



Seizing the AI and automation opportunity

The moment is now

How IBM can help

IBM has the proven tools, insights, and expertise to help you identify and execute high-impact automation- and AI-powered solutions across your business—to make IT systems more proactive, business processes more efficient, and people more productive. For more information, please visit ibm.com/automation



We are at an opportune moment to investigate the potential that generative AI and automation create for organizations.

Key takeaways

- Leaders in generative AI adoption and data-led innovation report they're reaping the rewards
They reveal earning 72% greater annual net profits and growing annual revenues 17% more than their competitors.
- High expectations
Executives anticipate roughly doubling their revenue growth from AI-enabled automation in their operations in the next three years.
- Supercharged AI, supercharged automation
Almost nine in ten leaders in generative AI adoption (87%) say the technology helps them execute more high-impact automation initiatives.
- An overwhelming consensus: benefits outweigh risks
Eight out of ten respondents (82%) overall agree that benefits from generative AI are worth potential risks.

Introduction

Generative AI is everywhere. It has democratized data and accelerated the model-to-monetization cycle. Three out of four CEOs say their competitive advantage rests on it.¹

Companies at the forefront of generative AI adoption and data-led innovation—a group we call Generative AI Leaders (see Perspective, “Generative AI Leaders”)—are already reaping outsized rewards, reporting 72% greater annual net profits and 17% more annual revenue growth than peers. Momentum is spreading, with 92% of C-suite executives expecting to digitize their organization’s workflows and leverage AI-powered automation by 2026.²

The challenge: while some organizations speed up, others can’t keep up. The widening gap between early adopters and hesitant businesses is creating a great divide—one in which organizations that struggle to embrace AI-driven solutions could lose ground in an increasingly technology-driven marketplace.

In response to these dramatic developments, the IBM Institute for Business Value (IBM IBV) has undertaken its most complex, far-reaching study on AI and automation. We surveyed more than 2,000 C-suite executives around the world, including Chief Automation Officers, about key strategies and investments as they advance intelligent workflows with AI and automation to improve connectivity and scale to value (for more information, see “Research and methodology” on page 27). We also highlight our Generative AI Leaders mentioned above. The discrete group is making critical investments in this advanced technology, enhancing AI and automation across their organizations.

Eight out of ten (82%) respondents overall agree that benefits from generative AI are worth potential risks. As all facets of society navigate this new terrain, it’s an opportune moment to investigate the impacts and potential that generative AI and automation create for organizations.

In the chapters that follow, we dig into four critical areas: data and preparedness; workforce talent and digital assistants; the IT opportunity; and investment priorities. Along the way, we share case studies of real-world impact. Finally, we present an action guide, with an 11-point blueprint for optimizing intelligent automation.

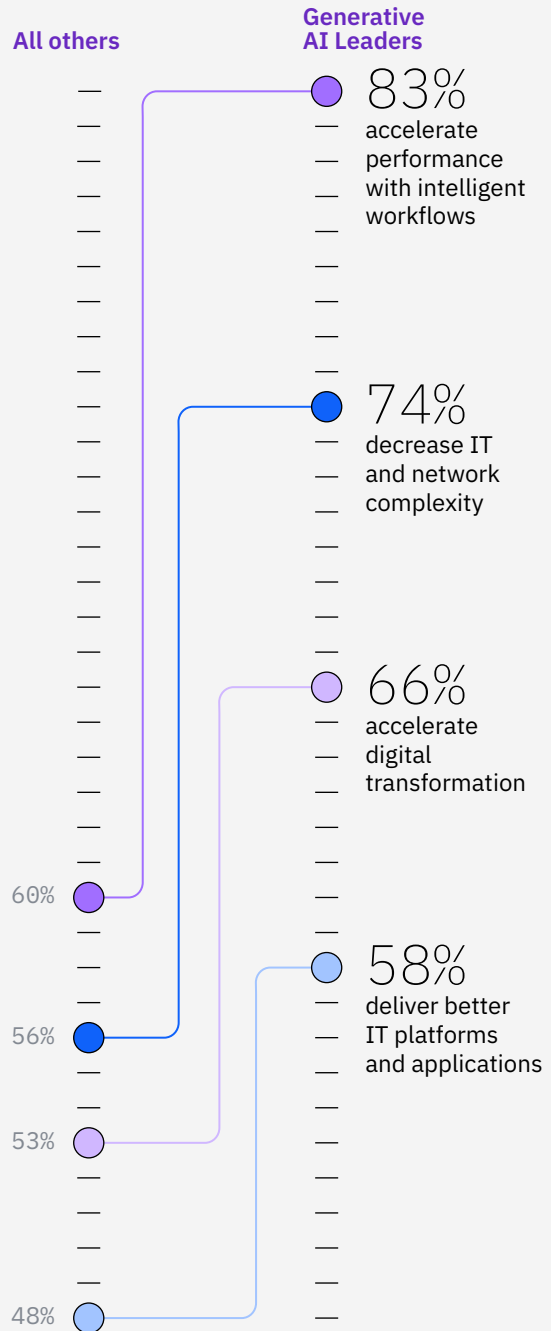
Perspective

Generative AI Leaders—What sets them apart

Is *everyone* getting on board the generative AI revolution? It might seem that way, but not all initiatives—or enterprises—are performing equally. One-fifth of our respondents (19%) revealed themselves to be what we call Generative AI Leaders. They cite the technology as critically important to them and view generative AI capabilities as the primary driver of their automation investments. This select group is pulling away from the pack in terms of generative AI strategy and adoption, and in business and technology performance.

Gen AI leaders aggressively invest in automation—also citing it as very or critically important—to fast-track their digital transformation agenda. They plan to accelerate performance with intelligent workflows—and are investing and scaling IT platforms and applications while decreasing IT complexity with automation. Their proactive, aggressive stance is palpable—for example, they regard automation as an accelerator to digital transformation 25% more often than their non-Leader peers (see figure).

Goals for automation investments



Q. On a scale of 1-5, of what importance is each of the above reasons for your organization's investments in automation? %=respondents who answered 4 or 5.

Chapter 1

C-suite urgency: Data that drives productivity

Extreme digitalization has erupted, spawning innumerable data sources and micro-insights. Add generative AI into the equation and the impact across the enterprise and vast ecosystems is compounded. An entirely new level of sophisticated data is fueling a new level of AI, accelerating the intelligence of automated workflows.

These super-automated, super-intelligent workflows can help organizations increase productivity and meet customer demands—keeping their competition scrambling. Executives look to automation for wider business impact, of course, but they're also advancing and extending their internal digital transformation agenda with real-time insights, decisions, actions, and resiliency.

The proof is in the performance: Gen AI Leaders, with their heavier investments in automation to accelerate performance with AI-powered intelligent workflows, report outperforming their competitors in workforce agility (by 36% more), profitability and efficiency (24% more), innovation (53% more), and revenue growth (17% more). (See Figure 1.)

The foundational element to all of this is data, but data is not inherently valuable by its mere existence. Its usefulness depends on the transparency, trust, and security of its origins. Applying strong governance to both data management and the use of AI is essential to maintaining this usefulness.

“We need to get to a golden process—traditional AI and machine learning interacting with generative AI, enhancing forecasting, and providing proactive alerts.”

Client executive, semiconductor industry

For example, in our increasingly sustainability-conscious world, customers expect full transparency from the first to the last mile of the supply chain. When coupled with good governance of the data and AI pipeline, intelligent workflows make this visibility possible.

But visible data does not always equate to consumable data. A corresponding need for data visualization is emerging—in effect, translating and conveying data in easily understandable formats. Combined with AI and analytics, data visualization can help simulate decision impact, anticipate operational challenges, model preemptive new strategies, and—of utmost importance in unprecedented times—evaluate options when there’s no available historical data. Visualization and simulation are on the C-suite radar, with more than half (52%) of executives expecting these models to enable greater transparency and visibility for predictive operations.

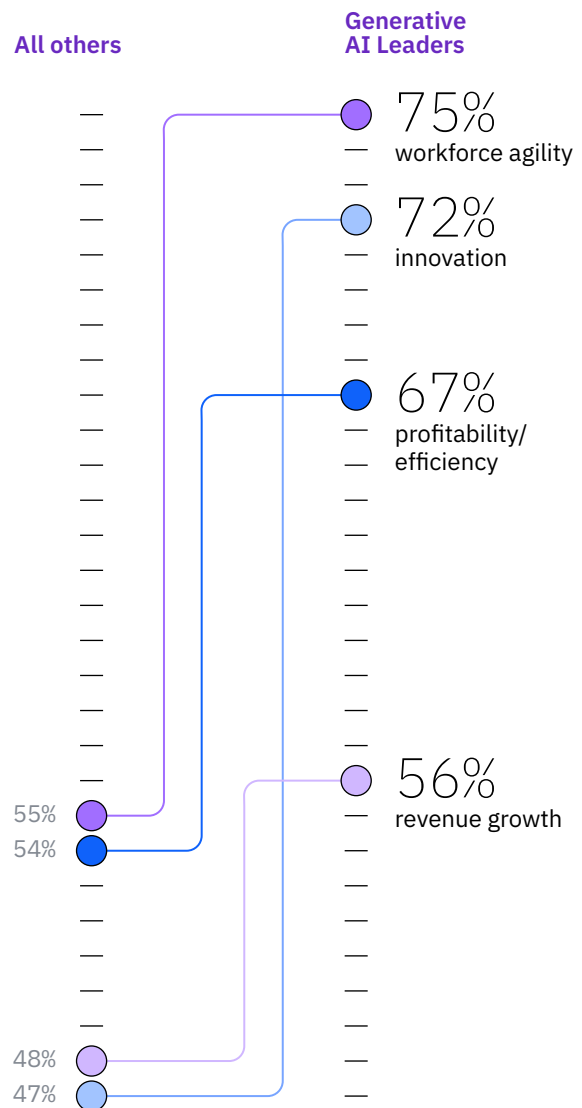
Data, AI, and automation are dependent on one another. Basically, there is no AI without data. And AI is foundational to automation. That’s why 66% of respondents say their digital transformation initiatives will not succeed *without an integrated data and AI strategy*.

Often, that holistic thinking needs to extend beyond the enterprise itself. For enhanced transparency and visibility, executives are increasingly integrating intelligent workflows with their ecosystem partners. In fact, 53% of executives expect new technologies to enable greater transparency and visibility with those ecosystem and network digital connections. And by 2026, more than twice as many executives expect that workflows extended to ecosystem partners will be digitized with intelligent automation.

FIGURE 1

Generative AI Leaders

Artificial intelligence, real results



Q. On a scale of 1-5, how does your organization’s performance compare with that of your competitors/peers over the last 3 years? %=respondents who answered 4 or 5.

Case study

BlueIT: Accelerating digital transformation and sustainability³

IT outsourcing provider BlueIT is on a mission to help its clients implement an IT strategy that helps ensure performance, optimizes IT spend, and reduces carbon emissions. Key to achieving these objectives is its ability to offer clients a comprehensive view of their entire IT environment and help them proactively reallocate resources to reduce waste and improve application performance.

A major priority for BlueIT right now is its shift from traditional ITOps to AIOps. Before, the BlueIT team relied on disparate monitoring tools and manual intervention to optimize their clients' environments. Now, they have a full-stack view and AI-powered automation. This helps the BlueIT team to identify resource congestion before the end-user experience is impacted, while also reducing waste.

Results

- Executes application resource decisioning 60% faster
- Reduces mean time to restore (MTTR) by 50%
- Reduces waste across client environments
- Frees up more time to help clients meet their goals

“The place I see the power of the AI approach is in these tools that can proactively show us where potential problems are and recommend actions to improve the sizing of resources and assure performance.”

Francesco Sartini
Chief Innovation Officer, BlueIT

Chapter 2

An evolving chemistry: AI assistants and employee collaboration

While AI and automation can make workflows more intelligent, to truly improve business performance requires a further step: augmenting the intelligence of employees. This is an especially critical point—it means reimagining the human-technology relationship through automation.

Generative AI has warranted the most buzz recently; it's the latest in rolling tides of technological advances. Eight out of ten C-suite executives agree: generative AI will fundamentally transform their workflows and how people can do their jobs productively.

“The chatbot becomes the people’s co-pilot—steering you to the report or information you are seeking—much faster.”

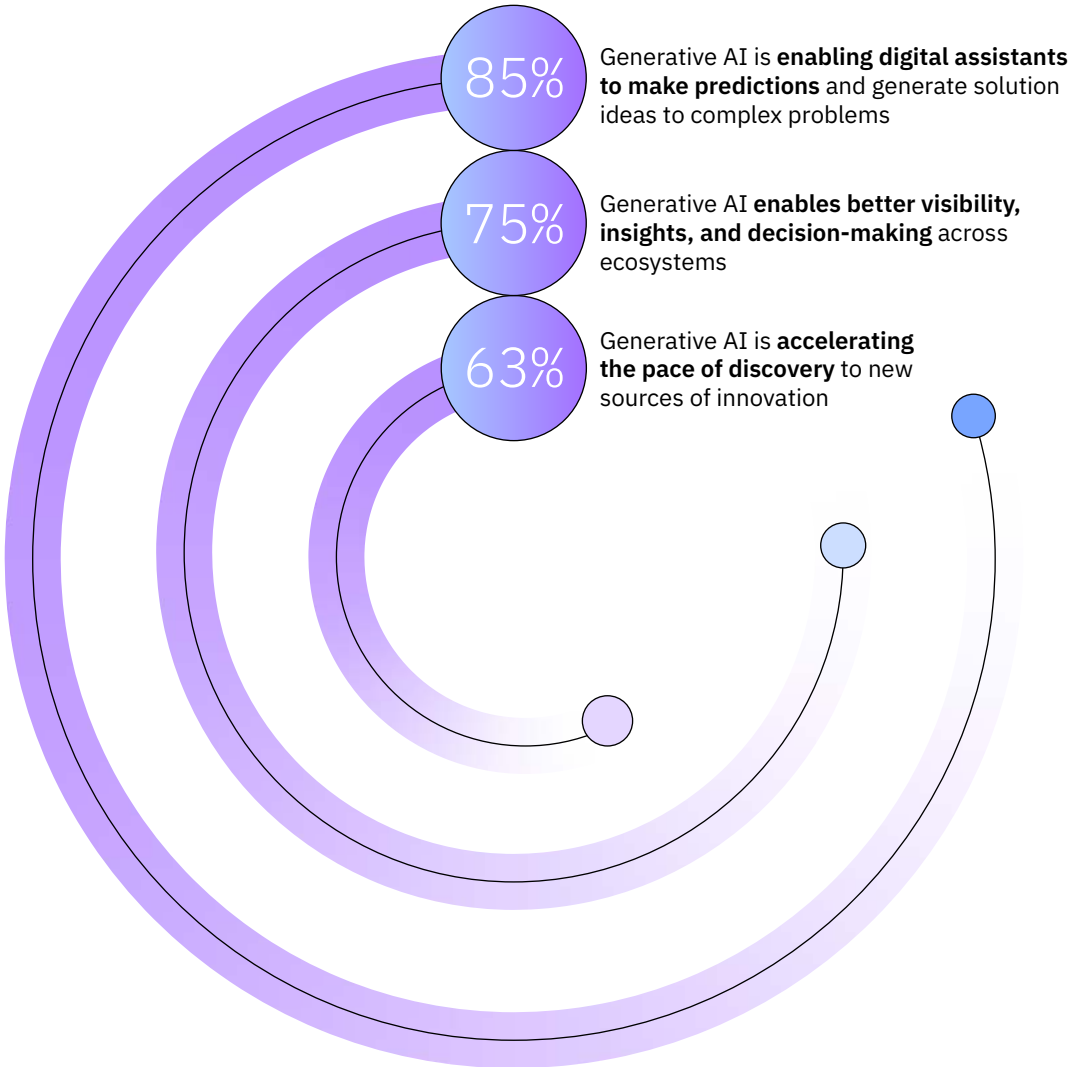
Client executive, consumer products industry

Gen AI Leaders report exceptional results in this realm. 86% agree that investing in generative AI is a key ingredient to their automation initiatives. And eight in ten say generative AI is enabling digital assistants to support making predictions and generating solution ideas to complex problems (see Figure 2).

FIGURE 2

Generative AI

The key to transformative workflows⁴



*Q. Thinking about your organization's generative AI strategy, to what extent do you agree with the above statements?
%=respondents who answered agree and strongly agree.*

Empowering employees, removing repetitive work

Automation can enhance productivity and reduce repetitive, tedious work. That frees up more time to focus on activities that add more strategic value to build customer and business partner relationships (see case study, “SELTA SQUARE”). Bonus: these value-add activities are often more interesting for employees as well as skills-enhancing.

Almost half of executives (47%) say that skills shortages could have the greatest impact on organizations over the next three years. Automation and AI can not only improve employees’ jobs and increase productivity, they can help bridge labor shortages and augment skills.

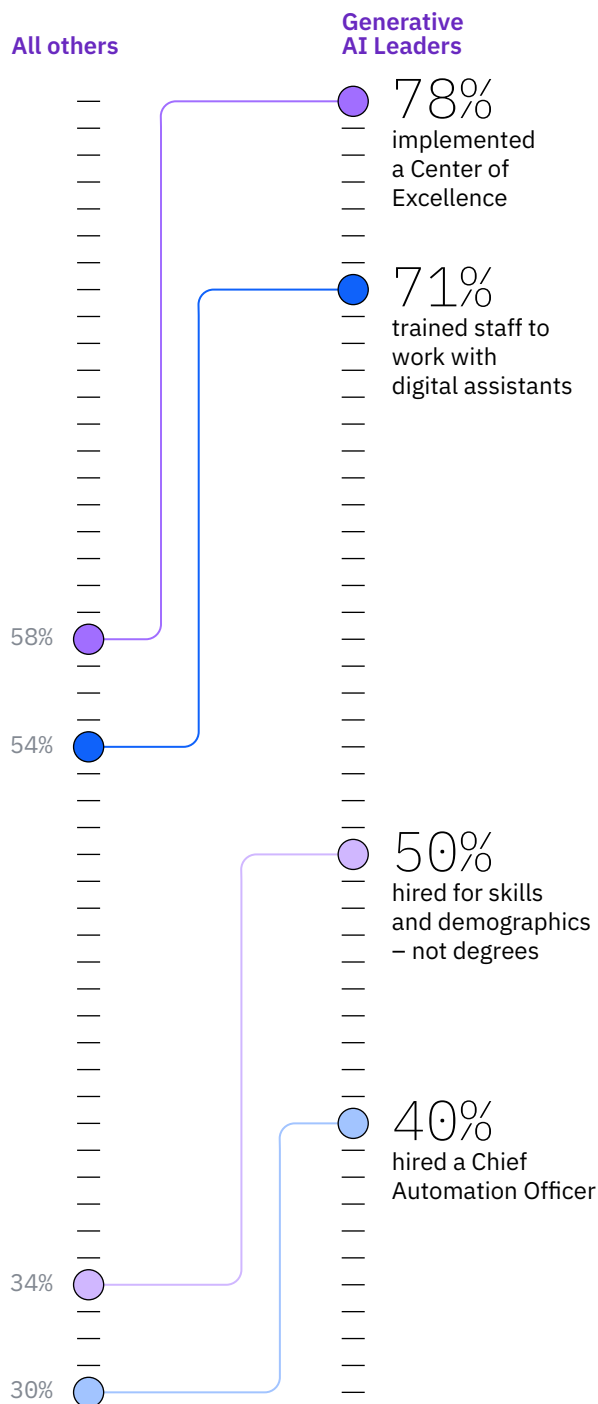
However, those positive aspects to automation don’t necessarily make for a smooth evolution. 80% of executives agree that workforce augmentation can be constrained by inadequate change management. Extending a warm welcome to digitally automated support requires a distinct shift in perspective, and this requires guidance and encouragement from executive leadership.

Our research shows Gen AI Leaders demonstrating a particularly proactive stance. Much more frequently than other organizations, they’re easing the transition with key initiatives, such as implementing a Center of Excellence around intelligent automation, using multidisciplinary teams to blend technology and business expertise, hiring a Chief Automation Officer or its equivalent, and educating staff on working with digital assistants (see Figure 3). These steps can help reskill the workforce to understand AI and automation and how to use them productively and properly.

FIGURE 3

Excellent at empowering

Generative AI Leaders lead in workforce inspiration



Q. On a scale of 1-5, what talent initiatives has your organization pursued to support your automation strategy? %=respondents who ranked the initiative a 4 or 5.

Case study

SELTA SQUARE: A first-of-its-kind, automated process for drug safety monitoring⁵

Leading South Korean R&D company Daewoong Pharmaceutical helped launch a new company—SELTA SQUARE—that’s innovating a critical process that could improve drug safety for people around the world. It’s a process called pharmacovigilance (PV), a legally mandated discipline for detecting and reporting adverse effects from drugs, then assessing, understanding, and preventing those effects.

SELTA SQUARE is using intelligent automation software to run an automated PV service that could be a game changer for the way pharma companies help ensure consumer safety. The intelligent automation software provides a vast improvement over a critical but tedious process that involved extensive searches of databases, medical literature, and case reports as well as the names of each product’s active pharmaceutical ingredients. Along with the searches, PV personnel needed to take and save screenshots, download source documents, document search results, and upload the data to a Daewoong Pharmaceutical server. The results are impressive:

Results

- Quadrupled the speed of the PV process
- Reduced literature search times from five minutes to one minute
- Gave specialists more time to enhance PV’s quality
- Helping to provide safer medicines

“Human experts still decide how to act upon the information, now they just get to the key information much faster.”

Min Kyung Shin
CEO
SELTA SQUARE

Decision-making and digital assistants

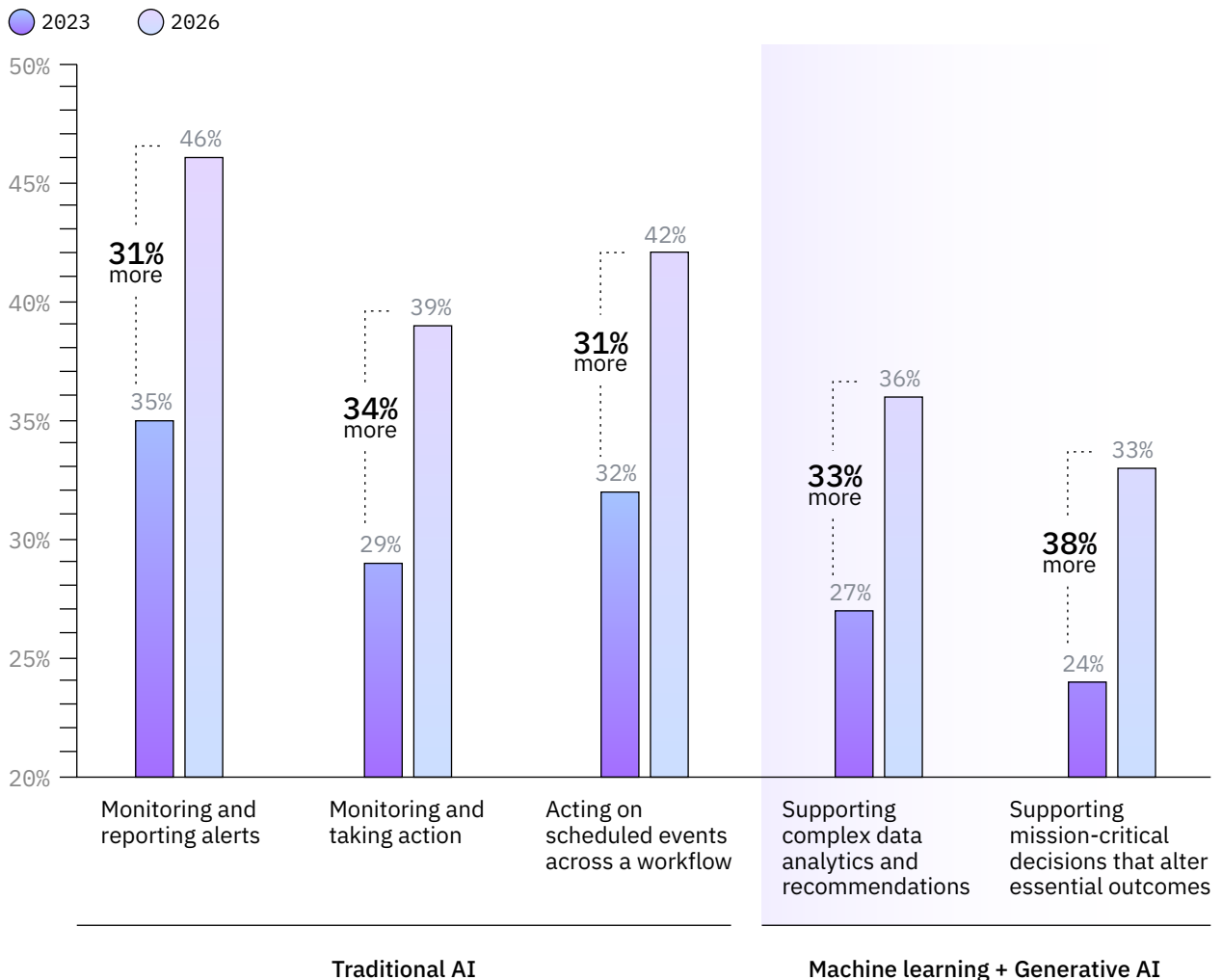
In general, workflow automation defines how work gets done through a sequence of tasks performed by *both* the workforce and the digital systems that they collaborate with. By generating insights that are available as needed and that are based within a wide context, AI-powered workflows steer teams toward higher value customer and partner collaborations, complex problem-solving situations, and forward-thinking innovative activities.

Increasingly, the digital side of the equation is acquiring more complex analysis and decision-making skills via both traditional and generative AI. More than three out of four (77%) C-suite executives report that digital assistants enable better insights and decision-making. Over the next three years, they expect digital assistants to support the workforce in making exceedingly complex and mission-critical decisions in making exceedingly complex and mission-critical decisions (see Figure 4).

FIGURE 4

Mission critical

Automated tools are expected to increasingly support complex decisions



Q. For the above activities, what percentage are performed by automation tools, today and in 3 years (2023 and 2026)?

Executives understand the potential of intelligent automation. Six in ten are investing in automation to boost workforce productivity and agility.

Almost half have introduced new automation technologies to make operations more predictable, flexible, and intelligent—especially when automating proactive customer and employee experiences. 54% are evaluating the roles of automation and AI in delivering new ways of working, with 52% citing better customer experiences as their top priority.

These organizations are reconsidering essential ways of working, with automation part of a broader redesign to enhance productivity. It's a tectonic shift, with the importance of physical work location increasingly low, and opportunities to access skills and capabilities from virtually anywhere in the world escalating accordingly.

Ecosystems play heavily here as well. These new logistics require robust, defined workflows that interact with digital tools and human teams huddled—often virtually—with ecosystem partners. And ecosystems add another consideration for all-important data because, *both within the enterprise and within ecosystems*, that data must be consumable, flexible, and secure.

“We need to measure behavior to predict behavior.”

Client executive, manufacturing industry

Amplifying advantages: The automation of IT itself

We've talked about the potential of automating intelligent workflows, and we've discussed the potent power that AI-driven automation can give employees to redesign their jobs. But we're not through yet.

The automation of IT itself is an often-underestimated aspect of automation strategy and associated initiatives. Here, we explore the potential financial upsides of IT automation, how automation can alleviate IT risks, and why automation can make IT operations more proactive and productive overall.

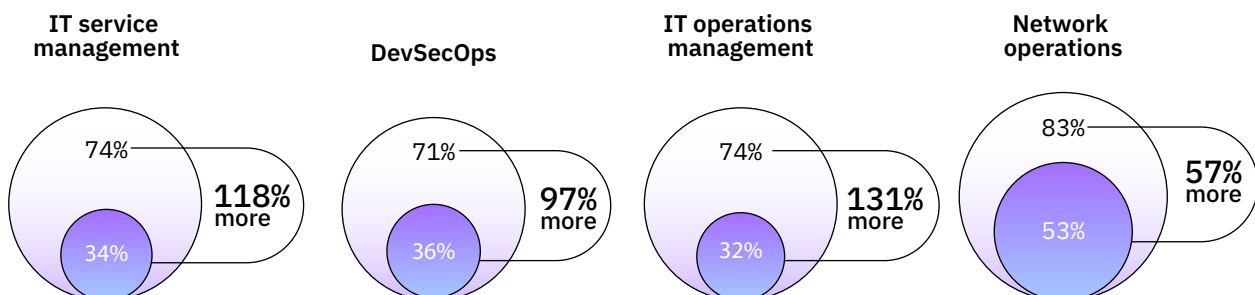
To shift from reactive to proactive IT management, organizations must leverage AI and machine learning algorithms to automate IT and network operations (see case study, "Electrolux"). Our research reveals the potential here. While almost two-thirds of organizations (63%) automate application integration, only about half (47%) automate event streams, enterprise messaging, and API management.

However, our research shows other IT automation initiatives accelerating—fast. Automation rates in IT service management, DevSecOps, and IT operations management are expected to *double* or more over the next three years (see Figure 5)—and this is across all respondents, indicating a deep, across-the-board trend.

FIGURE 5

Automation soars across the board

● Today ○ Next 3 years



Q. On a scale of 1-5, to what extent is your organization automating the above end-to-end IT workflows over the next 3 years? %=respondents who answered 4 or 5.

Case study

Electrolux: A legendary innovator aims for comprehensive AI management of IT operations⁶

From an Electrolux facility in northeastern Italy, a small team monitors the operational efficiency of their vast and complex global IT infrastructure that spans 10,000 servers, networking devices, and more across 65 countries. As Electrolux continues to find new ways to automate and innovate everyday living, they're also adopting AI-driven automation to quickly resolve IT issues worldwide to support cost efficiency and manufacturing volumes, and even contribute to ambitious environmental sustainability goals.

Results

- IT issues resolved in one hour instead of three weeks
- Less production downtime
- More time to enrich staff expertise
- Supporting a 75% reduction in CO2 emissions from operations
- Improved product availability for Electrolux customers

“Sizing the difference amongst events and incidents is the first step to a complete AI management of operations, and probably the one that can bring the fastest return on investment in self-learning technologies.”

Joska Lot
Global Solution Service Architect:
Monitoring and Events Management
Electrolux AB

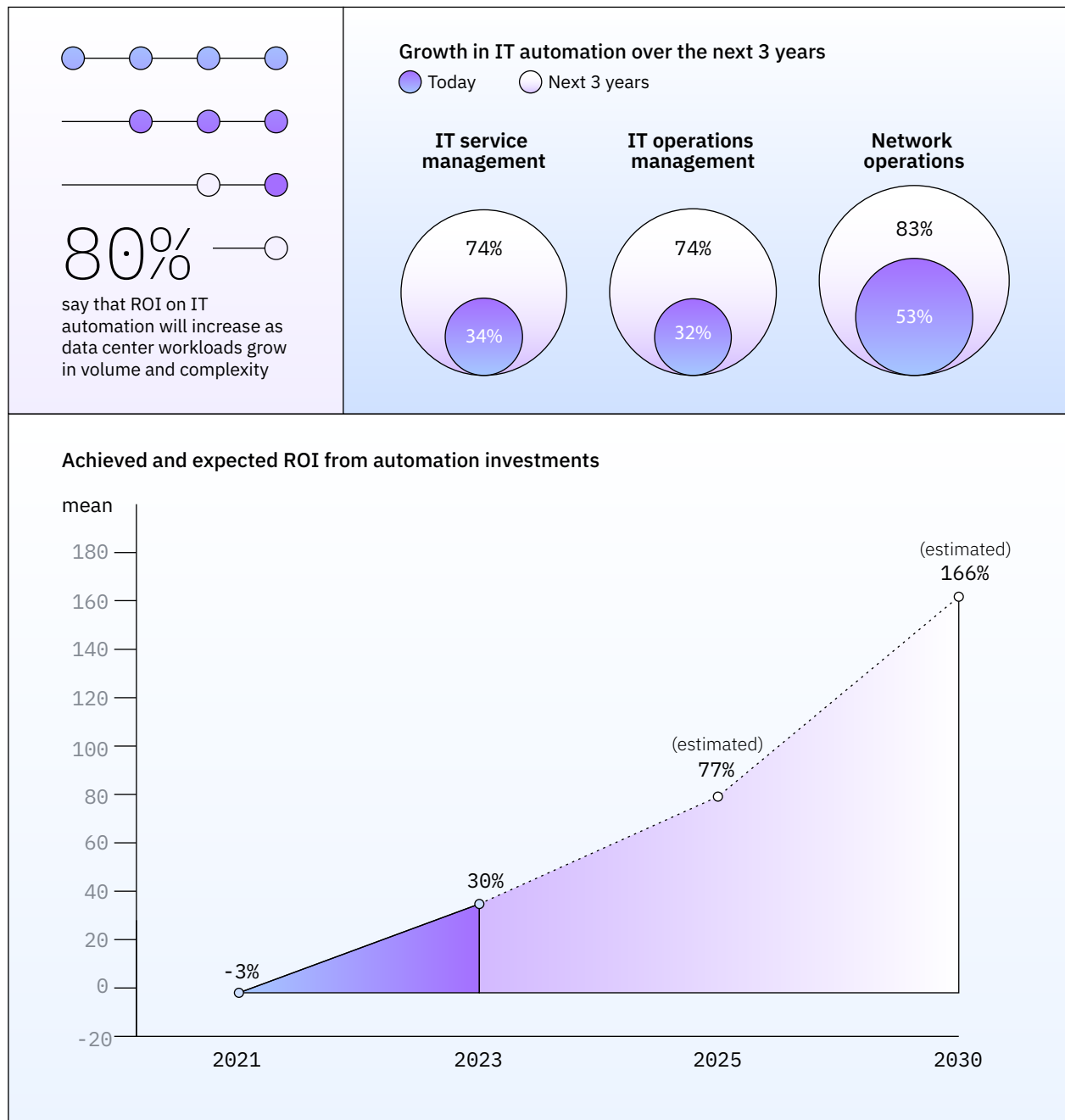
Automation as risk-tamer

Why are organizations bullish on automating IT? For starters, they're optimistic about metrics—both from a technical performance perspective and financially. The more complex the IT environment, the better the business value of automation: 80% of executives expect ROI on IT automation to increase as data center workloads grow in volume and complexity (see Figure 6).

FIGURE 6

Great expectations

Increased IT automation, increased ROI



Q. To what extent do you agree with the following statement: ROI and IT automation will increase as data center workloads grow in volume and complexity. %=respondents who agree and strongly agree. Q. On a scale of 1-5, to what extent is your organization automating the above end-to-end IT workflows over the next 3 years? %=respondents who answered 4 or 5. Q. What was the ROI on your automation investments and initiatives in 2021 and 2023? What do you expect it to be in 2025 and 2030?

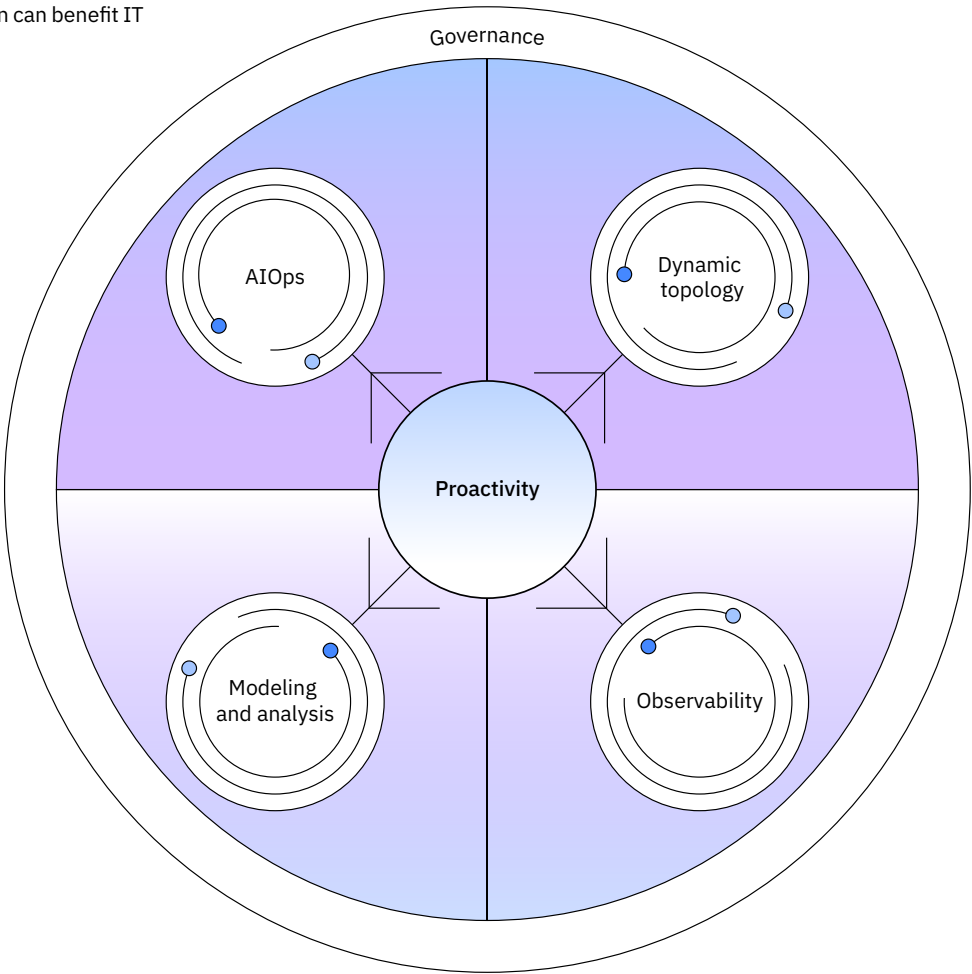
Much of automation’s value in IT lies in managing risks and issues (see Figure 7). For example, the adoption of automated *governance* policies helps ensure AI-generated assets can be traced back to the foundation model, data set, or other inputs—and ease needed adjustments and reactions to evolving regulations. In fact, 80% of Gen AI Leaders say their organization has progressed toward using automated governance policies for regulatory compliance.

As well, artificial intelligence for IT operations, or *AIOps*, uses data analytics, machine learning, and other AI technologies to automate the identification and resolution of IT issues.⁷ It can provide event correlation, helping organizations to predict and prevent potential outages and lessen negative impacts to the business and its customers. AIOps can help resolve unanticipated incidents more quickly while also identifying their probable causes. This can greatly reduce the manual effort required to determine what went wrong and how to avoid recurrences.

FIGURE 7

Proactivity at the core

How automation can benefit IT



Source: IBM Institute for Business Value.

“When change happens, you need to align your architecture, your data structure, and your processes in a consistent way with the changing business requirements. Generative AI allows that to happen at speed.”

Client executive, pharmaceutical industry

Dynamic topology, a dynamic tessellation sculpting method,⁸ visualizes data from multiple sources, offers actionable insights for issue resolution, and provides IT Ops teams with AI-based remediation suggestions to facilitate the path to resolution. And observability provides operations visibility into applications and infrastructure, to facilitate availability—mainly through event analysis via logs, metrics, and tracing.

Today’s *scenario and modeling analyses* often combine AI, analytics, and data visualization, while also leveraging generative AI-powered computing capabilities. Simulating decision impact, anticipating operational challenges, modeling preemptive new strategies, and—critically—evaluating options when there’s no available historical data are among the strengths here.

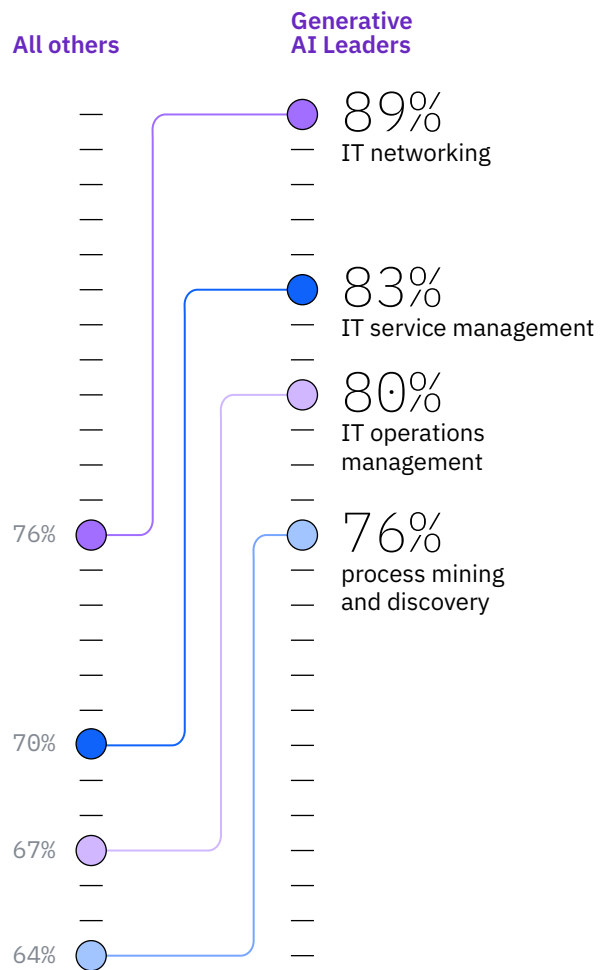
The common thread? Proactivity—and automation by its very name is exactly that. It’s automatic, preemptive, and anticipative, with instincts honed by curated data and sophisticated AI.

Gen AI Leaders, in particular, demonstrate enthusiasm about automating IT operations. Over the next three years, they expect to automate IT operations management and process mining and discovery 19% more than other organizations, to name just two examples (see Figure 8).

FIGURE 8

Pioneering progress

Generative AI Leaders accelerate IT automation



Q. On a scale of 1-5, to what extent will your organization automate the above IT operations by 2026? %=respondents who answered 4 or 5.

Chapter 4

Follow the money: Investments equal priorities

Money talks, and how executives prioritize their technology investments reveals their devotion to intelligent automation. Almost seven in ten (67%) emphasize AI, natural language processing, chatbots, and machine learning. And more than half (52%) of executives expect new technology and integration to enable greater transparency and visibility for predictive operations—enhanced with visualization and simulation.

From a holistic IT perspective, 60% invest in automation to decrease IT and network complexity. And 50% invest to deliver new and improved IT platforms and applications. Overall, accelerating workflow and digital transformation agendas and performance are prime motivators of automation investments.

If money talks, generative AI investments have their own distinct voice—and create profound impact. Gen AI Leaders prioritize generative AI investments as critical, and they've aligned their enterprise architecture with business activities and processes 40% more so than their peers. Additionally, these organizations are exceeding application and systems availability requirements while achieving performance goals as they automate network operations, service management, and operations management.

Applying Financial IT Operations (FinOps) technologies (see Perspective, “FinOps, GreenOps, AI, and automation”) combined with active resource management enables them to optimize IT spend while maintaining availability and performance. Gen AI Leaders are also integrating apps and systems as they automate data flows with event streams, enterprise messaging, and API management—and they are doing this substantially more often than other organizations. For example, this elite cadre reports automating data flows with event streams 40% more often than their peers (70% versus 50%) enterprise messaging 38% more often (65% versus 47%), and API management 28% more often (55% versus 43%).

Perspective

How FinOps, GreenOps, AI, and automation can drive sustainability goals

With its ethereal name, cloud computing doesn't evoke images of a smog-generating, resource-guzzling technology. Yet the "cloud" is very much grounded, existing on—and impacting—our planet. Consider bricks-and-mortar server farms where data is stored, and computational power supports cloud and AI applications. These buildings and systems that are, in effect, the cloud now have a greater carbon footprint than the airline industry.⁹

As public awareness of this impact increases, organizations face increasing pressure to use cloud technology responsibly and sustainably. Enter FinOps and GreenOps.

FinOps is an evolving cloud financial management discipline and cultural practice that enables organizations to optimize business value. This practice helps engineering, finance, technology, and business teams to collaborate on data-driven spending decisions.¹⁰

GreenOps is an operating model that integrates the technologies, techniques, and business practices that can optimize efficiency in the cloud—while also reducing environmental impact. It fosters more efficient resource usage with better cooling, greener building materials, and smarter control systems, which are foundational to data centers.¹¹

How do automation and AI play here? One example: AI can generate the data needed for FinOps insights. And automating workloads can help run resources only as needed and can automatically adjust what resources are running. From a sustainability perspective, this helps to align supply to demand, effectively optimize cloud usage, and provision capacity dynamically.¹² In effect, automation and AI are common threads running across both disciplines—and key contributors to an organization's sustainability strategy.

FinOps is a portmanteau of "Finance" and "DevOps," stressing the communications and collaboration between business and engineering teams.¹³

Automation begets automation

Almost nine in ten (87%) executives expect their automation strategy to help identify and execute more high-impact automation initiatives. How?

AI-powered intelligent workflows and IT automation can pinpoint the processes that could most improve business performance. By then harnessing the power of process mining data science, businesses can delve into their processes and event logs, revealing critical insights into patterns, inefficiencies, and bottlenecks. This data-driven approach paves the way for targeted productivity improvements, ultimately driving optimized process performance and bolstering overall business success. In fact, more than half of Gen AI Leaders (54%) think that process mining, integrated with IT observability, will provide an enterprise view of operations and impact analysis.

Also, application connectivity, with AI libraries, applications, and APIs, enables application-level sharing—and potentially even more automation. Organizations can now use open source libraries, frameworks, and tools for code-based, automated, and visual data science capabilities to tune models for specific business needs.

In multiple ways, automation can lead to even more automation.

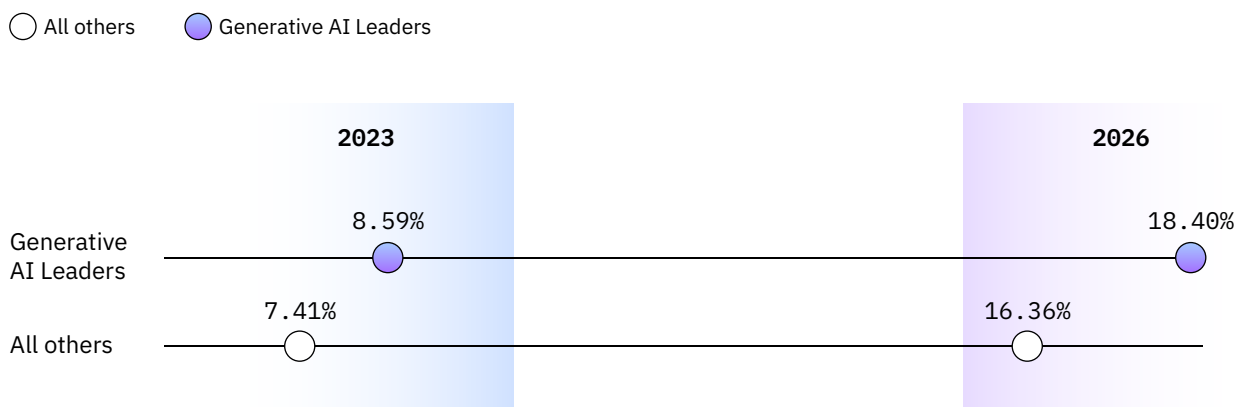
Executives have high expectations for automation and AI strategies to deliver results during the next three years, and they anticipate significant financial returns from generative AI. The average ROI of generative AI projects is edging up, with executives saying they expect it to exceed 10% by 2025. As a result, enterprises are planning to boost generative AI adoption over the next two years. This rapid uptick is partially fueled by familiarity: leaders today are better acquainted with generative AI than they were with traditional AI amid the initial AI hype cycle. As a result, executives have a much more focused view of where to deploy generative AI.¹⁴

As well, our respondents across the board expect to roughly double their revenue growth from AI-enabled operations in the next three years (see Figure 9).

FIGURE 9

AI-powered prosperity

Revenue growth expected to double over next three years



Q. What additional annual revenue growth is due to AI-enabled automation in 2023 and 2026?

Generative AI and automation are reshaping society, business, the workforce, and technology, and the potential rewards are enormous. To understand and accelerate the promise of generative AI and automation tomorrow, what should C-suite leaders do today to remove roadblocks and mitigate risks? What can they deliver this year—and improve upon next year? At the same time, how can they integrate generative AI into a broader transformation strategy? How can generative AI and automation evolve from “breaking news” to mainstream mantra? Continue to our action guide for advice, perspective, and direction.

“We’re getting pull from the business. You’ve got to prove the value. We are moving away from the hype quickly and focusing on the things that are practical to get the value flywheel moving. Currently we have two focused performance cases: one is financial and the other one is cycle time, and we have identified specific measures that we will track associated with each.”

Client executive, distribution industry

Action guide

The path to intelligent automation

Our research indicates that generative AI is not to be used sparingly. Generative AI Leaders report that this technology could have a multiplier impact, with half of these executives expecting generative AI to improve multiple aspects of their business, from decision-making to customer and workforce experiences.

And 77% say there are major returns to scaling with AI. In other words, the more your organization does, the bigger the potential returns.

Generative AI Leaders are not all talk—and really, their results speak for themselves. These organizations report earning 72% greater annual net profits and growing annual revenues 17% more than their competitors.

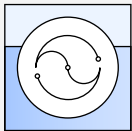
While this select group comprises 19% of our total, there's good news: your organization could join their ranks, if you emulate their tactics and learn from their success (see Figure 10). Let's get started.

FIGURE 10

Exploiting AI and automation

Seize the moment—or miss out

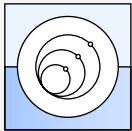
Foundational practices



Integrate your data strategy with your automation strategy.



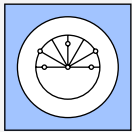
Focus on workforce higher-value tasks with digital assistant and workforce collaboration.



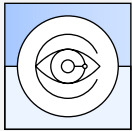
Develop agile workflows to react quickly to escalating situations.



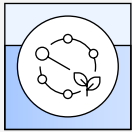
Increase productivity with intelligent automation for real-time decisions and actions.



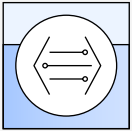
Implement AI-driven intelligent scenario simulation and visualization.



Increase visibility and security in intelligent workflows across ecosystems.

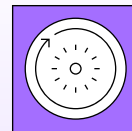


Embed automated workflows with sustainability circularity goals, metrics, and decision support.

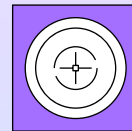


Extend FinOps capabilities across the enterprise

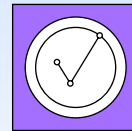
Generative AI leading practices



Accelerate Generative AI adoption to speed data utilization and insights.



Focus on core operational use cases. Innovate with generative AI capabilities. Monitor usage and outcomes.



Establish governance on generative AI use and adoption to manage risks and seize opportunities.

Action guide

The path to intelligent automation

1. **Integrate your data strategy with your automation strategy.**
 - Rethink processes and workflows with robust data management systems in a hybrid cloud model, combined with AI-powered automation.
 - Connect your business and IT with the integration tools required to connect data and operations.
 - Tool your automation workflows with application connectivity to enable multisource application data sharing.
2. **Focus your employees on workforce higher-value tasks, incorporating productive workforce collaboration using AI assistants.**
 - Increase workflow automation to enable employees to focus on higher value analysis and customer experience innovation.
 - Empower workforce talent with AI-generated insights to advance more complex decision-making across mission-critical workflows.
 - Create agile and scalable, resilient IT operations, aligned with modern business speed and productive pace.
3. **Develop agile intelligent workflows to react quickly to escalating situations.**
 - Configure workflows by assembling data in varied computing environments, supporting AI and extreme automation. Amplify AI to make these workflows even smarter.
 - Manage APIs to share third-party sources of data between applications. API management moves the data to where and when it is needed.
 - Establish event-driven architecture so that workflows are automatically data-triggered by the detection of a situation.
4. **Increase productivity with intelligent automation for real-time decisions and actions.**
 - Deploy AI and machine learning to allow better pattern recognition, workflow optimization, and solution gathering.
 - Combine predictive and prescriptive analysis and insights with business know-how for better decision-making and to deliver differentiated outcomes.
 - Train AI assistants to self-learn and provide predictive, proactive insights to boost workforce productivity, freeing their time to solve real business challenges.
5. **Implement AI-driven intelligent scenario simulation and visualization.**
 - Develop robust AI and automation capabilities to speed insights and decision-making across ecosystem intelligent workflows.
 - Apply generative AI models with visualization and simulation to uncover and proactively react to operational bottlenecks in real time.
 - Explore digital dashboard approaches, cloud management platforms, and cloud-based process mining solutions.
6. **Increase visibility and security of intelligent workflows across ecosystems.**
 - Boost transparency, visibility, and security at every touchpoint in every workflow across ecosystems.
 - Leverage the security and openness of hybrid cloud environments to deploy intelligent automation faster and more smoothly.
 - Integrate workloads as a productive automation platform—connecting networks and applications across the enterprise.

7. Improve sustainability circularity goals, metrics, and decision support. Embed while automating workflows.

- Optimize IT operations to avoid the financial and environmental costs of overprovisioning.
- Innovate process and data mining engineering, including configurations with lifecycle circularity considerations.
- Monitor transaction reliability (what happened when) with event streaming.

8. Extend FinOps capabilities across the enterprise to gain visibility into costs and spending spanning all AI, hybrid cloud, and application modernization investments.

- Access your organization’s maturity in business and engineering teams—and their initiatives. Develop recommendations and actionable key performance metrics.
- Map the actions and metrics to specific projects, applications, and initiatives to optimize spend and outcomes.¹⁵
- Utilize ROI calculators to develop options for end-state scenarios around architecture and operating patterns.

9. Accelerate generative AI adoption to speed data utilization and insights.

- Invest consistently in the near- and long-term potential of automation.
- Foster an open culture that encourages continuous experimentation, new skill development and ways of working, and productive collaboration.
- Upskill people and train them on the tools needed to speed decisions and actions.

10. Focus on core operational use cases. Innovate with generative AI capabilities. Monitor usage and outcomes.

- Connect devices and physical assets with intelligence to provide data for process mining to understand the current state, learn from it, and act accordingly.
- Embed automation within these physical devices and assets, supported by AI assistants for greater productivity, responsiveness, and efficiencies.
- Concentrate investment in high-priority workflows, pilot, and scale with speed.

11. Establish governance on generative AI use and adoption to manage risks and seize opportunities.

- Map the full range of preemptive data initiatives needed to connect people and technology across the organization and its ecosystem.
- Enact a culture that encourages discovery and openness to change with the understanding that ideas can come from anywhere.
- Put in place a comprehensive governance model that encompasses all dimensions of generative AI transformation in the organization and aligns to the corporate key performance indicators (KPIs).

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Research and methodology

The IBM Institute for Business Value, in conjunction with Oxford Economics, interviewed and polled over 2,000 executives with equivalent roles and titles including Chief Automation Officer (CAO), Chief Supply Chain Officer (CSCO), Chief Operations Officer (COO), Chief Information Officer (CIO), and Chief Financial Officer (CFO).

These respondents spanned 21 countries, as well as 10 industry sectors representing energy and utilities, petroleum, industrial products, electronics, telecommunications, government, healthcare/life sciences, consumer products, and transportation/logistics, each comprising 5% to 15% of our total respondent sample.

The size of organizations surveyed, in terms of revenue, ranges from \$500 million to \$500 billion.

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