What GenAI architectural patterns have you built as part of your applications?Can your architecture support AI agents?Is your platform architecture modular such that you can swap different GenAI models in and out easily?	<ul style="list-style-type: none">Scalable AI infrastructureSeamless integration with enterprise dataAbility to adapt to new models	High — Requires technical investment in AI platforms and cloud computing	<ul style="list-style-type: none">ITData EngineeringSoftware Development

The Design and Architecture pillar focuses on the technical foundation and architectural patterns that enable scalable, efficient and enterprise-ready AI implementations. As organizations evolve, they progress from basic experimentation with off-the-shelf AI models to custom-built AI systems that are deeply integrated with their enterprise data. This progression involves not just deploying AI models, but also optimizing infrastructure, data pipelines and governance frameworks to ensure AI solutions are reliable, cost-effective and aligned with business needs.

Only 22%

of organizations say their current architecture is fully capable of supporting the unique demands of AI workloads, and just 23% say their current architecture fully integrates AI applications to relevant business data. **Economist Impact**

At early stages of AI maturity, organizations typically experiment with pretrained models and basic AI applications, such as using GenAI for document summarization, chatbots or simple automation tasks. These implementations rely heavily on prompt engineering and lack deep customization, meaning they provide generalized results rather than business-specific insights.

As AI maturity increases, organizations invest in stronger data architectures and AI model customization.

This includes:

- **Retrieval augmented generation (RAG):** Combining GenAI with enterprise-specific knowledge sources to enhance accuracy and relevance
- **Fine-tuning AI models:** Training models on domain-specific data to improve performance for industry- or company-specific use cases
- **Hybrid AI approaches:** Incorporating classical machine learning, deep learning and GenAI models together to choose the best approach for different tasks

A key milestone in architectural maturity is the ability to generate highly accurate, business-specific results rather than relying on generic AI outputs. This requires well-structured enterprise data, robust MLOps/LLMOps pipelines and governance mechanisms to monitor model performance and ensure responsible AI deployment.

To strengthen governance, architects are focusing on implementing custom APIs (58%), human-in-the-loop processes (55%) and integrating ML models into familiar data tools (52%). **Economist Impact**

At higher maturity levels, organizations shift from single-model deployments to modular, AI agent-based architectures. These architectures allow for:

- Multiple specialized AI models working together to handle different tasks within a workflow (e.g., one model for natural language understanding, another for data retrieval and another for decision-making)
- Dynamic model selection, where AI systems can choose the best model for each scenario, optimizing for speed, cost and accuracy
- Seamless integration across cloud environments, enabling AI-powered applications to run efficiently across different platforms without vendor lock-in

58%

of data scientists augment their LLMs with proprietary data through RAG — the use of a knowledgeable external source by an LLM when inferring or producing an output — while 45% say they use LLMs off the shelf without connecting to their data. 21% do both.

Economist Impact

Organizations that excel in the Design and Architecture pillar deploy more than just AI models — they develop scalable, flexible AI agents. Their architectures are designed to support both current AI applications and future innovations, ensuring AI-driven solutions can evolve alongside business needs. A well-architected AI agent solution delivers high-quality, cost-efficient AI outputs, and enables faster experimentation, easier deployment of new models and long-term AI sustainability.

Mosaic AI brings advanced capabilities for developing AI agents. It allows organizations to customize their AI models with enterprise data while maintaining quality and accuracy, and end-to-end security and governance.

Building an AI architecture that has high accuracy

Providence evolved the integrations and data access provided to their GenAI models. Regarding the architecture of their patient-facing chatbot, Sara Vaezy, Chief Strategy and Digital Officer at Providence, notes, “We have a comprehension layer that processes and understands what the person is trying to get accomplished. And then we’re able to connect them to a fulfillment layer.”

This pattern uses large language models (LLMs) for advanced intent recognition, achieving 90% comprehension rates compared to 50% with traditional ML approaches. The architecture includes extensive MLOps and LLMOps components for model drift detection and quality maintenance. That’s accompanied by runtime monitoring and an annotation lab that audits 20% of the conversations. “We’re taking millions of utterances between our consumers and us. So folks can access this interactive customer service–like experience in any of our digital properties. And we’ve seen about a 25% reduction in administrative messages sent, and an 8% reduction overall, in MyChart messages generated by occupation,” cites Vaezy.

As for their provider-focused system, ARIA (Automated Real-Time In-basket Assistant), Providence developed a pattern that combines LLM-based comprehension with clinical context integration. As Vaezy explains, “It essentially uses that same approach to comprehension that we’re using on the other product . . . understands what the need is from the patient and combines that with the clinical context from the record from the patient’s chart.” This architectural pattern is sophisticated enough that they’re in the process of patenting it. The results have been significant — cutting provider response time from 48 hours down to 24 hours and reducing chart review time from 30 minutes to just a handful of minutes.

PILLAR 5

Operations

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
Operations: Robust practices and processes for deploying, monitoring and optimizing AI systems in production	<ul style="list-style-type: none">Have you implemented MLOps/LLMOps best practices to ensure the reliable deployment, monitoring and optimization of your GenAI models in production?How do you measure whether your GenAI application's results are production quality (safe and accurate)?	<ul style="list-style-type: none">Reliable model deploymentAutomated monitoring systemsEfficient model updates	Medium — Needs operational workflow integration	<ul style="list-style-type: none">IT OperationsDevOpsAI Engineering

Organizations that excel in AI operations establish scalable, repeatable and sustainable workflows that transform AI from an experimental technology into a core business function. The benefits of mature AI operations include:

- Faster deployment cycles:** Reducing the time it takes to move from development to production
- Improved reliability:** Ensuring AI applications remain accurate, explainable and aligned with evolving business needs
- Optimized resource utilization:** Reducing infrastructure costs and computational overhead
- Scalability:** Allowing AI initiatives to expand across teams, products and geographies without operational bottlenecks

Ultimately, organizations that master AI operations create AI agents that do more than just work — they work consistently, efficiently and at scale, ensuring AI delivers long-term, measurable business impact. As AI operations mature, organizations establish systematic processes for model lifecycle management, including:

- **Automated model monitoring:** Tracking model accuracy, drift and performance in real time to ensure AI outputs remain reliable
- **Performance optimization:** Implementing cost-efficient infrastructure, fine-tuning models based on business needs and dynamically adjusting compute resources
- **Version control and continuous integration:** Using DevOps-inspired practices to manage AI model updates, rollback mechanisms and collaboration across teams

At higher levels of operational maturity, organizations adopt hub-and-spoke or center of excellence (CoE) models to balance centralized governance with distributed AI innovation. This approach allows for:

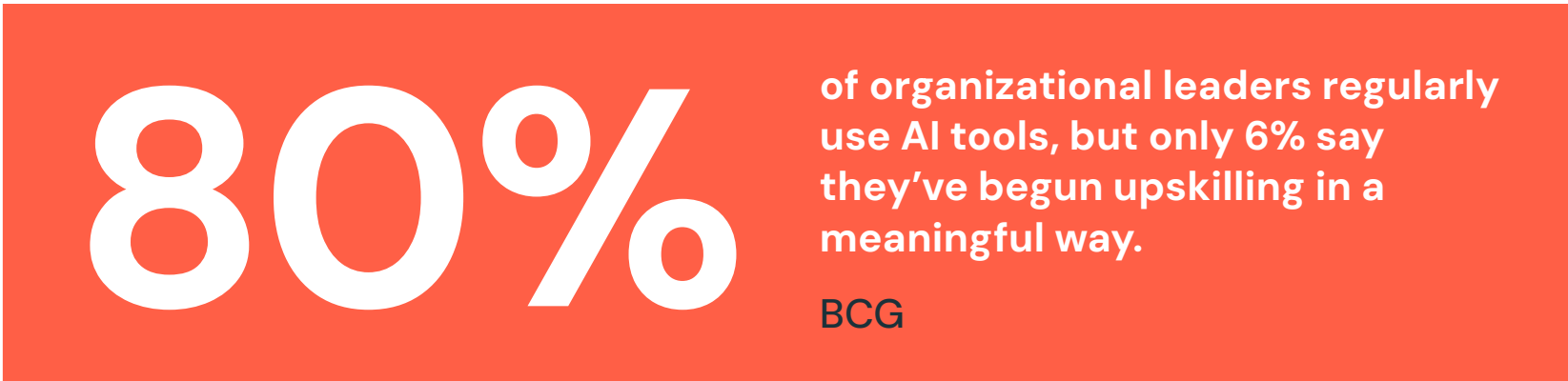
- Standardized governance frameworks that ensure AI deployments comply with security, privacy and ethical guidelines
- Decentralized execution, where different business units have the flexibility to develop and deploy AI solutions while adhering to enterprise-wide best practices
- Automated AI pipelines, enabling seamless model retraining, real-time updates and integration with enterprise applications

PILLAR 6

People

Pillar	Key questions	Proof points of success	Resource requirements	Engaged departments
People: The right mix of talent, skills and training to drive AI transformation	<ul style="list-style-type: none">Do teams have AI expertise?Do you have established training paths for various personas in your organization?What’s your team’s approach or culture in using AI in their daily work?	<ul style="list-style-type: none">AI skill-building initiativesCross-functional collaborationAI literacy at all levels	Medium — Requires structured learning programs	<ul style="list-style-type: none">HRLearning and DevelopmentAI centers of excellence

The People pillar focuses on building and developing the human capabilities necessary to drive AI transformation. As organizations progress in AI maturity, they move from having limited in-house expertise to establishing multidisciplinary teams with specialized AI skills. This progression involves investing in AI education, upskilling employees and fostering a culture of continuous learning to ensure AI is successfully adopted across the enterprise.



At early maturity stages, organizations may lack structured AI training programs, leading to reliance on external vendors or consultants for AI development. As maturity increases, companies begin establishing internal training paths, certification programs and cross-functional AI teams that help democratize AI skills beyond data science teams. A key part of this shift involves making AI accessible to business users, ensuring that nontechnical employees can leverage AI tools without deep programming expertise.

While 75% of the companies examined are adopting AI, only 35% of employees say they've received AI training in the last year. **Randstad**

Mature organizations develop career development frameworks and structured AI learning programs tailored to different roles, from engineers and data scientists to product managers and executives. This includes:

- Enterprise-wide AI literacy initiatives that help employees understand AI's impact on their roles
- Self-service AI platforms that allow employees without deep technical expertise to experiment with AI, creating "citizen data scientists" who can work with AI effectively
- AI centers of excellence (CoE) that provide centralized AI best practices, governance and training resources while allowing individual teams to innovate

More than 97% of enterprise architects predict that nontechnical staff will use natural language programs to interact with complex datasets within the next three years, and 58% say that natural language will be the primary — or only — way they do this. **Economist Impact**

The Databricks Data Intelligence Platform democratizes access to AI. With natural language interfaces, contextual search and assistance features built into notebooks, SQL editors and dashboards, nontechnical staff can use AI safely and effectively — accelerating workforce transformation and upskilling. The most advanced organizations prioritize AI talent pipelines to attract, train and retain top AI talent.

"The right talent wants to come work on the right tech stack and vice versa. So I think getting the right talent and the right tech stack in place are super, super critical parts of the foundation."

— Carol Clements, Chief Digital and Technology Officer, JetBlue

Strategies include:

- Offering competitive compensation and career paths for AI specialists
- Partnering with universities and research institutions to foster AI innovation
- Developing leadership programs that integrate AI strategy and ethics training

The AI skills gap is estimated to be 50%. The demand for upskilling existing personnel could be as high as 70% of all workers. [Thomson Reuters](#)

The benefits of AI maturity in this pillar include improved project outcomes, faster innovation cycles, stronger cross-functional collaboration and a workforce equipped to deploy AI solutions effectively. Organizations that excel in this pillar do more than train employees in AI — they embed AI fluency across the enterprise, ensuring technical capabilities are tightly connected to business strategy.

66%

of organizations say they're actively experimenting to find the balance between humans and AI, and 80% say these efforts could be stronger.

Economist Impact

"We've democratized AI so that everybody in the company, no matter if you're the CEO down to a frontline employee, has access to the same set of tools."

— Ryan Snyder, Senior Vice President and Chief Information Officer, Thermo Fisher Scientific

Upskilling and training lead to success

Training programs and partnerships can help upskill the workforce while sandboxes and live experiments also advance workforce engagement. The scale and urgency of AI upskilling are pushing organizations to develop comprehensive, multilayered approaches to building AI capabilities. Leading companies are implementing ambitious training programs that span the full spectrum of AI literacy needs. At Unilever, as Andy Hill describes, the company has trained 20,000 people through a curriculum that ranges from basic prompt engineering to PhD-level AI knowledge.

Successful organizations recognize that formal training alone isn't enough. Hands-on experience in safe environments is essential for true learning. HP's Scott Hallworth recognizes this value to the organization and was an early adopter of private sandboxes where employees can experiment with AI technologies directly. Shell takes a similar approach, with CIO Robbert Van Rutten advocating for "low threshold" use cases that allow employees to begin working with AI in practical ways. This combination of structured learning and practical experimentation is creating a new model for organizational AI adoption, where formal education provides the foundation and hands-on experience builds the confidence and competence needed for real-world application.

“You need to have patience when you’re making changes across large numbers of people. You have to ensure you’re helping them think through the positives of the change and how it can help them . . . When you’re making a change and communicating it, you want to tie it back to your core foundations of why you exist as a company and leverage that in your communications to make sure people haven’t lost sight of what you’re trying to accomplish. For example, at TD, we’ve got a strong enterprise approach to data, where all data is treated as an enterprise asset. With that in mind, enabling ourselves to serve our customers better is the purpose that keeps us going when we’re making major changes like building out a new platform or embarking on a large data migration to the cloud.”

— Jeff Martin, EVP Procurement, Data and Corporate Platform, TD Bank

Summary

Charting your path to AI maturity

No longer a future prospect, the AI revolution is now a business imperative. While many organizations are leveraging generative AI (GenAI), few have fully developed the capabilities required to generate sustainable value. This gap between AI experimentation and real business transformation often results from fragmented strategies, inaccuracies or poor-quality outputs, lack of governance or underdeveloped operational practices. Organizations that succeed in AI adoption and scaling share key characteristics in how they approach each pillar of the Databricks AI Maturity Model.

STRATEGY: FROM EXPERIMENTATION TO TRANSFORMATION

Leading organizations recognize that an AI strategy must be tightly integrated with business objectives. Instead of pursuing AI as an isolated initiative, they align AI investments with clear business goals and real-world use cases. Executive sponsorship plays a critical role, ensuring AI initiatives receive the funding, attention and cross-functional collaboration needed to drive meaningful impact. Mature organizations prioritize AI use cases that enhance productivity, improve decision-making and create new value streams, ensuring every initiative is measurable and outcome-driven.

GOVERNANCE: FROM FRAGMENTED TO UNIFIED AI GOVERNANCE

As AI adoption grows, so does the need for robust AI governance. Organizations lacking a clear AI governance strategy risk inconsistent model performance, security vulnerabilities and compliance challenges. AI maturity requires centralized governance across data, models and AI-generated content, ensuring compliance with privacy laws, security policies and ethical AI standards. This is especially important for agentic AI, which requires well-defined safeguards to prevent unauthorized access to secure data, misinformation and unintended actions.

BUSINESS USE CASES: FROM PILOTS TO PRODUCTION

Organizations that move beyond isolated AI experiments and establish structured frameworks for use case identification, validation and scaling experience greater AI-driven business impact. Rather than chasing AI trends, mature organizations differentiate between efficiency-driven AI projects and strategic AI investments that have the potential to reshape and transform industries. They also emphasize cross-functional collaboration, ensuring business teams work closely with data scientists to select high-impact AI initiatives that align with core objectives.

DESIGN AND ARCHITECTURE: FROM BASIC TO SOPHISTICATED

Technical maturity in AI evolves from simple proof-of-concept models to sophisticated AI agents and modular architectures. Organizations that successfully scale AI adopt an AI agent-based architecture, enabling multiple interacting models that are connected to your enterprise data and deliver more accurate, domain-specific results. The AI agents also require sophisticated quality evaluations that assess whether the outputs and actions are both factually correct and strategically aligned with the specific business context.

OPERATIONS: FROM AD HOC TO SYSTEMATIC

Operational excellence in AI requires moving from one-off AI projects to scalable, repeatable and well-governed MLOps/LLMOps frameworks. Organizations that establish centers of excellence enable structured AI deployment while allowing distributed teams to innovate independently. Mature enterprises standardize AI monitoring, optimization and version control, ensuring models remain reliable, explainable and continuously improving. These practices accelerate deployment cycles, improve model performance and drive AI efficiency across the enterprise.

PEOPLE: FROM TECHNICAL SPECIALISTS TO ENTERPRISE-WIDE CAPABILITY

AI success is about more than just technology — it's about people. Organizations that lead in AI maturity invest in workforce training, AI literacy programs and structured career development paths. The most advanced organizations create AI centers of excellence that provide ongoing education for both technical teams and business users, ensuring responsible and effective AI adoption across the organization.

At each stage of maturity, the Databricks Data Intelligence Platform provides the foundation for scalable, secure and explainable AI. From governance to user experience, the Databricks Platform ensures that data and AI are part of one intelligent system rather than separate silos.

The solution: the Databricks Data Intelligence Platform

The Databricks Data Intelligence Platform is a unified foundation for building, deploying and governing enterprise AI — enabling organizations to securely operationalize generative AI across their data. At its core is lakehouse architecture that combines structured and unstructured data, scalable compute and built-in governance to power AI at enterprise scale.

With the Databricks Platform, organizations can:

- Enable AI agents that reason over all of your enterprise data, including your databases, warehouses, data lakes and business applications, using your model of choice. That way, it can connect the dots between silos of information like the customer's purchase and transaction history, support data, return and exchanges, and more.
- Perform rigorous quality measurement and provide ways to improve quality. This ensures that responses and actions are accurate, protecting your company from damage and loss of customer or employee trust.
- Govern data, models and AI assets in one unified platform — from development to deployment

By adopting the Databricks Data Intelligence Platform, enterprises move beyond experimentation to production-scale AI, bridging the gap between innovation and measurable impact. Mosaic AI enhances this platform with the tooling to accelerate model development and bring GenAI agents to life — all with governance, privacy and scalability built in.



About Databricks

Databricks is the data and AI company. More than 10,000 organizations worldwide — including Block, Comcast, Condé Nast, Rivian, Shell and over 60% of the Fortune 500 — rely on the Databricks Data Intelligence Platform to take control of their data and put it to work with AI. Databricks is headquartered in San Francisco, with offices around the globe, and was founded by the original creators of Lakehouse, Apache Spark™, Delta Lake and MLflow. To learn more, follow Databricks on [LinkedIn](#), [X](#) and [Facebook](#).

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