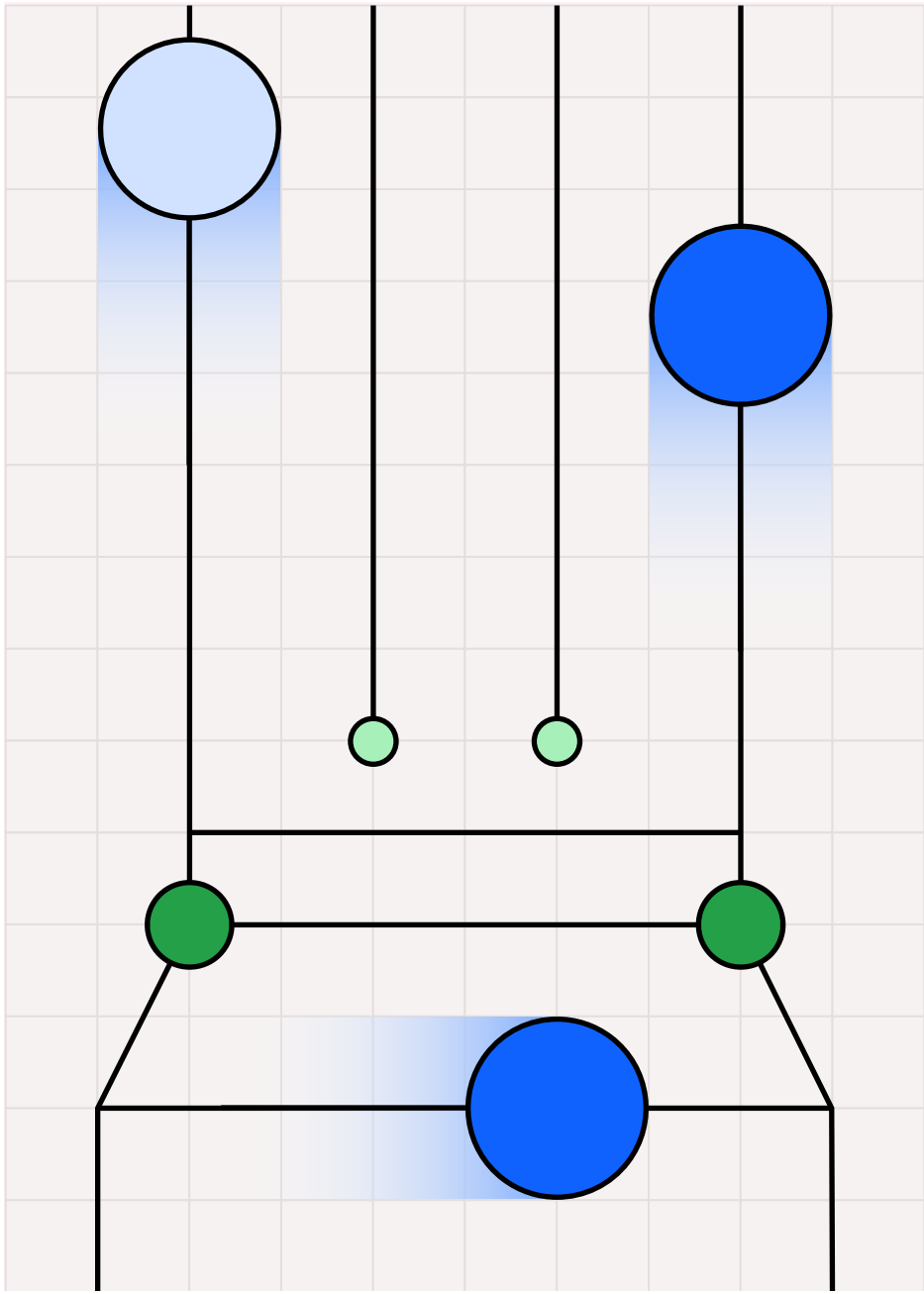
Government in the AI era

Enabling missions from defense and security to public health, education, and citizen services



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Foreword

Throughout history, governments have been the architects of progress. From space programs that lifted humanity beyond Earth to the creation of the internet that connected us, public institutions have consistently driven global transformation. Each leap forward began with a shared vision and the courage to act boldly, even during uncertain times.

Today, artificial intelligence marks the next great inflection point. By 2030, AI will not merely support public missions, it will shape them. While this technology will not solve every challenge facing governments and society today, it will be instrumental to every government mission—from defense and security to healthcare, education, and citizen services. But realizing AI's potential requires governments to prepare institutions, infrastructure, data, and people today.

AI will never replace the dedication, judgment, or empathy that defines public leadership. What it can do—when implemented responsibly and strategically—is amplify the ability of public servants to deliver impact at scale, anticipate crises, and deliver more tailored services and experiences for constituents.

When guided by human-centered purpose and public trust, AI can become one of the greatest instruments of progress our societies have ever known. By investing boldly, leading ethically, and acting together, we can build governments that are not only more efficient and secure, but more personal, more inclusive, and more resilient.

I would like to thank the authors of this report, the 100 senior government executives who shared their perspectives through our research, and the many Fellows from our partner, the National Academy of Public Administration, whose deep experience in public leadership and governance helped shape the insights and recommendations reflected throughout these pages.

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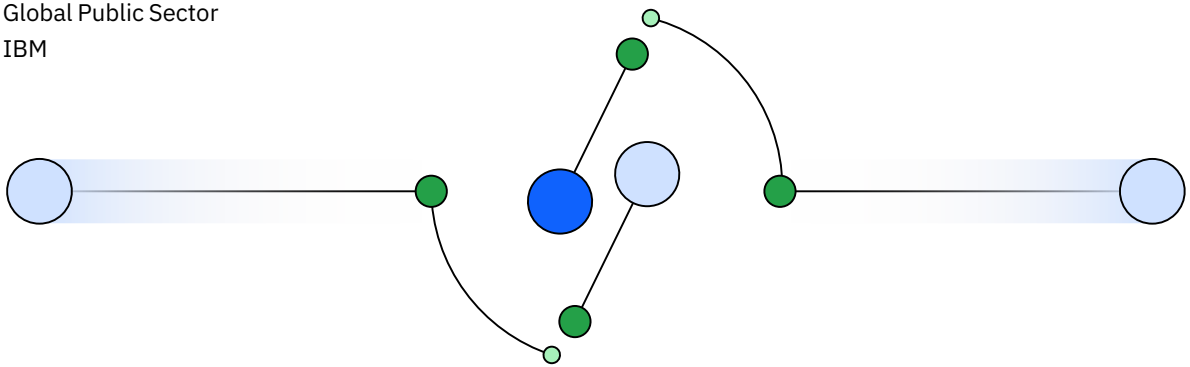
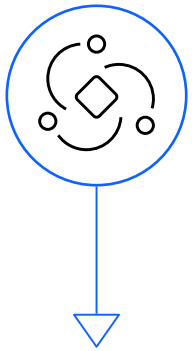
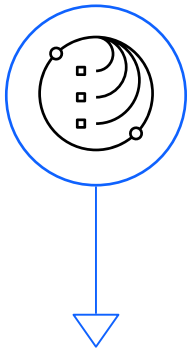


Key takeaways



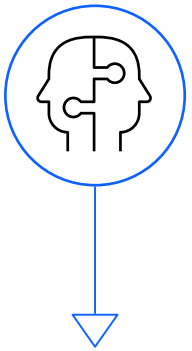
Government leaders will accept the risks of uncertainty to reap the rewards of AI.

69% of government executives acknowledge that the potential productivity gains from AI and automation are so great they must accept significant risk to keep pace. And nearly nine in 10 plan to accelerate transformation despite uncertainty. The message is clear: inaction is an unacceptable risk.



Governments are significantly increasing AI spending and moving beyond data readiness to enterprise-wide AI adoption.

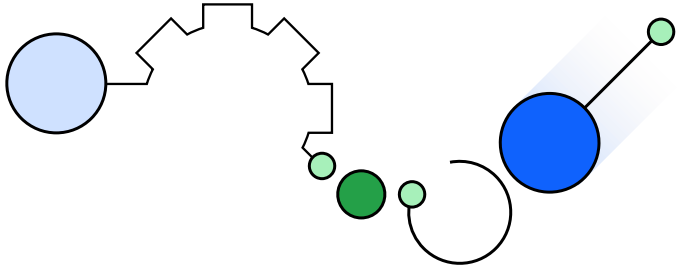
Currently, governments allocate about 8% of their IT budgets to AI, a share projected to exceed 13% by 2030—a nearly 70% increase. As investments in data management, quality, and governance mature, leaders expect 50% to 80% of their enterprise data could be useful for AI applications. However, today only about 7% of government data is actively leveraged by AI systems, indicating that the full organizational value of AI remains largely unrealized.



Advancing AI maturity in government will depend on closing AI skills gaps and building governance frameworks.

62% of government leaders point to workforce and talent development as a critical area to focus on during the AI readiness journey. This concern is followed closely by the need to build out ethical, legal, and regulatory frameworks, cited by 55% of government executives.

A new era of public leadership



The story of government in the AI era begins in uncertainty. Across the world, leaders are confronting an environment defined by volatility: geopolitical realignments, economic fragmentation, extreme weather, cyberattacks, and the cascading effects of social unrest.

The mission of government—to protect, serve, and empower—has rarely felt more complicated or more consequential.

Yet amid this turbulence lies opportunity. Technological breakthroughs, particularly in AI and automation, are redefining what is possible in governance. These advances can enable public leaders to do more than digitize the past; they can design government for the future.

In this environment, five strategic imperatives emerge as essential to every government seeking to thrive: innovation, engagement, efficiency, security, and resilience. These are not isolated priorities—they are interdependent levers of transformation. Together, they form the foundation of future-ready governance and provide an integrated framework for anticipating disruption, adapting with speed, and building trust in an era of constant change.

Advancing these imperatives will require more than using new technology. The pace of disruption now exceeds the pace of institutional adaptation, forcing public leaders to make decisions faster, under greater scrutiny, and with higher stakes than ever before. The question is no longer whether governments should change, but how boldly they are willing to lead that change.

In this moment, leadership itself is being redefined. According to the IBM Institute for Business Value (IBM IBV) 2025 CEO Study, 69% of government executives acknowledge that the potential productivity gains from automation are so great that they must accept significant risk to keep pace. And nearly nine in 10 plan to accelerate transformation despite uncertainty.[1] The message is clear: the greatest risk of all is inaction.

The trust dilemma

Trust sits at the center of the AI story. For AI, trust is a measure of legitimacy. Without it, even the most advanced systems lose their social license to operate.

A separate study we conducted of more than 13,000 constituents across nine countries reveals a subtle but significant shift in public sentiment. While concerns about data privacy, job loss, and the erosion of human oversight persist, a growing majority of citizens now support the use of generative AI for essential services such as tax assistance, customer support, and education. Even more striking, trust in AI-enabled services has risen since 2023, while trust in human-assisted ones has declined.[2]

This paradox encapsulates the challenge of modern governance. Individuals may distrust institutions, yet they are increasingly comfortable with the technologies those institutions deploy. Only one in three constituents say they have high trust in their central government, but more than half express confidence in AI-enabled citizen services.[3]

Closing that gap requires governments not only to use AI responsibly but to demonstrate visibly that they are doing so. In the AI era, transparency cannot be a communications strategy; it must be a core design principle.

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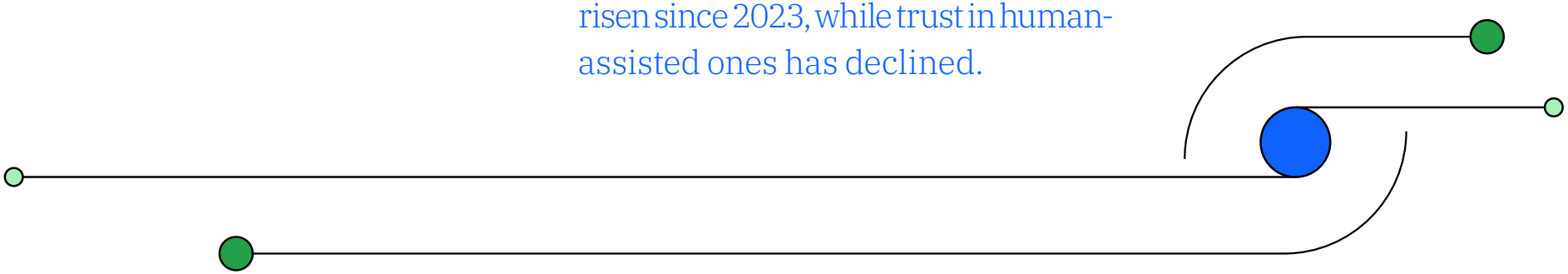


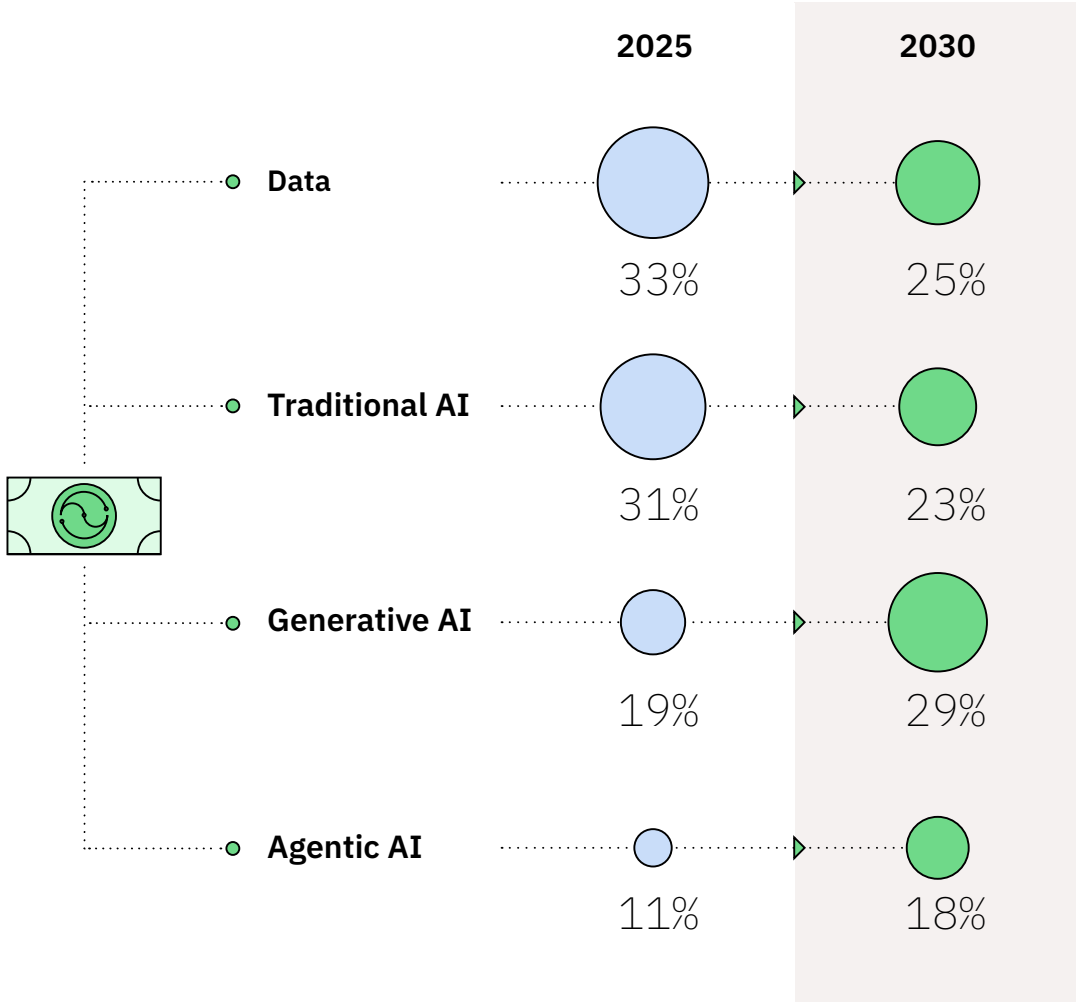
Momentum and maturity

Behind the public mood, a quieter revolution is unfolding inside government organizations. To better understand how this transformation is taking shape, the IBM IBV surveyed senior government technology leaders from six countries (see Research methodology). The picture that emerged is mixed: ambition is high, adoption uneven, and readiness is still in early stages.

Today, governments dedicate an average of almost 8% of their IT budgets to AI, a figure expected to climb to more than 13% by 2030—an increase of nearly 70%. Leaders indicate that most AI-focused investments today still flow into the essential but often overlooked foundations of data management, quality, and governance. By the end of the decade, however, that spending is expected to shift decisively toward generative and agentic AI (see Figure 1). This signals governments' intent to scale from experimentation to enterprise adoption.

FIGURE 1

On average, AI budget allocations are expected to shift away from data and traditional AI and into generative and agentic AI over the next five years.



Yet funding alone cannot bridge the maturity gap. Leaders estimate that less than one-quarter of their organizational data is AI-ready today and only about 7% of total data is actively used by AI. At the same time, they say between 50% and 80% of their enterprise data could be valuable if properly prepared—a reminder that the current constraint lies not in technology but in the structure and accessibility of information itself (see Figure 2). The data readiness gap remains one of the most significant hurdles to realizing the full promise of AI.

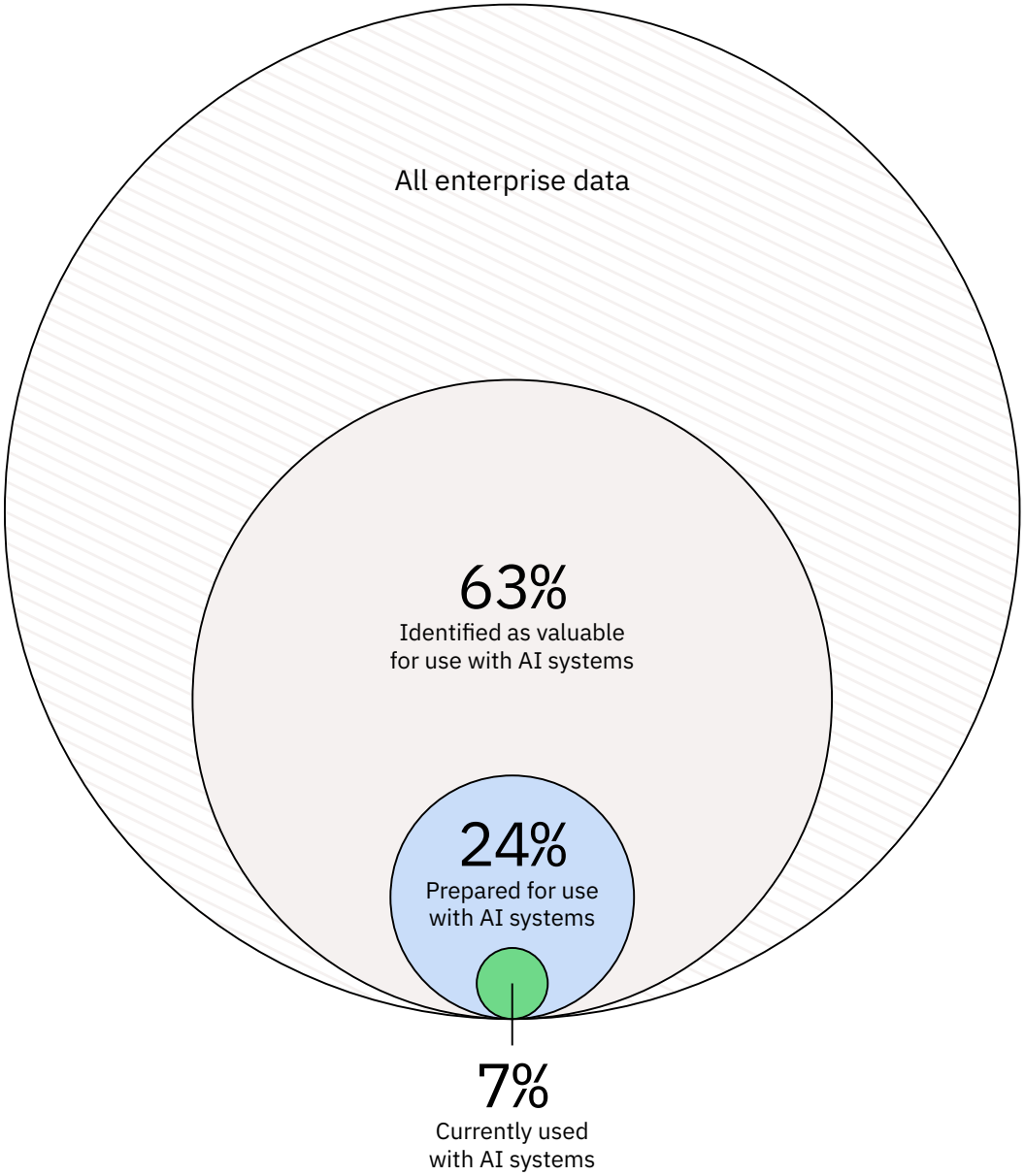
Even so, progress is accelerating. These examples show why:

- The U.S. Department of Veterans Affairs used intelligent automation to cut claims processing times by 97% to save over 550,000 hours of human labor.[4]
- Italy's workplace injury and disease compensation body, INAIL, deployed an AI-powered virtual assistant to manage a 50% surge in benefit applications.[5]
- Case workers in the German Youth Welfare Office in Langratsamt Augsburg are leveraging AI to summarize multisource case data, reducing case research time by 9%.[6]
- At the frontier of scientific discovery, the European Space Agency (ESA) partnered with IBM Research® and other research partners to launch TerraMind—a generative AI model that integrates satellite imagery and Earth observation data to improve climate resilience, disaster response, and resource management across Europe.[7]

Together, these examples reveal a pattern: when governments pair data discipline with human-centered design, AI delivers measurable value. Each success story underscores the same truth—the future of government will not only be defined by the scale and quality of its data, but also by its ability to use that data intelligently.

FIGURE 2

While an average of 63% of enterprise data is identified as valuable and 24% has already been prepared, only 7% is actually being used with AI today.



The rise of agentic AI

The next evolution of AI is already taking shape. Agentic AI moves beyond executing predefined tasks to acting as an autonomous software entity capable of reasoning, decision-making, and continuous improvement.

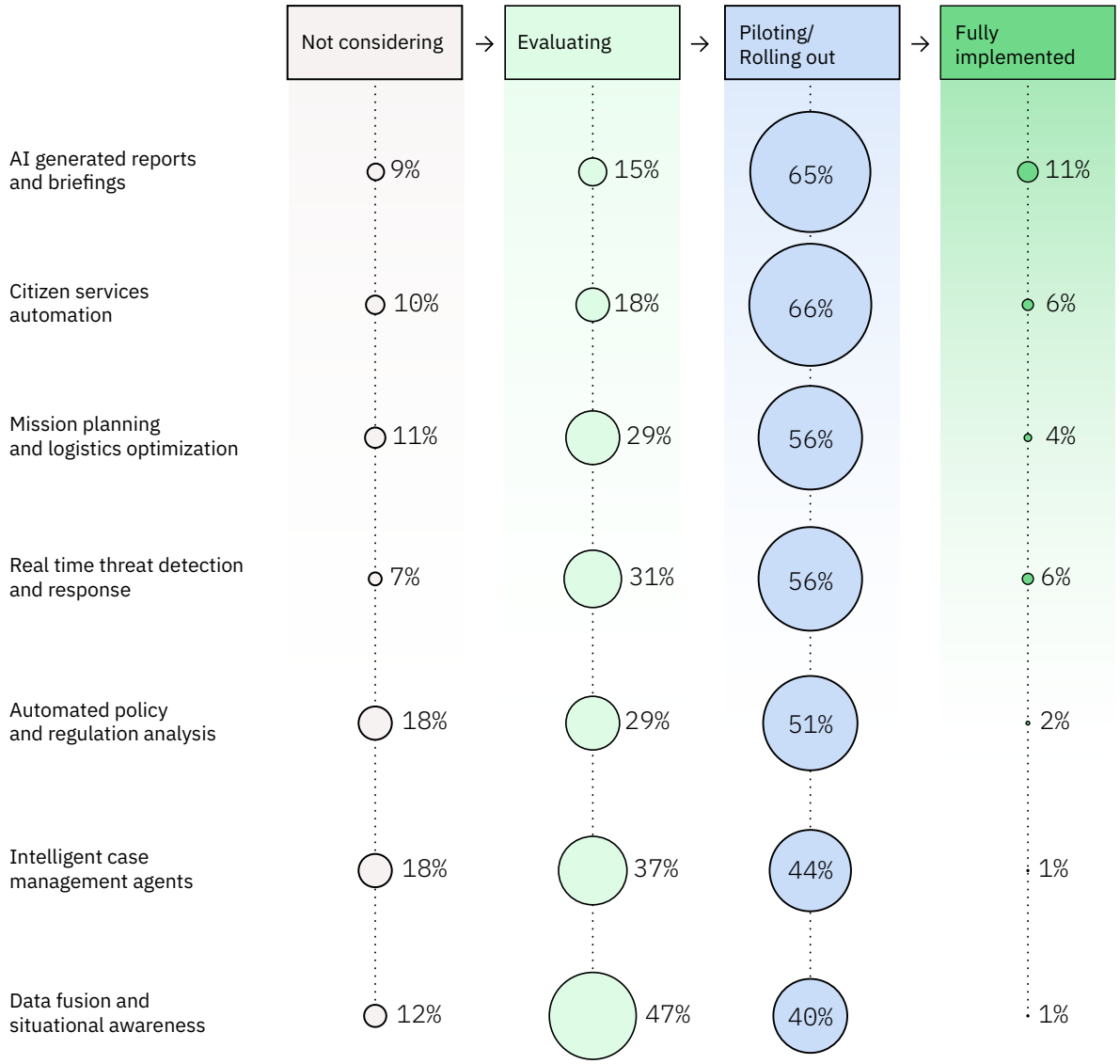
Unlike traditional AI systems, it combines large language models with task-oriented reasoning, workflow design, tool integration, and machine-to-machine execution through APIs.

By interpreting data, deciding on actions, and learning from outcomes without constant human supervision, a digital agentic AI agent functions as digital labor.[8]

While only a small set of government organizations report implementing agentic AI solutions today, a substantial majority are actively evaluating or piloting this technology across various mission-focused use cases (see Figure 3).

FIGURE 3

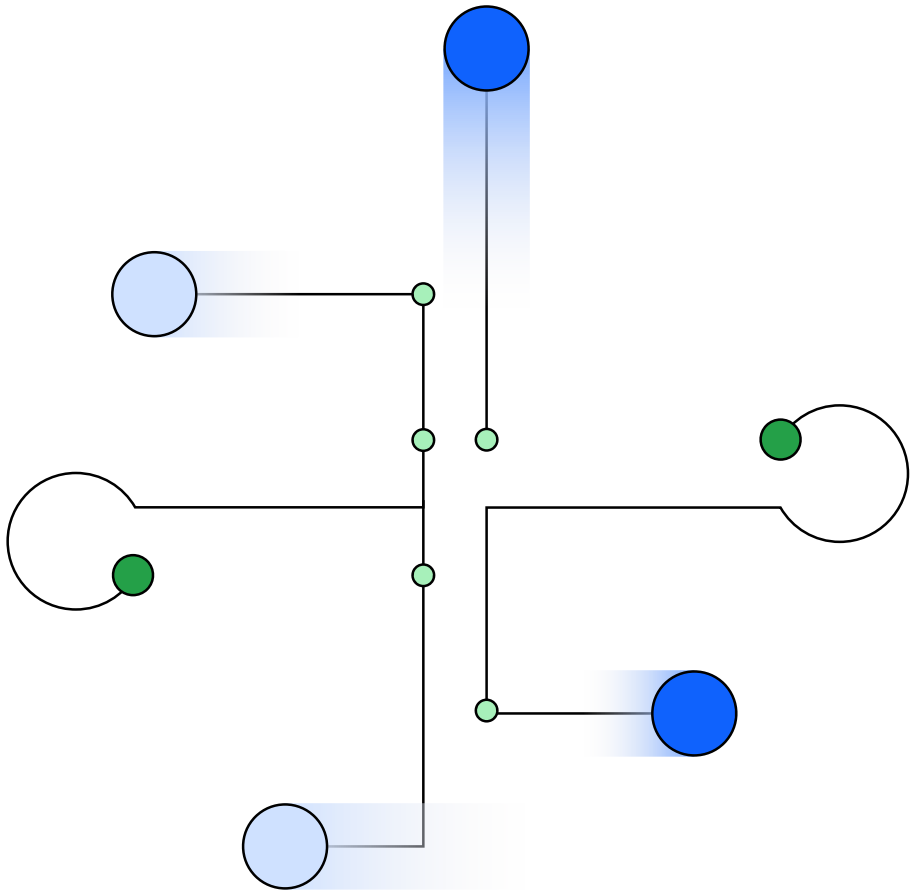
A wide variety of agentic AI use cases are being explored and piloted, but few have progressed to full scale implementation.



AI adoption trends reveal a strategic focus by governments on areas where agentic AI can yield high returns. AI-generated reports and citizen services automation are at the forefront, with leaders also seeing broad applications for legislative compliance, legal reviews, and impact assessments. Similarly, intelligent case management agents are being widely considered for tasks such as benefit processing, fraud investigations, and public safety operations.

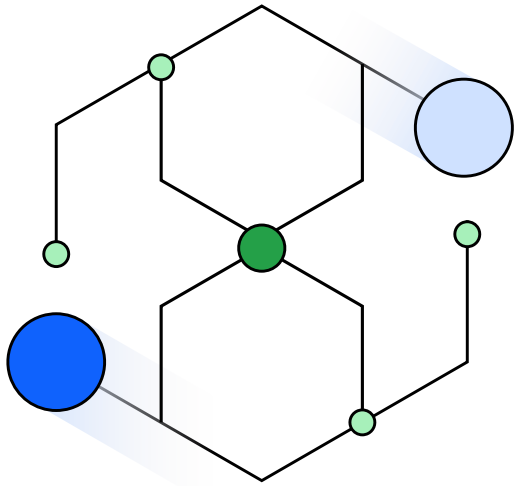
These use cases point to a common conclusion: agentic AI is not about replacing people, it is about expanding their capacity. They bridge human intent and machine execution—representing a force multiplier for governments. In environments where the stakes are high and time and accuracy can save lives—from natural disaster to cyberattack response—agentic AI solutions will become indispensable collaborators.

Agentic AI is not about replacing people, it is about expanding their capacity.



AI’s evolution in government

From automating tasks to human-machine teamwork



As governments build on early momentum in leveraging AI, leaders are also focusing their attention on what lies ahead.

The future will be defined not only by what machines can do, but by how they will learn, collaborate, and extend human capacity across the missions that matter most.

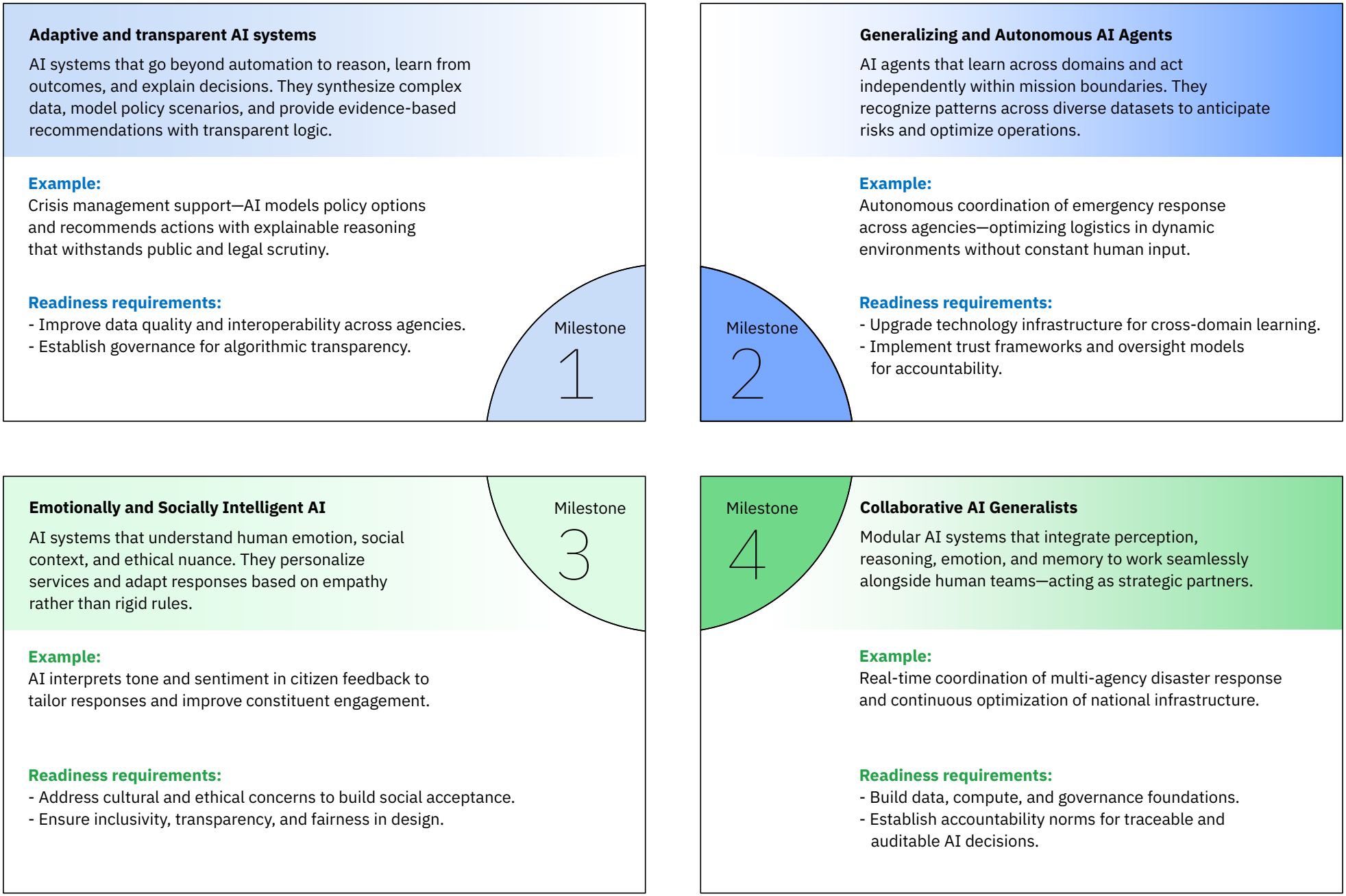
The IBM AI roadmap offers a vision for how AI may evolve—from today’s task-based automation toward adaptive, autonomous, and ultimately collaborative systems capable of reasoning alongside humans.[9] Guided by this roadmap, government technology leaders were asked to describe how they see AI capabilities evolving over the next decade across four key capability milestones (see Figure 4). For each, they were asked where those capabilities will deliver the greatest mission impact, and how long they expect it will take their organizations to realize them.

Leaders’ expectations on when each capability milestone will be fully realized vary widely. Some anticipate rapid advancement within the next few years, while others see a longer horizon extending toward the end of the decade or beyond. Most acknowledge that realization will depend on parallel progress in data readiness, interoperability, governance, and public trust.

Across all four milestones, leaders see a future defined less by machines replacing humans than by machines elevating human capacity. The path forward is ambitious, but the direction is clear: as data becomes more complete, systems more transparent, and agents more adaptive, AI will evolve from an instrument of automation to an ecosystem of collaboration— one capable of enabling the strategic imperatives that define future-ready government.

FIGURE 4

AI capability milestones progress from automation to collaboration, enabling reasoning, autonomy, empathy, and seamless human–machine teamwork.



Building a foundation for AI readiness

The promise of future AI capabilities can only be realized through deliberate investment in readiness today.

The milestone journey—from adaptive systems to collaborative intelligence—underscores a simple truth: governments cannot leap into the future if their institutions are not equipped to sustain it. The next decade will test how quickly they can build the organizational muscle and national infrastructure needed to realize the growing potential of AI.

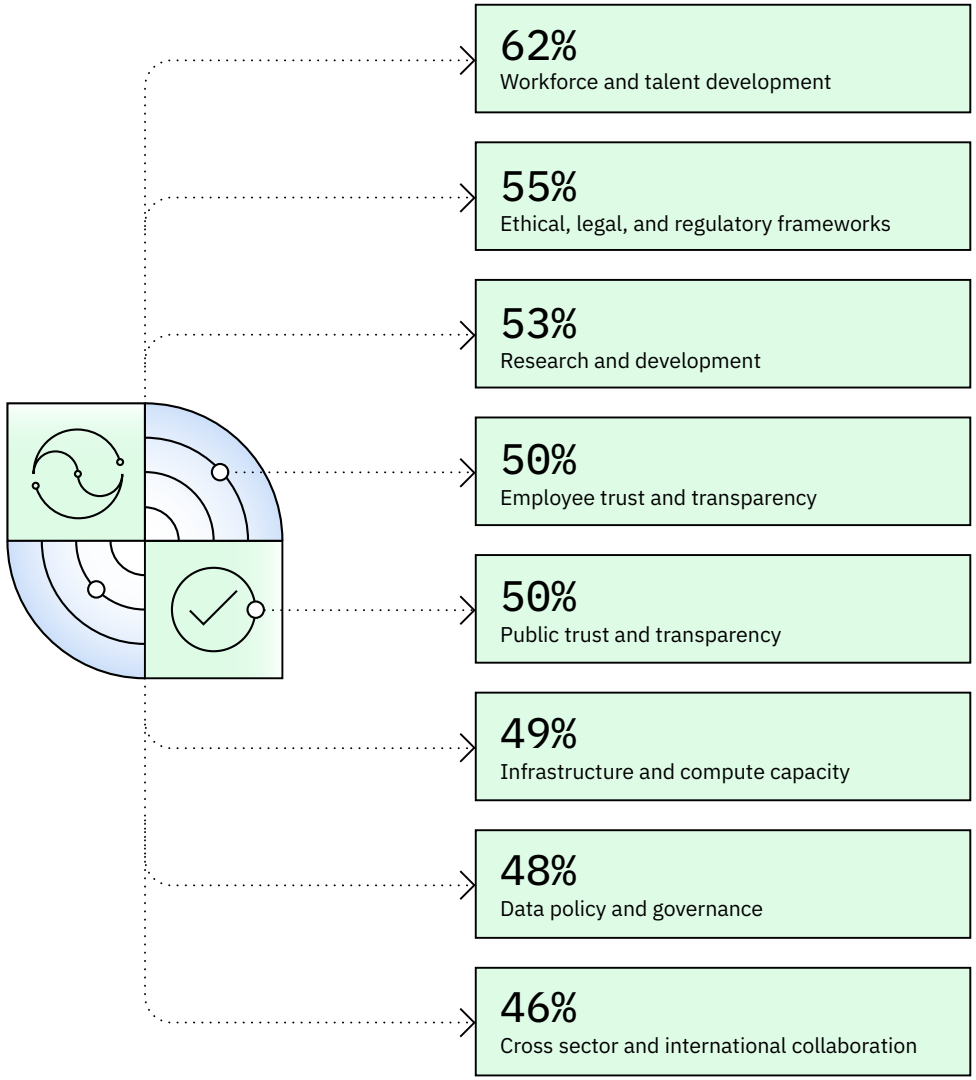
Organizational readiness

Evolving capability and managing risk

Across all levels of government, leaders we interviewed identify the same starting point: talent (see Figure 5). Workforce and talent development emerged as the single most critical capability required to advance organizational AI maturity while talent shortages were identified as the greatest risk. No amount of data or compute power can compensate for a shortage of digitally fluent public servants capable of governing, deploying, and explaining AI systems responsibly.

FIGURE 5

When asked to identify the most critical areas for advancing AI maturity, CTOs pointed to people and talent most frequently.



Q: Which areas are most critical for your organization to advance AI maturity? (Leaders were asked to select up to five. Top 8 shown.)

Nevertheless, the organizational readiness challenge looks different depending on which level of government you serve.

- **Federal and central governments.** National leaders see cross-sector and international collaboration as a critical key to maturity. Their missions increasingly depend on information-sharing across agencies and borders, from cybersecurity to health and climate response.
- **State and provincial governments.** Tech leaders at this level prioritize the need for research and development capacity that connects public missions with universities and technology partners to accelerate experimentation and translate breakthroughs into operational tools.
- **Local governments.** Leaders operating closest to citizens recognize the need for ethical, legal, and regulatory frameworks as key for advancing their organizational AI maturity. AI readiness is as much about trust as technology: citizen-facing systems are where algorithmic transparency, accessibility, and fairness are most visible.

Despite differing priorities, all levels of government face similar challenges, including talent shortages, infrastructure bottlenecks, and the risk of ethical or societal backlash. These risks are linked to both internal gaps, such as skill deficiencies, and external pressures including fragmented regulation, public skepticism, and uneven access to enabling infrastructure. Organizational readiness is not a single capability but a balance of capability, competence, and culture.

> "There are no shortcuts. Building the culture, attracting and trusting talented people, and giving them the runway to succeed—that takes years. Preparing the workforce to embrace change is as critical as any technology we deploy."

Andrei Dumitrescu
CDO and Deputy General Counsel
State of Tennessee
Division of TennCare

National readiness

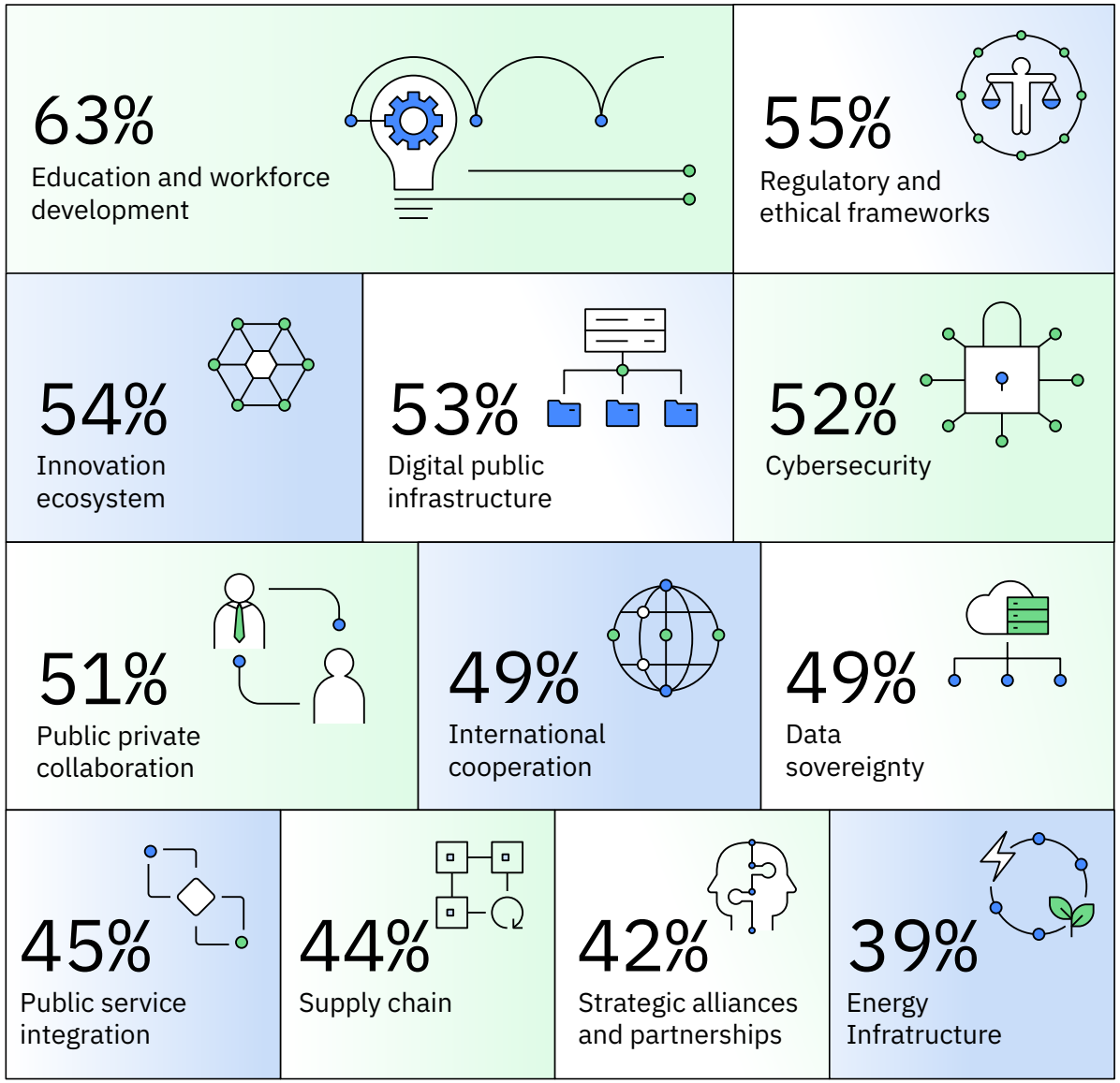
Investing in resilience

For governments, readiness is uniquely complex. Unlike any single commercial sector, public institutions must balance the full spectrum of public and societal responsibilities— defense, health, education, infrastructure, economic policy, and public safety—while safeguarding trust and stability. Governments are, in essence, an "industry of industries" charged not only with delivering services but also with building the capabilities, systems, and institutions on which entire nations depend. This dual role of operator and enabler places greater responsibility on governments in advancing national and regional AI maturity.

At the national level, AI readiness is synonymous with sovereignty and resilience. The same themes recur across the countries where we surveyed leaders, but their emphasis varies by context. More than three in five leaders cite education and workforce development as the cornerstone of national AI capability, preparing the next generation of data scientists, engineers, and policy thinkers who can navigate the ethical and operational complexities of AI-driven governance (see Figure 6).

FIGURE 6

The most important factors for building national AI resilience.



Q: Which of the following are most important to building national AI resilience in your country? (Leaders were asked to select up to six.)

Beyond talent, four additional priorities surface repeatedly: regulatory and ethical frameworks, digital infrastructure, innovation ecosystems, and cybersecurity. However, their relative weight varies by nation.

- **India and the UK.** These leaders emphasize the strength of the innovation ecosystem, pointing to the criticality of start-ups and cross-industry collaboration as engines of national resilience.
- **Germany.** Here, the conversation centers on energy infrastructure—recognizing that data center sustainability and energy security underpin both digital ambitions and economic security.
- **United States.** Leaders stress digital infrastructure and data sovereignty, reflecting the responsibility to protect critical data, ensure operational continuity, and maintain control over the technologies that underpin public trust and security.
- **Australia.** Leaders prioritize cybersecurity and cultivating a future-ready workforce. By safeguarding national digital assets and building resilience against emerging threats, cybersecurity has become increasingly critical. Investments in education and workforce development aim to equip citizens with the skills needed to thrive in an AI-driven economy.

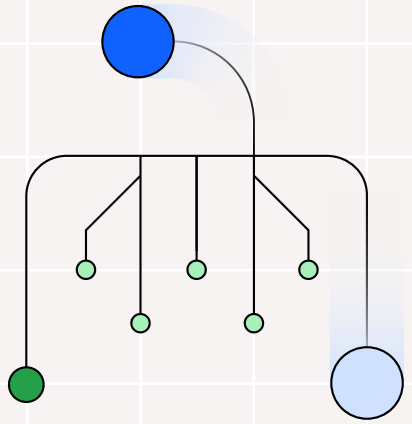
Priorities will vary across nations, reflecting their distinct economic structures and policy maturity. Yet they all converge on a single truth: AI capability has become a measure of geopolitical strength. Building this capability demands more than vision, it requires execution. Government leaders globally are working tirelessly to build the foundations by investing in talent, infrastructure, and governance. The hard work ahead is in scaling and collaboration.

AI capability has become a measure of geopolitical strength.

Action guide

To convert readiness into realized value, governments must now act with focus and urgency. This action guide distills decisive steps leaders can take today to bridge the readiness gap and unlock AI's full potential for national and societal good.

As governments look to 2030, three leadership actions stand out—each anchored in the five strategic imperatives noted earlier and designed to convert potential into performance.



Treat data as national infrastructure

Government data is a public good. Governments must define and manage it to help ensure interoperability without sacrificing sovereignty. Federated data fabrics can connect critical systems (e.g. health, transportation, and security systems) to create real-time situational awareness while preserving privacy. Countries that treat data as strategic infrastructure will move from reactive to predictive governance.

Embed AI-enabled tools to improve governmental resilience to shock events

In a world of continuous disruption, resilience is a strategic imperative. AI-enabled digital twins and predictive analytics allow leaders to simulate crises and test responses before they occur. Governments must embed this capability into infrastructure planning, supply chain management, and social service delivery. Anticipation, not reaction, will define the next generation of governance.

Integrate agentic systems into core government missions

The era of experimentation is ending. To scale AI responsibly, governments should build standard governance models that define where AI acts autonomously and where human oversight is required. By embedding AI agents into core missions—policy design, emergency response, benefits processing—leaders can achieve measurable productivity and decision quality gains. Early adopters will set the standards for trust and transparency that others will follow.

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Research methodology

IBM Institute for Business Value (IBV), in partnership with Oxford Economics, surveyed 100 senior government executives across national (50%), state (30%), and local (20%) agencies in the US, UK, India, Singapore, Australia, and Germany. Respondents included Chief Technology Officers, Chief Data Officers, Chief Data and Analytics Officers, or equivalent roles, each screened to ensure responsibility for shaping AI and technology strategy within their organization. The survey was conducted between July and September 2025.

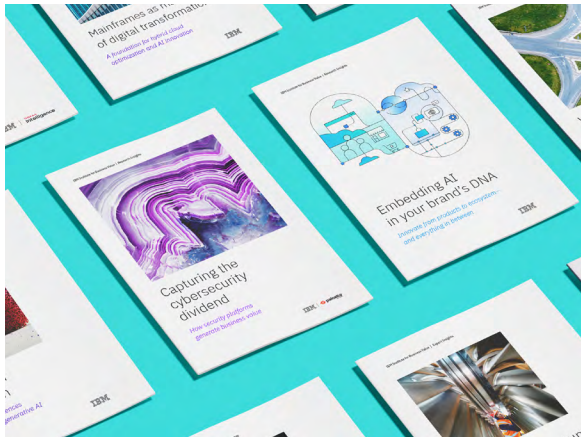
These leaders represent organizations with a broad range of mission functions, including general public services, defense, public order and safety, economic affairs, environmental protection, housing and community amenities, health, recreation, culture and religion, education, and social protection. The total number of employees at the represented organizations ranged from 300 to 350,000, and the 2025 budgets ranged from $50 million to $295 billion.

The IBM IBV developed a 28-item questionnaire using multiple formats—multiple-choice, Likert scale, numerical, and open-ended questions—while Oxford Economics oversaw a double-blind data collection process to ensure objectivity. The survey captured key demographic variables and examined organizations' current use, expectations of, and strategic investments in emerging technologies such as traditional AI, generative AI, agentic AI, and quantum computing. It also gathered information about current and anticipated maturity levels, risks, barriers, and opportunities associated with AI implementation, alongside issues related to national AI resilience.

The survey also explored longer-term (five- to 10-year) expectations for advanced AI capabilities and their anticipated impact at the agency level, framed around IBM's five strategic imperatives for governments in the AI era: institutional innovation, constituent engagement, operational efficiency, security (cyber and physical), and organizational and mission resilience. The capabilities surveyed corresponded to the AI roadmap outlined in the IBM Technology Atlas.

Our analytical approach began with foundational data preparation and descriptive statistics to ensure data quality and identify initial insights. Contrasts and pairwise comparisons were then applied to evaluate relationships among demographics, investment, and maturity in AI capabilities—including data governance, prompt engineering, quantum computing, and categories of traditional AI, generative AI, and agentic AI—as well as attitudes toward trust, risk, innovation, and future investment. Significant differences were assessed using a threshold of $p < 0.05$ and key contrasts are detailed in this report.

In addition, insights and recommendations in this report draw on a series of 13 interviews conducted by the IBM IBV government team with current and former government executives, all recognized as Fellows of the National Academy of Public Administration. Collectively, these executives have decades of experience across a variety of government agencies. Many are currently making, or have recently made, strategic decisions regarding AI adoption within their agencies. These leaders shared candid perspectives informed by their oversight of past technological transformations across the public sector. These interviews provided invaluable perspective in designing the survey instrument, interpreting the data, and shaping key takeaways and recommendations.



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Notes and sources

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