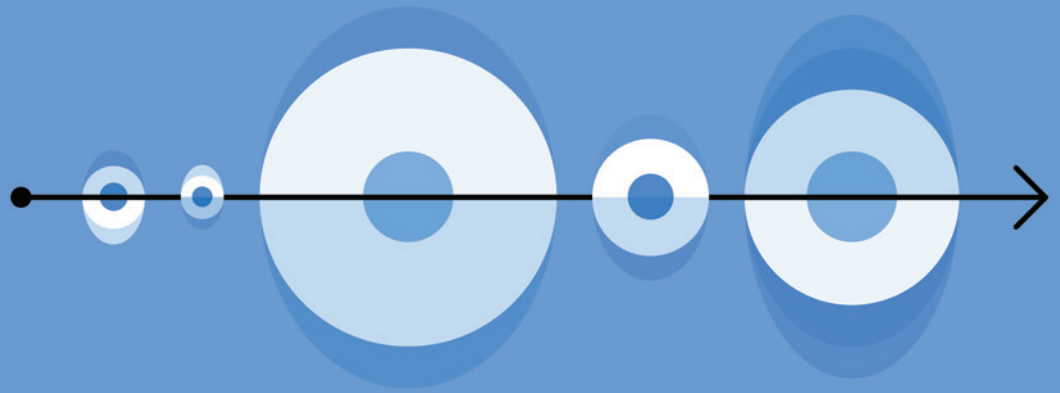




What Drives AI Value

Why Modernization and Workflow Integration Matter

HBR
Analytic
Services
**DATA
SUMMARY**

Sponsored by

appian

What Drives AI Value

Why Modernization and Workflow Integration Matter

Organizations have spent the past several years rapidly adopting artificial intelligence (AI), rolling out copilots, chatbots, and other tools across the enterprise. Today, these businesses are moving beyond AI experimentation, but not all are seeing the same results.

AN APRIL 2026 Harvard Business Review Analytic Services survey of 385 respondents from organizations exploring, piloting, or actively using AI—and all involved in their organization’s AI decisions—indicates that organizations are not simply adopting more AI tools. Instead, they are taking specific actions to operationalize AI, including modernizing legacy infrastructure, embedding AI into core processes, integrating data sources, and orchestrating processes across systems.

These foundational investments are shaping the next phase of AI maturity. Organizations are no longer asking whether they should use AI, but rather how to make it work in ways that meaningfully improve business outcomes. This shift, however, is proving more complex than expected. A majority agree that their organization is looking to realize more business value from its use of AI, underscoring

the challenge of moving from experimentation to execution.

Even so, organizations that take a more deliberate approach are beginning to realize measurable business value from AI. Those that prioritize modernizing infrastructure, integrating data, orchestrating workflows across systems, and embedding AI into core processes are reporting strong results from these AI implementations.

Still, most organizations remain in transition. For many, AI continues to operate alongside day-to-day work rather than within it, limiting the technology’s ability to drive meaningful business outcomes. But as organizations push toward more advanced use cases—including agentic AI systems that operate across workflows—the need to connect systems, modernize infrastructure, and embed AI into how work actually gets done is becoming increasingly

HIGHLIGHTS

 **92%**

of respondents agree that **artificial intelligence (AI) agents need rules-based guardrails to operate safely and effectively**, while fewer (48%) agree that their organization has defined such rules (among those at organizations currently using, considering, or exploring agentic AI).

 **71%**

say their organization has realized notable **value from embedding AI into core processes/workflows** (among those who say it is an action their organization has taken or is currently taking to advance its AI projects).

 **69%**

agree **legacy systems** are limiting their organization’s ability to scale AI across the enterprise.

Due to rounding, some figures in this report may not add up to 100%.

Ultimately, when AI operates outside the flow of work, it lacks the context and connectivity needed to drive meaningful business outcomes.

urgent. Organizations seem to acknowledge this need for change, as virtually all respondents say their organization needs to make changes to processes in order to improve the success of AI.

These findings point to a clear inflection point. The organizations that move beyond standalone AI use cases and successfully embed AI into the core of how work gets done are likely to unlock its true value, while others risk falling short of their ambitions.

Key Findings

Organizations are taking action across multiple AI fronts. To move AI forward, organizations are investing in a range of initiatives. Respondents were shown a list of key actions an organization may be taking to advance its AI projects, and the most popular actions organizations have taken or are currently taking include providing workforce training on AI tools (66%), strengthening AI governance and oversight (63%), and embedding AI into core processes/workflows (62%).

Modernizing infrastructure, integrating data, and orchestrating systems are investments that lead to AI value. Respondents were then asked whether their organization has realized value from taking each of the actions they previously selected, and in every case, roughly 7 in 10 respondents report realizing substantial or moderate value. The strongest overall returns are tied to modernizing legacy infrastructure/systems (76% substantial or moderate value), integrating data sources (75%), and orchestrating processes across systems (73%). These results point to broad-based value across all major AI initiatives. Interestingly, modernizing legacy infrastructure is one of the less common actions (45% say their organization has done it or is currently doing it), yet it has the highest percentage saying it delivers notable AI value. Applying AI to high-impact work/decisions (72%), embedding AI into core processes/workflows (71%), and strengthening AI governance (68%) are also delivering strong

returns, alongside foundational efforts like modernization and integration. These findings may suggest that while infrastructure and data investments are key to enabling AI at scale, embedding AI directly into workflows and applying AI to high-value work both play a critical role in translating AI investments into meaningful business outcomes. **FIGURE 1**

Right now, AI is still more adjacent to than embedded in everyday work. Despite ongoing investments, most of those surveyed say their organization has not yet fully integrated AI into their day-to-day operations. Only 18% of respondents report that for most of their organization's processes/workflows that use AI, the technology is integrated within the process/workflow, in comparison to the 34% using it mainly as a standalone tool alongside the respective process/workflow. In the middle, another 34% report an equal mix of the two approaches—most appear to be in a transitional stage of operationalization. Ultimately, when AI operates outside the flow of work, it lacks the context and connectivity needed to drive meaningful business outcomes. **FIGURE 2**

AI adoption is still maturing. Many organizations have moved beyond early experimentation, but they are not all moving at the same pace. Overall, among this base of respondents, all of whom are from organizations moving forward with AI to some extent, more than half (59%) say their organization already has live AI use cases in production, including 27% with many live use cases, while 41% remain in earlier stages—either exploring or piloting AI.

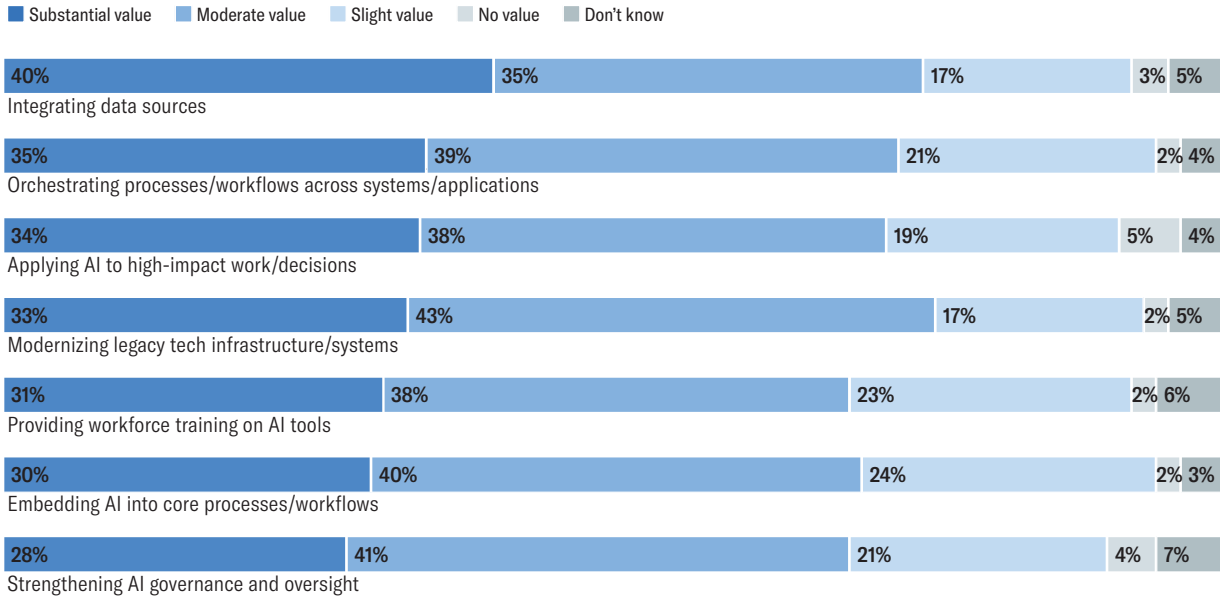
The survey also finds that adoption varies significantly by type of AI. Generative AI is now firmly mainstream, with 75% saying their organization is currently using it, followed by traditional AI, which includes predictive analytics, recommendation engines, and fraud detection systems, at 65%. In contrast, agentic AI is still emerging: Only 25% report current use, while a majority (62%) are considering/exploring it. These findings suggest that while organizations have embraced AI tools that assist with discrete tasks, more advanced systems that operate across workflows are still on the horizon.

FIGURE 1

Key Artificial Intelligence Investments Are Paying Off

Some of the strongest returns are tied to data integration and orchestration

How much value has your organization realized from taking each of these actions to advance its AI projects, if any?



Base: 146 to 254 respondents (varies by row), among those who earlier selected each as an action their organization has taken or is currently taking to advance its AI projects.

Source: Harvard Business Review Analytic Services survey, April 2026

Most are seeing some returns on AI, but not yet at scale. Most of the surveyed organizations are seeing returns from their AI investments, but not yet at the level they want. Just 16% of respondents report that their organization has realized a high degree of measurable value, while the majority describe the impact as moderate (33%) or slight (36%). At the same time, expectations remain high. A full 86% agree that their organization is looking to realize more business value from its use of AI, and 71% agree it is taking longer than expected to embed AI effectively into their organization's processes/workflows. Old setups are thwarting AI progress for many organizations; 69% agree that legacy systems are limiting their organization's ability to scale AI across the enterprise. Taken together, these findings highlight a key tension: AI is delivering results, but translating those results into meaningful, scalable impact is proving more difficult.

Data, integration, and people challenges continue to slow progress. Organizations face a significant set of barriers when attempting to embed AI into workflows. When asked what are the biggest challenges to embedding AI into their

organization's business processes/workflows, the top three problems respondents cite are data issues, such as siloed or low-quality data (leading the list at 34%), a lack of integration across systems (31%), and a lack of AI talent/skills (30%). At the same time, many organizations are grappling with broader structural challenges, including governance or compliance concerns (28%) and lack of a clear plan/roadmap (27%). These findings reinforce a central theme: Scaling AI is not just a technical challenge but an organizational one that requires alignment across data, systems, and people. To address these challenges, organizations will need to make sure they have the expertise and resources needed to spearhead improvements across these core areas: strengthening data foundations, better integrating systems, and investing in the talent and governance capabilities needed to operationalize AI effectively.

AI's current impact is strongest in bolstering productivity, not enabling growth. When it comes to measuring the success of AI initiatives, organizations are primarily focused on operational gains. The most common

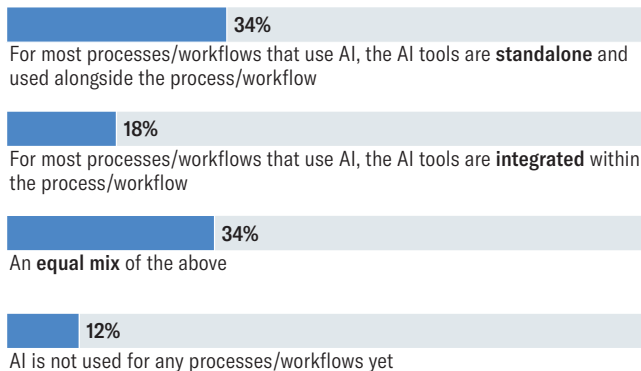
Without clear guardrails, agents can act unpredictably across systems, increasing the risk of errors, compliance issues, or unintended outcomes.

FIGURE 2

AI Is Still Mostly Used Outside Workflows

A small share say their organization has largely integrated AI into workflows

Which of the following best describes how your organization uses AI as part of its existing processes/workflows?



Base: 385 respondents. Not shown: 2% Don't Know

Source: Harvard Business Review Analytic Services survey, April 2026

measurements of AI success organizations monitor are operational efficiency (57%) and productivity improvements (56%), followed by cost savings (43%). Fewer organizations track higher-level outcomes such as new revenue streams (18%) or performance against competitors (14%). Respondents were then asked, of the AI performance measures their organization tracks, which have improved for their organization as a result of its AI use: Productivity improvements (64%) and operational efficiency (58%) top the list, while financial metrics like new revenue streams (30%), ROI (35%), and cost savings (38%) are among the least likely to have improved. For now, AI is delivering its clearest value in optimizing how work gets done but not yet in reshaping broader business outcomes and growth.

Improving AI outcomes requires rethinking processes and how work gets done. Faced with a number of challenges, organizations are increasingly turning their attention to reshaping the processes themselves. Half of respondents say that, in order to improve the success of their organization's AI implementation, a process/workflow change their organization needs to make is to better define the business rules/guardrails that AI must follow (50%), which is an essential step, particularly in the context of agentic AI. Without clear guardrails, agents can act unpredictably across systems, increasing the risk of errors, compliance issues, or unintended outcomes. Close behind, many say their organization needs to standardize processes/workflows across functions (49%) and increase cross-functional coordination (47%). Other priorities—redesigning/simplifying processes before introducing AI (46%), clarifying ownership and accountability (46%), and documenting processes/workflows more consistently (45%)—underscore a broader realization: AI cannot simply be layered onto existing ways of working. Those processes need to be redesigned. **FIGURE 3**

Governance is improving but gaps remain. While 92% of respondents agree that AI agents need rules-based guardrails to operate safely and effectively, notably fewer (48%) agree their organization has defined such rules for agents (among those at organizations using, considering,

or exploring agentic). Many organizations are currently taking steps to put AI guardrails in place. When it comes to the governance mechanisms organizations have already put in place or are currently working to put in place for overall AI-driven decisions or actions (not specific to agentic AI), more than half (54%) of all respondents select human review of AI outputs, while equal shares cite defining rules-based guardrails for AI to follow (39%) and formal AI oversight committees (39%). However, more advanced mechanisms—such as audit trails for AI outputs (27%), documented accountability structures (26%), and escalation paths for AI-generated decisions (17%)—are less widely adopted. Twelve percent report having no governance mechanisms at all.

Agentic AI is aimed at productivity first, not transformation. Looking ahead, organizations see significant potential in agentic AI. The long-term business goals they most seek to achieve from using agentic AI are practical and efficiency-driven: Around half of respondents (51%) say their organization is most looking to lower costs to operate the business, while a similar share (49%) say they seek automated/streamlined operations (among the respondents from organizations currently using, considering, or exploring agentic AI). Beyond these benefits, 31% are looking for AI agents to create exceptional customer experience and 28% want sharper, better-informed business decisions. New revenue opportunities (16%), a more transformative goal, appears further down the list.

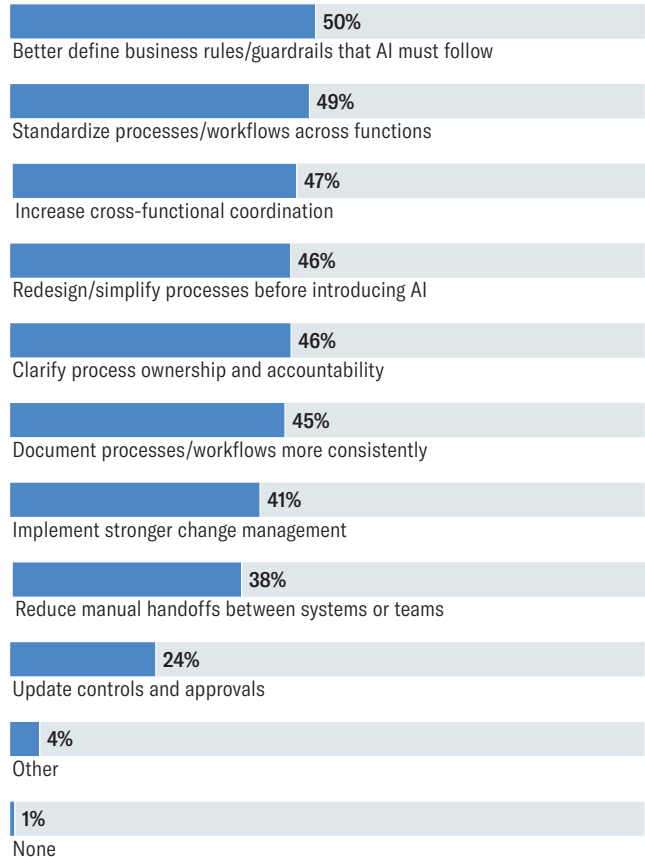
AI agents are gaining traction in technical and front-office functions, with slower rollout elsewhere. Technical areas like software development (35%) and IT operations (31%) lead the way in deploying AI agents, with front-office functions such as marketing/sales (26%) and customer service (25%) following behind. The areas with the lowest rates of agent deployment are back-office functions including procurement (9%), manufacturing (10%), and supply chain (11%). Integrating agents smoothly into such essential organizational systems is critical, but many report having trouble with agent implementation.

FIGURE 3

Organizations Are Rethinking Workflows

AI success depends as much on how work is structured as on the technology

What process/workflow changes does your organization need to make, if any, to improve the success of its AI implementation? Select all that apply.



Base: 385 respondents. Not shown: 1% Don't Know.

Source: Harvard Business Review Analytic Services survey, April 2026

FIGURE 4

Agentic AI Hits Integration and Reliability Roadblocks

Several issues are slowing organizations as they move to real-world deployments

What problems is your organization experiencing, if any, in its use of AI agents? *Select all that apply.*



Base: 337 respondents from organizations currently using, considering, or exploring agentic AI. Not shown: 9% Don't Know.

Source: Harvard Business Review Analytic Services survey, April 2026

Inevitably, agents introduce new challenges. As organizations experiment with agentic AI, they are also encountering a new set of challenges. Among the respondents from organizations currently using, considering, or exploring agentic AI, difficulty integrating agents into systems (36%) is the most common issue they say their organization is experiencing in its use of agents, followed closely by factual errors/hallucinations (34%) and agents' lack of access to the right data (34%). Inconsistent/unreliable agent outputs (31%) and a lack of governance over agents (31%) further highlight the risks of deploying more-autonomous systems without sufficient oversight, reinforcing the importance of the foundational work many organizations are still working to complete. FIGURE 4

Conclusion

These findings underscore a pivotal moment in how organizations approach AI. While adoption has accelerated and early benefits are emerging, most organizations have yet to translate that momentum into sustained, enterprise-wide impact.

The next phase of AI maturity will depend on moving beyond standalone use cases and embedding AI directly into the core of how work gets done. This endeavor will call for strengthening data foundations, connecting systems, rethinking workflows, and establishing governance structures that enable AI to operate with both context and control.

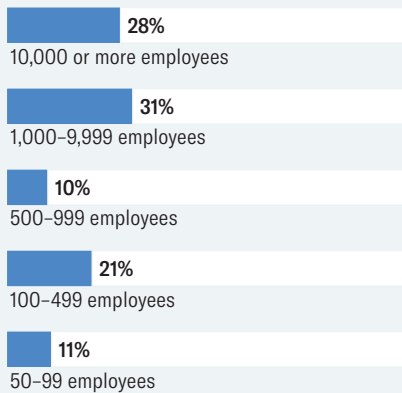
Organizations that can close this gap will be better positioned to adopt agentic AI and move beyond incremental improvements to realize more meaningful, long-term value, while those that don't may continue to struggle to turn early progress into lasting results.



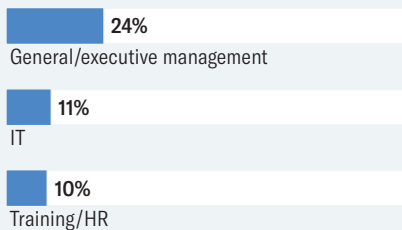
METHODOLOGY AND PARTICIPANT PROFILE

Harvard Business Review Analytic Services surveyed 385 members of the *Harvard Business Review* audience via an online survey fielded from March to April 2026. Respondents qualified to complete the survey if they were from organizations exploring, piloting, or actively using artificial intelligence (AI) and they were involved in their organization's decisions about AI.

ORGANIZATION SIZE

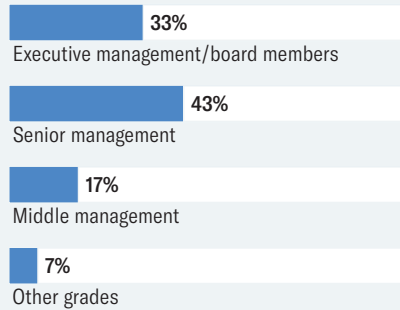


JOB FUNCTIONS

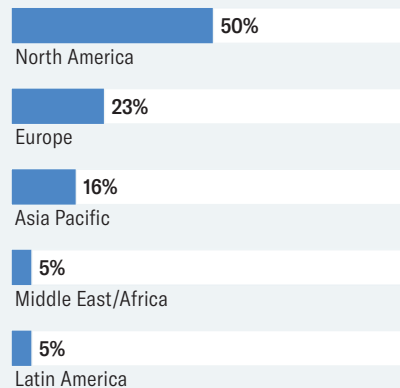


All other functions less than 8% each.

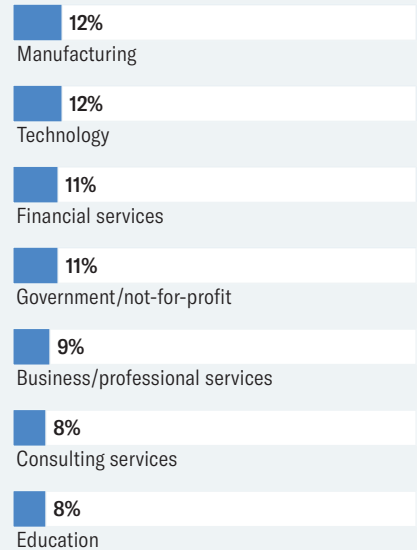
SENIORITY



REGIONS



INDUSTRIES



All other sectors less than 8% each.



VISIT US ONLINE

hbr.org/hbr-analytic-services

Harvard Business Review Analytic Services is an independent commercial research unit within Harvard Business Review Group, conducting research and comparative analysis on important management challenges and emerging business opportunities. Seeking to provide business intelligence and peer-group insight, each report is published based on the findings of original quantitative and/or qualitative research and analysis. Quantitative surveys are conducted with the HBR Advisory Council, HBR's global research panel, and qualitative research is conducted with senior business executives and subject-matter experts from within and beyond the *Harvard Business Review* author community. Email us at hbranalyticservices@hbr.org.