

How can the transformative power of data and AI drive greater public value?

Governments understand the potential of data and artificial intelligence (AI), but the cost of inaction grows daily. Learn from government pioneers.



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Governments understand the potential of data and artificial intelligence (AI), but the cost of inaction grows daily. Learn from government pioneers.

Governments worldwide face a critical inflection point as they confront a convergence of challenges: fiscal constraints, workforce pressures and lagging productivity alongside complex geopolitical and societal issues and eroding levels of trust, all while people's expectations and demands on them grow.

Our detailed research across 14 countries, conducted in partnership with Oxford Economics, shows that data and AI technologies offer precisely the capabilities needed to address these challenges. They aren't just tools for efficiency – they represent a fundamental shift in how governments can deliver public value in the 21st century.

The cost of inaction in adopting data and AI technologies is increasing daily. Organizations delaying implementation risk widening service gaps, eroding public trust, undermining fiscal sustainability and, ultimately, compromising their core missions.

Meanwhile, as our research reveals, pioneers are already capturing significant benefits that enhance service delivery and operational efficiency.

This paper represents the first in a two-part series. In this initial report, we focus primarily on the research findings themselves – examining the state of government AI adoption, quantifying the implementation gap, identifying the challenges organizations face and introducing a framework for implementing AI, drawing on insights from government organizations that are leading the field.

Our second report will build on these insights to deliver detailed, practical guidance on how organizations can apply this framework to advance their own data and AI journeys.

Who should read the report?

This study equips government leaders with actionable insights for navigating the complex AI landscape. Organizational leaders will find a framework for strategic decision-making. Chief digital, information, data and AI officers will gain practical implementation roadmaps and strategies to overcome common barriers. Talent leaders will discover approaches for workforce transformation, learning and development, and building organizational readiness. The broader leadership will benefit from evidence-based perspectives on how leading government organizations leverage these technologies to deliver measurable improvements in service quality, operational efficiency and public value.

We hope you find our first report an interesting and insightful read. Learning from peers can provide benefits to help navigate a way forward to implement data analytics and AI in a complex world.

We look forward to sharing our second report with you in the third quarter of 2025.



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Executive summary

The international EY study, conducted in partnership with Oxford Economics, involved a survey of nearly 500 senior government executives, and in-depth discussions with 46 government leaders and AI experts in 14 countries. It reveals how governments can unlock the transformative potential of data and AI to drive greater public value, but they have some way to go on the journey.

Key findings

1

Government and public sector organizations recognize the value of data and AI, but an implementation gap remains

Despite widespread recognition of AI's potential in government, with 64% agreeing that adoption will lead to significant cost savings and 63% believing it can improve services, actual deployment levels remain relatively low, with only 26% having deployed AI in parts or fully across their organization and just 12% implementing generative AI (GenAI) solutions.

This implementation gap represents a growing concern as governments face converging pressures of resource constraints, rising service demands and eroding public trust. It creates both risk for those who delay and opportunity for those who act decisively. This urgency seems broadly understood: 58% believe government and public sector (GPS) organizations need to hasten the pace of data and AI adoption.

Perceptions of value



agree adoption of AI will lead to significant cost savings and staff redeployment.



agree that AI has the potential to improve their organization's services.



agree GenAI will transform governments' ways of working in the next five years.

Levels of adoption



of organizations have deployed AI (excluding Gen AI) partially or fully, across their organization.



of organizations have deployed GenAI, either partially or fully, across their organization.

2

The survey revealed a cohort of pioneers that are successfully implementing AI focused simultaneously on technical foundations and organizational readiness

These pioneers successfully bridge the implementation gap by following a clear formula for success:

They lay the essential groundwork before progressing to AI – establishing a robust data infrastructure, digitizing processes and developing analytics capabilities first.

They develop comprehensive data governance and management practices.

They focus on both technical foundations – modern architecture and high-quality data assets – and organizational readiness in parallel, recognizing that technology alone isn't enough:

They prioritize investment in talent development.

They empower workers to use AI through strong ethical guidelines.

They partner externally to bridge skillset and capability gaps.

They prepare citizens to accept and use AI in government services.

The results are compelling:
pioneers are

2.4x

more likely to report AI initiatives exceeding expectations.

3

Several organizational and technological challenges continue to hold back progress

Governments cite privacy and security concerns, strategic misalignment, weak business cases, inadequate infrastructure and ethical considerations as top constraints. Interestingly, the research reveals that perceptions of challenges intensify rather than diminish as deployment progresses.

Pioneers actually perceive these challenges more acutely than followers, demonstrating that deeper engagement with AI reveals its true complexity. This "you don't know what you don't know until you start the journey" phenomenon means that as organizations gain experience, they develop a more sophisticated understanding of implementation barriers and need a sustained focus to overcome them.

4

Governments can accelerate their journey to unlock the potential of analytics and AI

Success requires more than piecemeal initiatives or pilot projects – it demands a comprehensive approach that addresses technology, people, processes and governance simultaneously.

Through our discussions with government leaders in the 14 countries, we found that leading organizations recognize the urgent imperative to act, understanding that digital transformation is not merely an IT initiative but a strategic priority to help deliver on governments' core purpose. They have taken a holistic approach so that the focus is not solely on technology but on preparing workers and citizens to use these tools for maximum public value.



Leading government organizations succeed by mapping out a journey from strategy development, to putting in place the necessary foundational capabilities, to effective execution and value creation.

They do so by:

1

Making a bold strategic commitment to data and AI with executive-level sponsorship, strong business cases and dedicated investment.

2

Building five essential foundations that balance technology and human dimensions:

1 Data and technology:

the foundational platforms (including cloud), modern architecture, systems and high-quality, accessible data assets and products that enable advanced capabilities

2 Talent and skills:

comprehensive digital literacy coupled with dedicated data science and AI skillsets distributed strategically throughout the organization

3 Adaptive culture:

an innovation mindset that embraces experimentation, continuous learning and the ability to evolve rapidly as technologies advance

4 Trust and ethical governance:

building confidence through transparent data practices, robust privacy safeguards and ethical frameworks so that AI systems serve the public good

5 Collaborative ecosystem:

strong partnerships across government, industry and civil society that support interoperability and accelerate innovation and implementation

3

Driving effective execution by creating an action plan to move beyond piloting and proof of concepts (PoCs) to fully implementing analytics and AI solutions.

This holistic approach will help government organizations advance methodically toward the successful implementation of increasingly sophisticated analytics and AI applications.

5

Adoption and scaling of these technologies enables a transformational shift in how governments deliver public value

Our discussions with industry leaders and experts uncovered over 200 diverse use cases and initiatives at various stages of development. These use cases highlight six key sources of value that governments are realizing through data and AI investments:

Productivity and efficiency: reducing costs through operational performance improvements

Employee experience: simplifying tasks to enhance the employee experience and boost job satisfaction

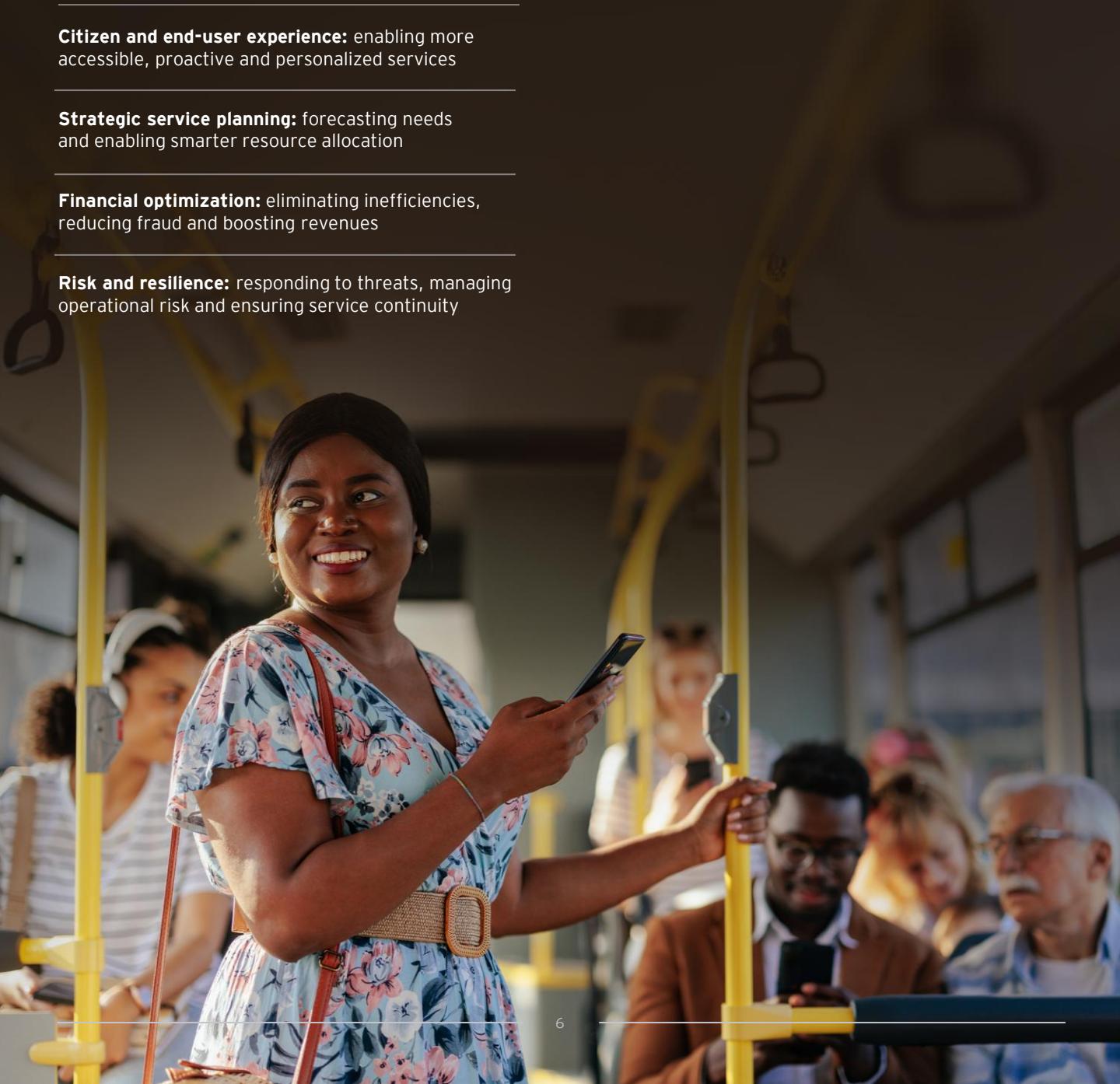
Citizen and end-user experience: enabling more accessible, proactive and personalized services

Strategic service planning: forecasting needs and enabling smarter resource allocation

Financial optimization: eliminating inefficiencies, reducing fraud and boosting revenues

Risk and resilience: responding to threats, managing operational risk and ensuring service continuity

By making a strategic commitment and developing capabilities across all foundations, governments can systematically advance toward increasingly sophisticated AI applications that provide meaningful benefits for citizens, employees and society at large.



Research methodology: capturing global insights

Between July and December 2024, in collaboration with Oxford Economics, the global EY organization conducted research to explore the question: **How can governments leverage data and AI to drive greater public value?**

We surveyed 492 government leaders across 14 countries with significant familiarity or involvement in their organization's data and AI programs. This encompassed roles such as chief executive officer, chief information officer, chief data officer, chief strategy officer, chief AI officer, chief innovation officer, chief operating officer or director of operations, chief technology officer, director general and commissioner.

Diverse functions:

Executive offices	Digital agencies
Home affairs	Economic affairs
Treasury or tax	Health
Social services	
Education	Energy
Regulation	
Defense and intelligence	
Infrastructure and transport	

Australia	Canada	Denmark	Estonia	France	Germany
Netherlands	Italy	Japan	Singapore	South Korea	
United Arab Emirates		United Kingdom		United States of America	

The respondent profile was also carefully designed to provide comprehensive coverage:

Levels of government:

40%

National or federal

25%

State or regional

25%

Local

10%

Public or state-owned entities



To complement the quantitative findings and provide deeper context, 46 in-depth qualitative interviews were conducted, including 38 with public officials, four with academic and policy experts, and four with private sector leaders in the deployment of AI. These interviews provided further insights into the maturity of data and AI adoption, challenges encountered, and leading practices in addressing these challenges.

Advanced AI tools, including EY Large Language Model (LLM), EYQ and Microsoft Copilot, were utilized to synthesize transcripts and extract key findings.

EYQ was employed to process and analyze large volumes of textual data, identifying patterns and themes through natural language processing (NLP) techniques. Copilot assisted in refining these insights by generating summaries and highlighting significant points from the transcripts.

Together, these AI tools enabled efficient and accurate synthesis of qualitative data, facilitating the identification of critical findings and trends.

The following definitions were used in the research to provide consistency across diverse government contexts:

Data and digital infrastructure

The foundational data, digital systems and services that support data storage, processing and communication.

Example: a government cloud computing platform that hosts various public service applications, enabling efficient data sharing between administration departments.

Advanced data analytics

The use of sophisticated techniques and tools to analyze large and complex data sets to uncover insights, predict outcomes and inform decision-making.

Example: using predictive analytics to forecast traffic patterns and enhance public transportation schedules.

AI

The branch of computer science that focuses on creating systems capable of performing tasks such as understanding natural language, recognizing patterns, solving problems, and learning from experience.

Example: an intelligent chatbot used by a city's administration to handle inquiries, provide information on services, and assist residents with requests that helps improve citizen engagement and service efficiency.

GenAI

A subset of AI that creates new content – including text, images, code and other media – based on patterns learned from training data. It possesses the capacity to learn, reason and apply knowledge contextually across diverse domains.

Example: a system that seamlessly integrates with various government departments, such as health care, education and transportation, to autonomously make informed decisions, allocate resources optimally and adapt to new legislation or societal needs without explicit human instruction.

Methodological note:

The survey relies on self-assessment from participating organizations, which is recognized as a potential source of bias. To mitigate this, we cross-validated key findings through the interview process and comparative analysis across regions.

01

Seizing the AI moment: why governments must act now

01

Seizing the AI moment: why governments must act now

In this era where digital transformation is reshaping society, governments face a critical question:

Are they truly prepared to harness data analytics and AI's transformative power to deliver better outcomes for citizens?

As public sector leaders grapple with a perfect storm of challenges and increasingly scarce resources, they stand at a decisive moment. Headlines trumpet the latest technological breakthroughs, such as AI and GenAI, that offer transformative solutions. These technologies aren't just tools for efficiency – they represent the means to undertake a fundamental shift in how governments can deliver public value in the 21st century. When implemented at scale, they can harness and unlock untapped human capacity that allows governments to deliver better on their purpose and improve outcomes for all.

The opportunities are too vast to ignore, but realizing this potential is not easy. A critical implementation gap remains between the promise and the value. Our research shows that a large proportion of government organizations are still at an early stage in the journey to deploy data analytics, particularly AI and GenAI technologies, as several challenges, both real and perceived, are holding back progress.

For government C-suite leaders seeking to navigate this complex landscape, understanding how to implement these technologies effectively is no longer optional – it's imperative for maintaining relevance and delivering the services citizens and businesses increasingly expect.

The time to act is now as the cost of inaction is growing daily. Governments that delay implementation risk widening service gaps, losing public trust, and falling further behind in operational efficiency – ultimately compromising their fiscal sustainability and ability to fulfil their most fundamental missions with already stretched resources. Meanwhile, early adopters are already realizing significant benefits in service delivery, operational efficiency and citizen engagement.

Success requires a dual focus on both digital foundations and organizational readiness. These must be developed in parallel rather than sequentially – not just implementing technologies but simultaneously developing the human capabilities to leverage them effectively. This balanced approach distinguishes our research findings from technology-centric analyses. It emphasizes that true transformation happens by both acquiring and integrating new technologies and fundamentally reimagining how people, processes and technology work together to deliver public value.

This paper offers strategic recommendations for government leaders on how their organizations can unlock the full potential of data and AI to improve their operations and deliver more value for citizens.

Our research provides:

1. Insights into how leading organizations are capturing tangible benefits from data and AI through real-world applications
2. A clear assessment of implementation progress and the persistent challenges that are holding back progress
3. Key lessons from early success stories and leading practices that can inform their strategic approach
4. A practical guide for advancing their organization's data and AI capabilities across all five essential foundations

This paper explores the journey from data foundations to advanced AI capabilities and provides a clear roadmap for governments at every stage of digital maturity, based on the experiences and lessons of organizations that are leading the way.





Inspiring action:

how harnessing data
and AI is enhancing
public value

Inspiring action: how harnessing data and AI is enhancing public value

Most governments understand AI's potential and the urgency of adopting it.

Data analytics and AI are not just helpful tools but essential capabilities that can significantly enhance governments' abilities to tackle an unprecedented convergence of challenges – resource constraints, workforce pressures, lagging productivity, complex geopolitical and societal issues, and eroding levels of trust – all while people's expectations and demands on service grow.

Our survey confirms that government leaders understand the opportunities of AI. Just 4% of survey respondents say their organization has no plans to implement it as part of their data and digital transformation efforts.



63% agree or strongly agree that AI has the potential to improve their organization's services.



64% believe widespread adoption of AI will lead to significant cost savings and staff redeployment.



58% believe GPS organizations need to hasten the pace of data and AI adoption.

They are similarly positive about the potential for Gen AI:



61% agree or strongly agree that GenAI will transform working methods in government and the public sector in the next five years.



54% agree or strongly agree that GenAI will lead to significantly improved public services customized to citizens' needs.

The survey findings show that organizations already deploying data analytics and AI are experiencing widespread benefits across multiple areas: enhanced citizen experiences through improved access and personalized services; improved monitoring and efficiency savings; stronger security with reduced fraud and errors; improved workforce productivity and satisfaction; and more informed, data-driven decision-making.

Figure 1: Tangible benefits delivered from governments' deployment of data analytics, AI or GenAI solutions [Benefits ranked in top 3, % respondents]

Enhanced citizen experience (i.e., personalized, streamlined experiences)



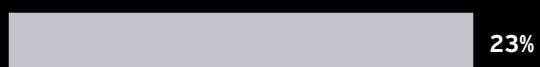
Improved monitoring and evaluation



Cost and efficiency savings



Reduced risk, fraud and error



Improved workforce satisfaction and professional development of employees



Improved security



Improved insights to inform decision-making and quality decisions



Enabled prevention and early intervention

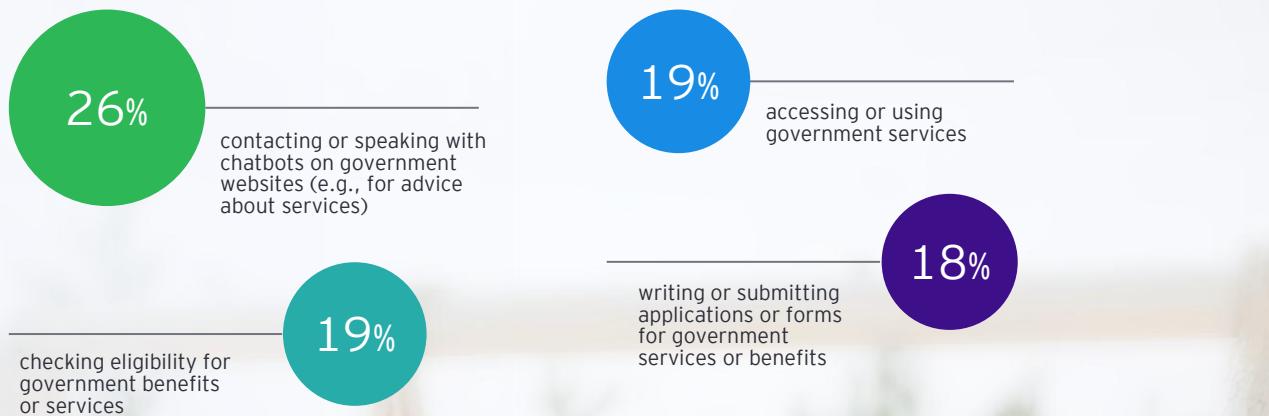


n = 285. Respondents who are deploying data analytics, AI or GenAI solutions either in parts or fully across their organization.

Citizens' acceptance of and trust toward the use of analytics and AI in government services is crucial for unlocking many of these benefits. Between December 2024 and January 2025, EY teams undertook the AI Sentiment Index Study,¹ which surveyed a representative sample of 15,000 citizens across 15 countries.

The findings show that citizens are embracing AI in their daily lives and are comfortable with many applications. Forty-five percent have used AI in government services in the last six months, many of which aim to improve the citizen experience.

This includes:



Unlocking public value through real-world analytics and AI applications

Our research uncovered over

200 diverse use cases and initiatives at various stages of development that provide a range of benefits.

These concrete examples show how data analytics and AI directly address the challenges governments face, delivering value across six key dimensions.

See the appendix for a shortlist of use cases.



Figure 2: Six value drivers

Value driver	Description	Sample use cases	Case example
Productivity and efficiency	Responding to resource constraints and rising service demands by automating routine tasks, optimizing workflows and enhancing decision-making to improve the speed, accuracy and efficiency of government services and internal processes.	AI-powered task mining and process intelligence tools identify operational inefficiencies and suggest improvements. Analytics tools integrate and analyze large data sets for more informed decision-making and resource allocation.	In a US city, AI tools that map business processes across systems and applications were used to analyze invoice processing workflows, automating the process and saving around 1,500 manual work hours annually. ²
Enhanced employee experience	Addressing talent and skill shortages by augmenting capabilities, reducing administrative burden, creating more rewarding work environments, and supporting learning and development.	GenAI tools, including LLMs, automate administrative tasks (such as report generation, meeting minutes and synthesizing large volumes of data), retrieve information in real time and respond accurately to queries. GenAI tools enhance employees' skill development by providing personalized learning experiences, streamlining content creation, curating courses and offering real-time support.	In the UK, an AI-powered assistant helps customer advisors quickly locate and share reliable information for citizens, increasing response times by 50% (down to four minutes) and making advisors twice as confident about giving advice. ³
Transformed citizen experience	Meeting heightened citizen expectations through personalized, proactive, responsive and accessible services that build trust and satisfaction, while enabling data-driven insights that continually improve services.	AI-driven "digital humans" offer enhanced service accessibility through multilingual support, speech-to-text features and assistance in navigating services. Analyses of operational data for emergency services (e.g., 911 call data and police staffing) enable a reduction in response times.	A social security authority is increasing citizen access to GenAI chatbots for resolution of inquiries 24/7. This has improved the speed and quality of response to users, while channelling more complex requests to business advisors. Six million users are already using the chatbot, and the ambition is to achieve 100% integration by 2027. ⁴
Enhanced strategic service planning	Managing increasing service demands through AI and predictive analytics tools that forecast service or maintenance needs, allowing preventative interventions, smarter resource allocation and better service design.	AI systems improve the accuracy of forecasts for energy demand, transport usage and infrastructure project costs. Predictive analytics using citizen data enables the implementation of system-wide preventative service interventions and enhanced resource allocation.	A state government department piloted the use of AI tools to improve the accuracy of cost and time estimates for large-scale infrastructure projects over US\$160 million. The department aimed to reduce the uncertainty and financial risks associated with project overruns. ⁵
Improved financial stewardship	Tackling resource constraints by eliminating inefficiencies, reducing fraud, improving financial reporting, boosting revenues and optimizing budget management.	Real-time data analytics and AI tools improve the detection and prevention of tax evasion and noncompliance. Predictive analytics help forecast revenue and expenditure trends, enabling more accurate budgeting and better use of public funds.	A tax authority uses AI models to proactively identify employers with superannuation underpayments risks, achieving a 90 per cent success rate and raising around \$295 million in liabilities. ⁶
Strengthened risk mitigation and resilience	Responding to operational continuity issues, cybersecurity threats, regulatory pressures and crisis scenarios with advanced monitoring, prediction and response (including testing and practice drills) capabilities.	AI tools such as machine learning (ML), NLP and predictive analytics are used to detect, diagnose and resolve IT incidents. AI can detect anomalies and potential threats to critical infrastructure in real time, allowing for swift responses to prevent disruptions.	A French region adopted a sovereign GenAI model for IT incident resolution, minimizing the volume of IT support tickets and reducing troubleshooting time from up to 12 hours to just two to five minutes. ⁷

See the Appendix for a detailed description of use cases and related value drivers.

These outcomes are achieved not through technology alone but through a holistic approach integrating data assets, digital platforms and AI capabilities.

Governments with mature data foundations – including well-governed data assets, modern data architecture and strong data literacy – are best positioned to extract maximum value from AI technologies.



The pioneers' formula: building foundations for AI success

03

The pioneers' formula: building foundations for AI success

Despite enthusiasm for analytics and AI, we found that implementation progress varies significantly across government organizations.

Governments need to accelerate their data and AI plans to deliver enhanced value for citizens and businesses. To determine the best way forward and increase adoption, it's crucial to understand where the gaps exist and plan to address them.

A robust data and digital infrastructure lies at the foundation of all successful analytics and AI implementations. By swiftly collecting, integrating, storing and securing the vast amounts of data held across their systems, and implementing responsible guardrails for its use, governments can leverage advanced analytics and AI to address the challenges they face head-on.

Our research found a stepwise progression in implementation, with greater deployment of data and digital infrastructure, but significantly lower adoption of AI and GenAI (see Figure 3).

% at deployment stage

64%

Data and digital infrastructure

GPS organizations are most advanced in establishing their foundational infrastructure, suggesting they understand the need to focus on strong digital and data foundations before integrating more advanced technologies.

41%

Analytics capabilities

While less advanced than infrastructure, analytics adoption is progressing as organizations build on their data foundations.

26%

AI implementation

Most organizations (71% combined) are still in the planning or early implementation phases, showing a significant gap between perception of value and full deployment.

12%

Gen AI adoption

The newest technology shows the lowest implementation rates, with 44% in planning stages and 23% not planning to implement.

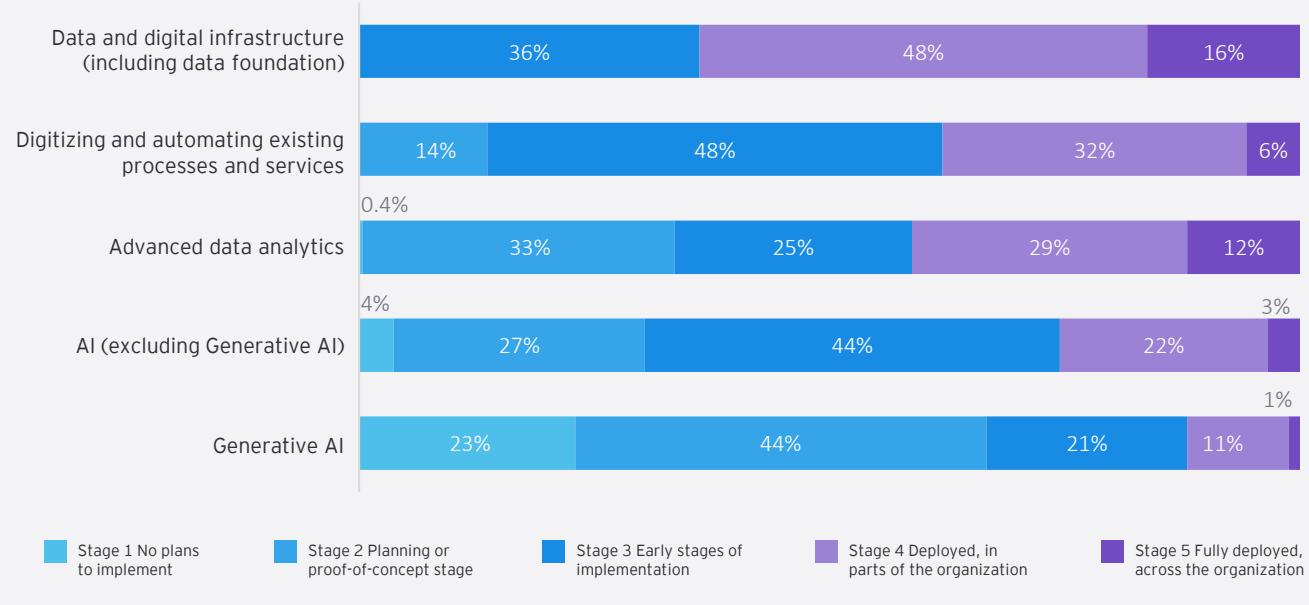


This cautious approach to GenAI likely reflects concerns about the need to understand and manage the inherent risks, including the potential for systems to produce biased or incorrect outputs and cause unintended harm to citizens through a lack of oversight and accountability.

Our survey showed that

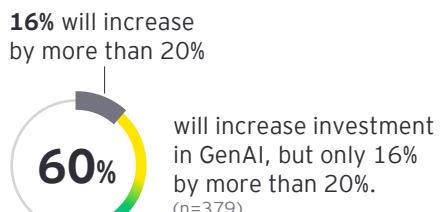
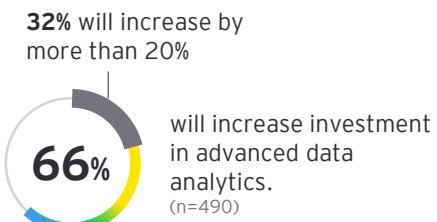
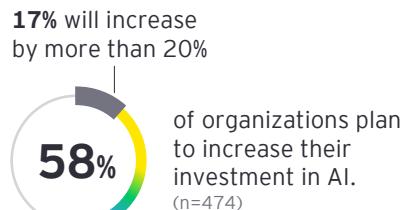
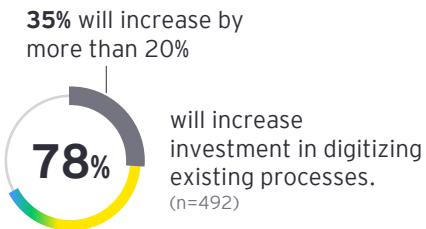
65% of respondents **agree that GenAI adoption is progressing too quickly**, outpacing regulatory guardrails – highlighting the desire for a more informed and balanced approach so that the benefits of GenAI are realized without compromising safety and ethical standards.

Figure 3: Which best describes your organization's current progress in the following aspects of your data and digital transformation?



This stepwise progression reflects a logical maturity path as organizations gradually build capabilities while managing risk and proving value along the way.

Investment priorities for the next three years confirm this measured approach:



Pioneers set the pace for change

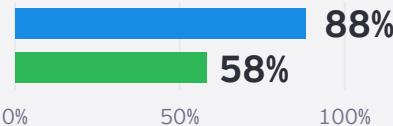
While this measured approach is evident across the sector, our research identified a cohort of “pioneers” – organizations that are significantly outpacing their peers not just in implementation progress but in the strategic sophistication of their approach.

See sidebar:
How we identified the pioneers.

Pioneers distinguish themselves through their strategic emphasis on building strong foundations before rushing to implement advanced AI technologies:

■ Pioneers ■ Followers

88% of pioneers versus 58% of followers **have deployed data and digital infrastructure.**



How we identified the pioneers

To better understand the organizations that are leading the way in digital and data transformation, we segmented our survey of 492 government leaders based on several components of successful practices for enabling business strategies:

01

Strategic support for data and digital initiatives, in terms of:

- Understanding the need to move quickly
- Developing a convincing business case based on a public good benefit

02

Comprehensive planning for developing data and digital infrastructure

03

Creating robust reporting metrics to measure progress and learn as they go

04

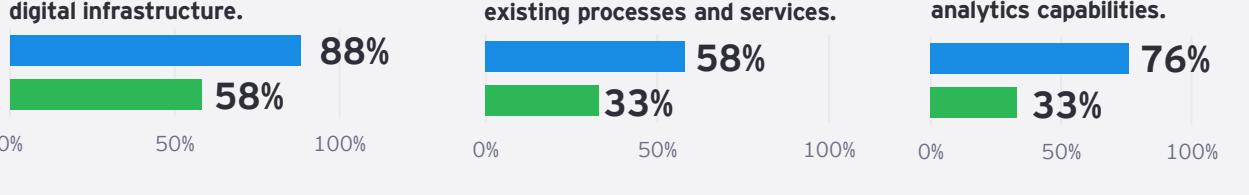
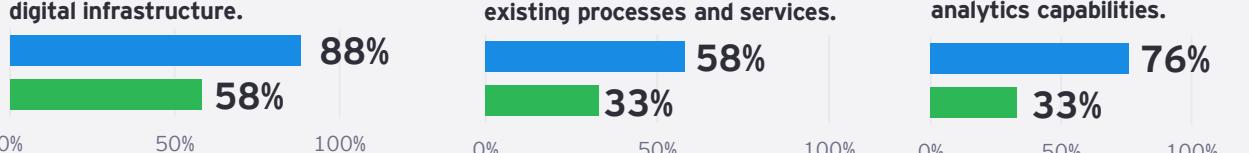
Implementation of different measures to prepare the workforce

We created an index based on a total score in each of these areas, with each component weighted equally, normalized from 0 to 100.

The segmentation revealed two distinct groups:

The top 20% of survey respondents are classified as **pioneers** that are further advanced in deploying digital solution.

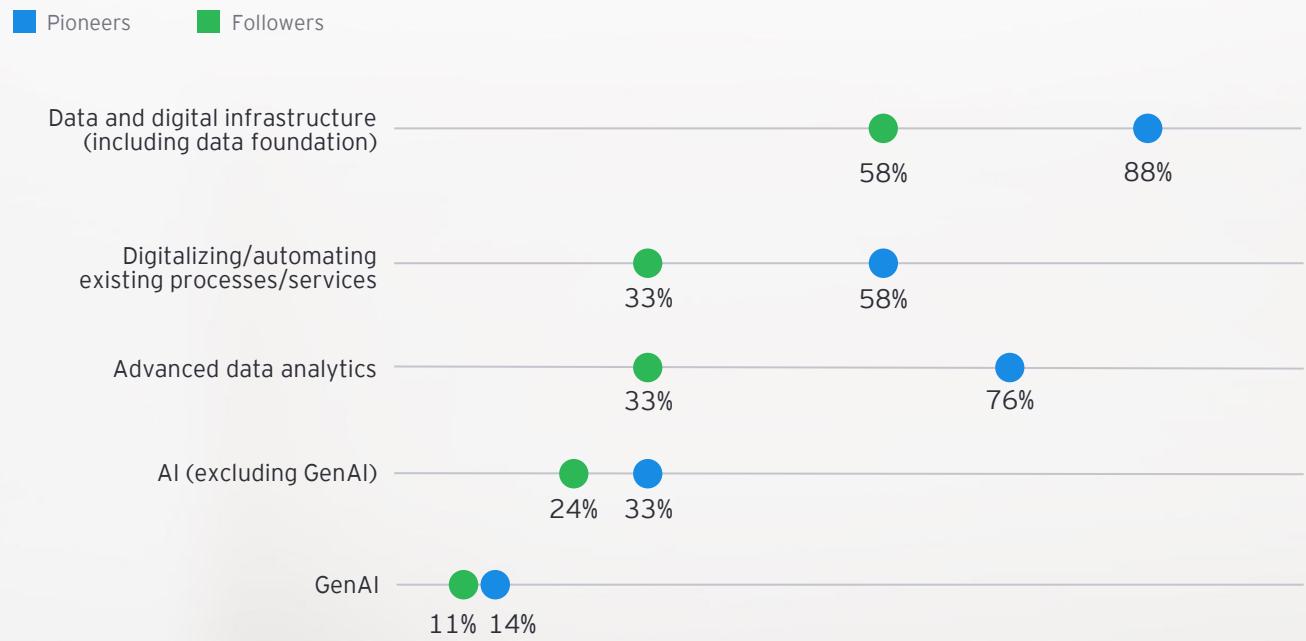
The remaining 80% are classified as **followers**.



However, the gap narrows when it comes to deploying AI and GenAI. Rather than following the hype and racing to adopt the latest technologies, pioneers prioritize the essential groundwork that will enable successful AI implementation later (see Figure 4.)

Figure 4: Which best describes your organization's current progress in the following aspects of your data and digital transformation?

(% responding "Stage 4: deployed in parts of the organization" and "Stage 5: fully deployed across the organization")



Number of respondents = 492



Pioneers are pressing ahead with investments

over the coming three years that reflect this logical implementation path: building a robust digital infrastructure and data foundation, process digitization and analytics – while setting themselves up for better deployment of AI and GenAI down the line.

Pioneers are planning to invest in:

█ Pioneers █ Followers

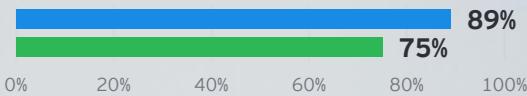
Data and digital infrastructure:

91% versus 51% of followers, with 37% increasing their investment by more than 20%, versus 7% of followers
(n= 98 for pioneers, 394 for followers)



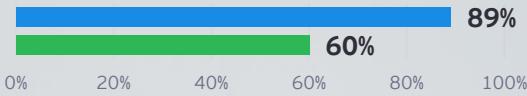
Digitizing existing processes:

89% versus 75% of followers
(n= 98 for pioneers, 394 for followers)



Advanced data analytics:

89% versus 60% of followers, with 64% increasing their investment by more than 20%, versus 23% of followers
(n= 98 for pioneers, 392 for followers)



But to a lesser extent in:

AI (excluding GenAI):

59% versus 58% of followers
(n= 95 for pioneers, 379 for followers)



GenAI:

68% versus 58% of followers
(n= 78 for pioneers, 301 for followers)



The sequencing of this approach makes strategic sense. Prioritizing digitization provides data that is clean, structured and well prepared for more sophisticated applications. This helps avoid the higher costs and complexities associated with implementing AI without first establishing robust data governance.

Gradually progressing from digitization to AI allows governments to build the necessary skills while learning how to mitigate risks associated with more complex AI and GenAI, which necessitate strong data governance and ethical considerations.

Additionally, a well-established digital infrastructure facilitates easier compliance with data security and regulatory standards, protecting sensitive information and ensuring AI applications meet legal requirements.



This initial focus has paid off for pioneers that have developed a more effective digital and data foundation than followers across several dimensions (see Figure 5 and 6). Pioneers have also made faster progress in embedding data capabilities organization-wide, rather than just in specific teams and departments.

This helps maintain high standards of data quality and consistency, breaks down organizational silos, provides a unified approach to data governance and regulatory compliance, allows for scalable and flexible data management solutions, and ultimately leads to more cohesive and aligned strategies that benefit the entire organization.

Figure 5: How effective is your organization's data infrastructure and governance in the following areas?
% responding "Highly effective" or "Effective"

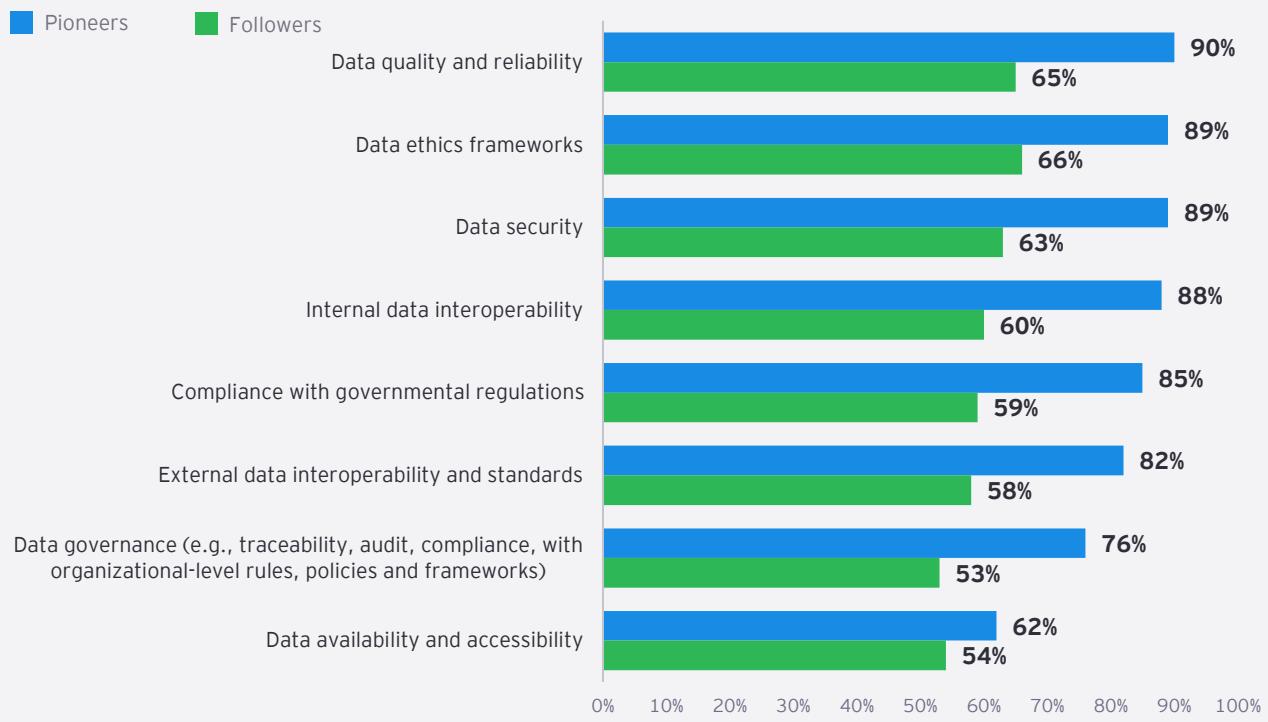
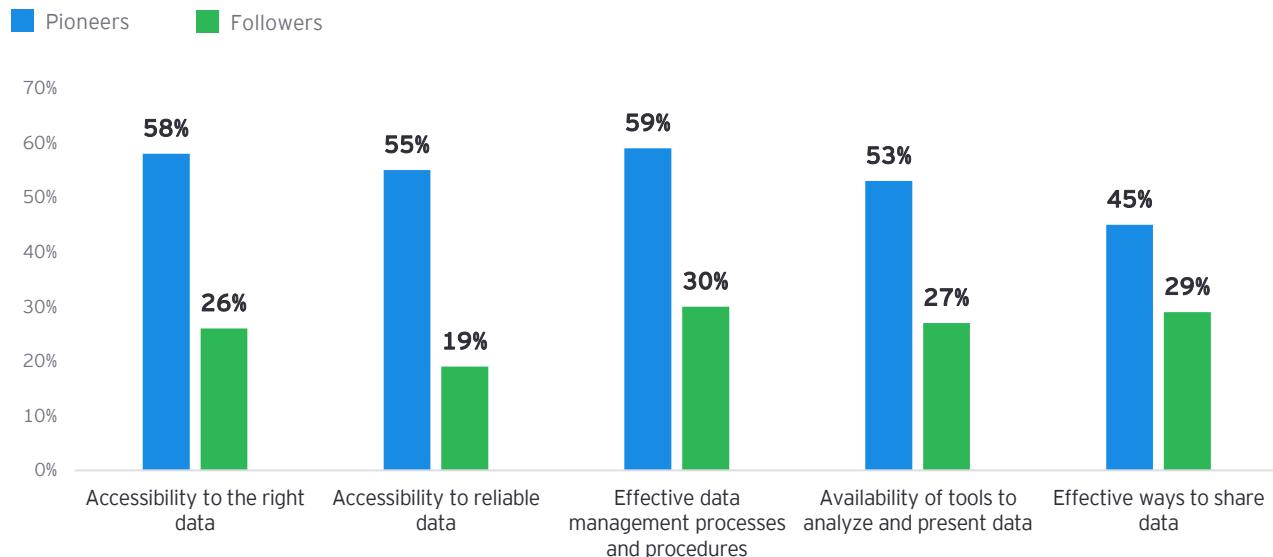


Figure 6: To what extent are the following data capabilities embedded in your organization?
% responding organization-wide



Pioneers succeed by developing both technical capabilities and organizational readiness in parallel.

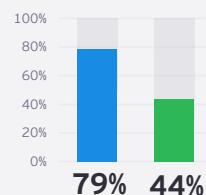
What truly distinguishes **pioneers** is their balanced approach to implementation, addressing both technological foundations and human dimensions simultaneously.

Pioneers

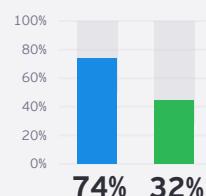
Followers

They prioritize talent development.

79% of pioneers say they have sufficient skillsets to drive data and AI implementation, versus 44% of followers.

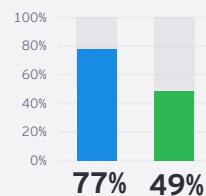


74% of pioneers plan to increase their investment in data and digital skills among their workforce in the next three years, versus 32% of followers.

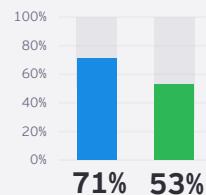


They leverage external partnerships, particularly with large technology companies and other private sector organizations.

77% of pioneers have collaborated with large technology companies to advance their digital and data transformation, versus 49% of followers.

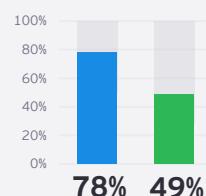


71% of pioneers have collaborated with other private companies, versus 53% of followers.



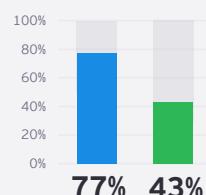
They address ethical considerations and regulatory compliance, such as issues of bias, privacy and transparency.

78% of pioneers have developed strong guidelines for employees on the ethical use of data and AI, versus 49% of followers.

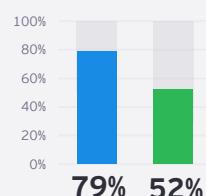


They engage with citizens and understand the importance of public trust.

77% of pioneers actively prepare citizens for digital services through digital literacy, training and awareness campaigns, versus 43% of followers.



79% of pioneers agree or strongly agree that citizens are ready to transition to new, AI-driven services, versus 52% of followers.



This groundwork yields results.

We found that by addressing the technical and human dimensions of change, pioneers reap the highest rewards of this transformation:

Pioneers are

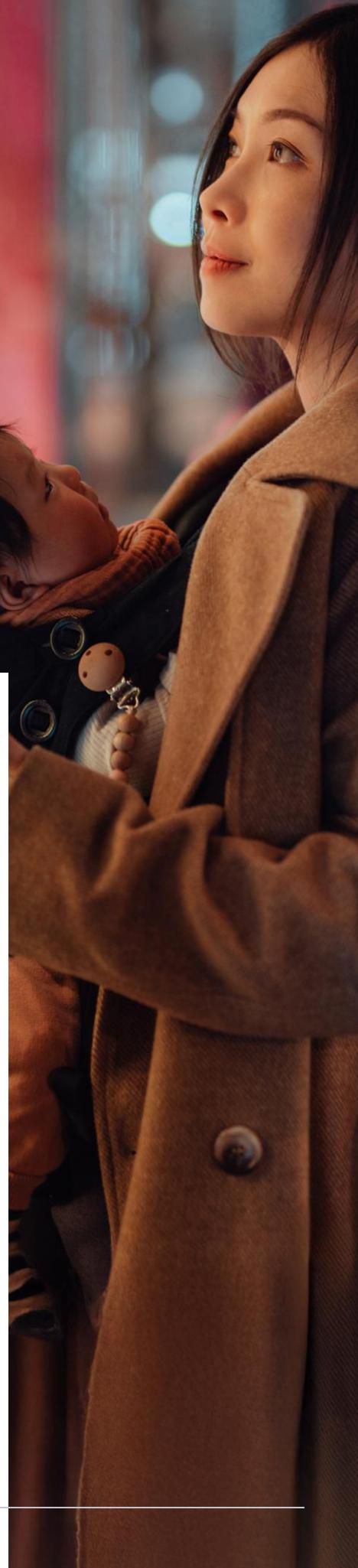
2.4x

more likely to rate the success of their AI initiatives as somewhat or significantly higher than expected (62% of pioneers versus 26% of followers).

90%

of pioneers believe their performance has "somewhat" or "significantly" outperformed their public sector peers in their country on data and digital infrastructure, versus 48% of followers.

This momentum is likely to **widen the performance gap** between the two groups, unless those that are behind take prompt action.



Key takeaways

1 Address the implementation gap strategically:

With over 60% of organizations recognizing AI's potential but only 26% having deployed it, assess your organization's current deployment status and develop a realistic implementation roadmap that prioritizes foundational capabilities.

2 Follow a structured maturity progression:

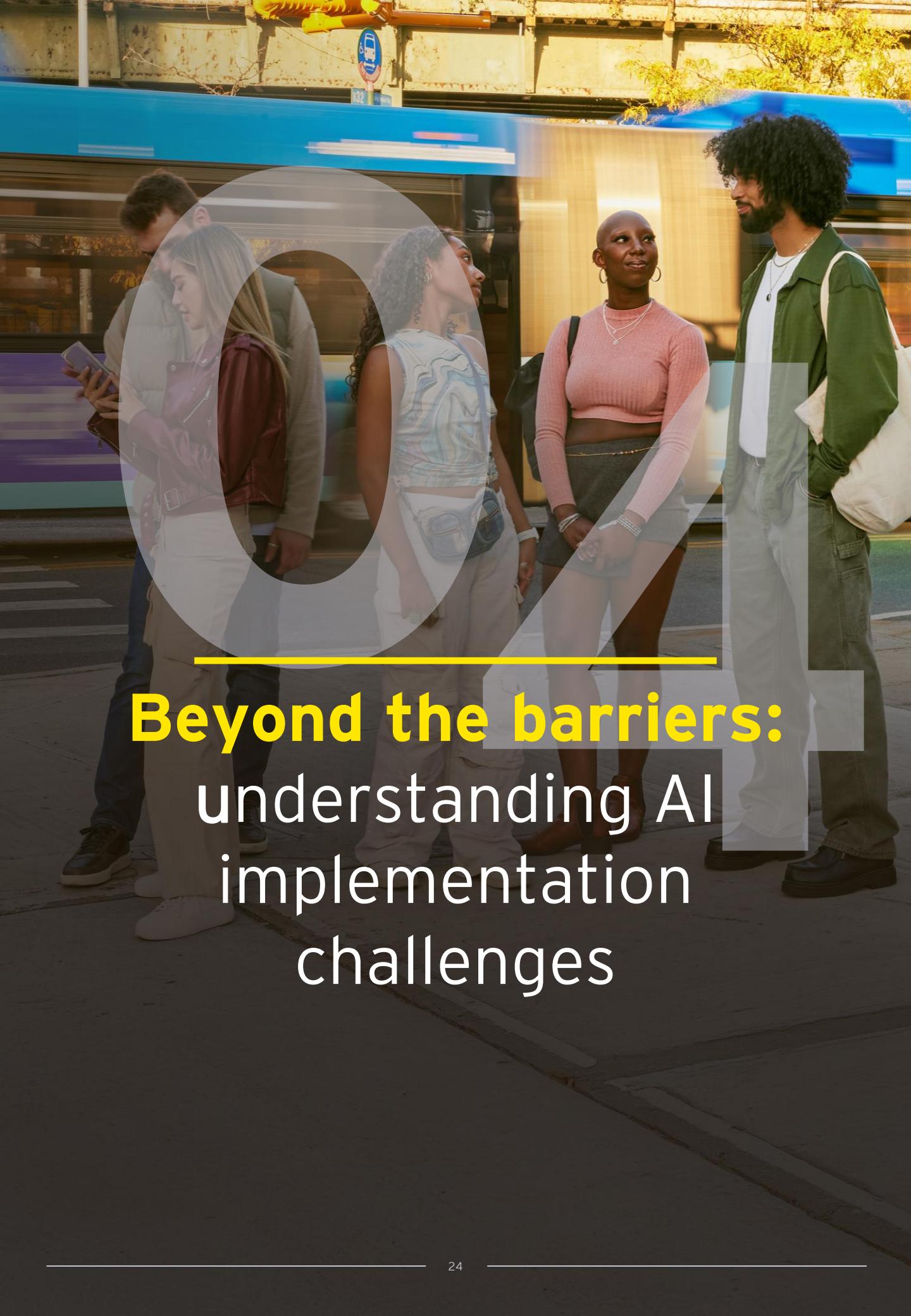
Organizations should follow a logical maturity path from developing robust infrastructure and data capabilities to analytics, to AI and GenAI. Where does your organization stand on this journey? Consider which foundational investments need strengthening before advancing to the next stage.

3 Invest in parallel development:

Pioneers succeed by simultaneously developing technical infrastructure and organizational readiness. How can you balance your investments across technology, talent and governance to avoid progress bottlenecks?

The experience of these pioneers provides a strategic roadmap for other organizations to follow.

While the pioneers demonstrate what's possible, most organizations continue to face significant challenges that impede their progress. Understanding these barriers is essential to developing effective strategies for overcoming them.



Beyond the barriers: understanding AI implementation challenges

04

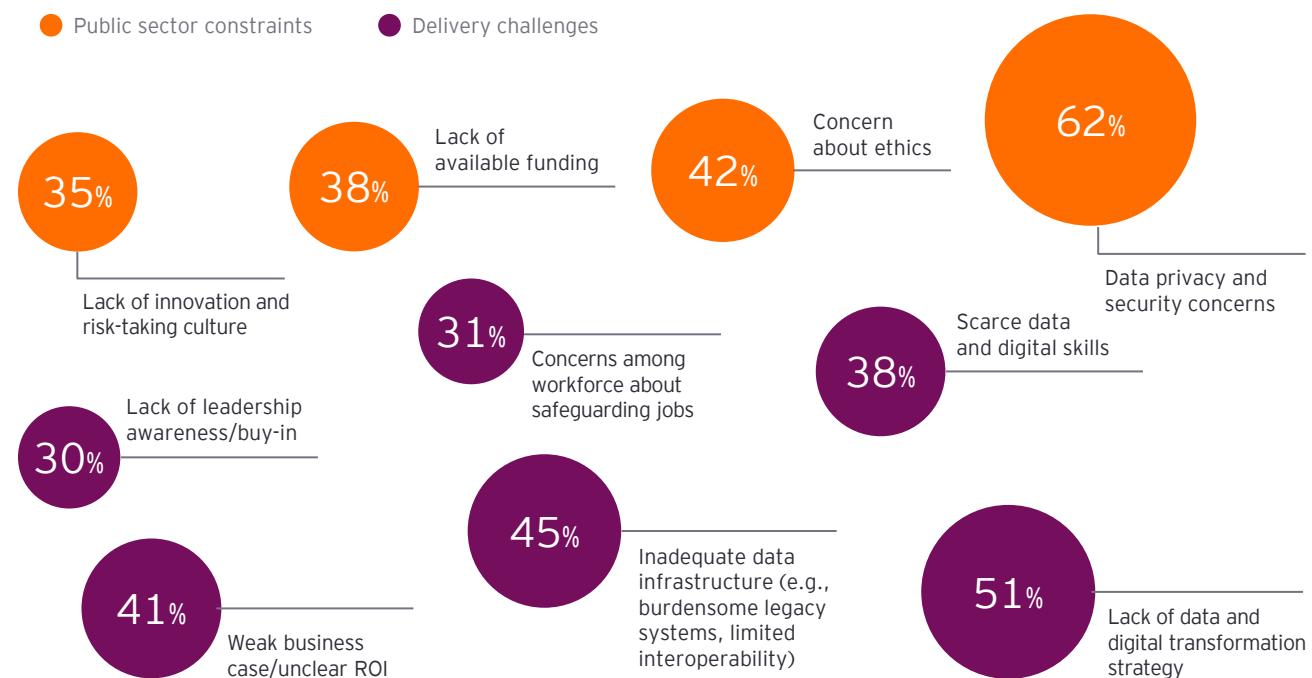
Beyond the barriers: understanding AI implementation challenges

Implementing data analytics, and AI and GenAI technologies, creates a challenging paradox for government organizations.

While they clearly recognize the transformative potential, they face persistent barriers that impede progress. Our research identifies several interconnected challenges across strategic, technical and organizational dimensions that must be addressed for successful implementation (see Figure 7). The most significant constraints include privacy and security concerns (cited by 62% of respondents), lack of strategic alignment (51%), weak business cases with unclear returns (41%), inadequate infrastructure (45%) and ethical considerations (42%).

Understanding these barriers – and how pioneers overcome them – is essential for organizations seeking to accelerate their AI journey.

Figure 7: To what extent do the following internal factors constrain your organization's current ability to adopt data and digital solutions? (% high and very high constraint)



One of our most revealing findings is how perceptions of challenges evolve throughout the implementation process. Rather than diminishing over time, these challenges often intensify as organizations gain deeper experience with AI technologies.

This "you don't know what you don't know" phenomenon suggests that organizations discover new complexities as they advance in their implementation journey, implying the need for sustained focus throughout the journey (see Figure 8).

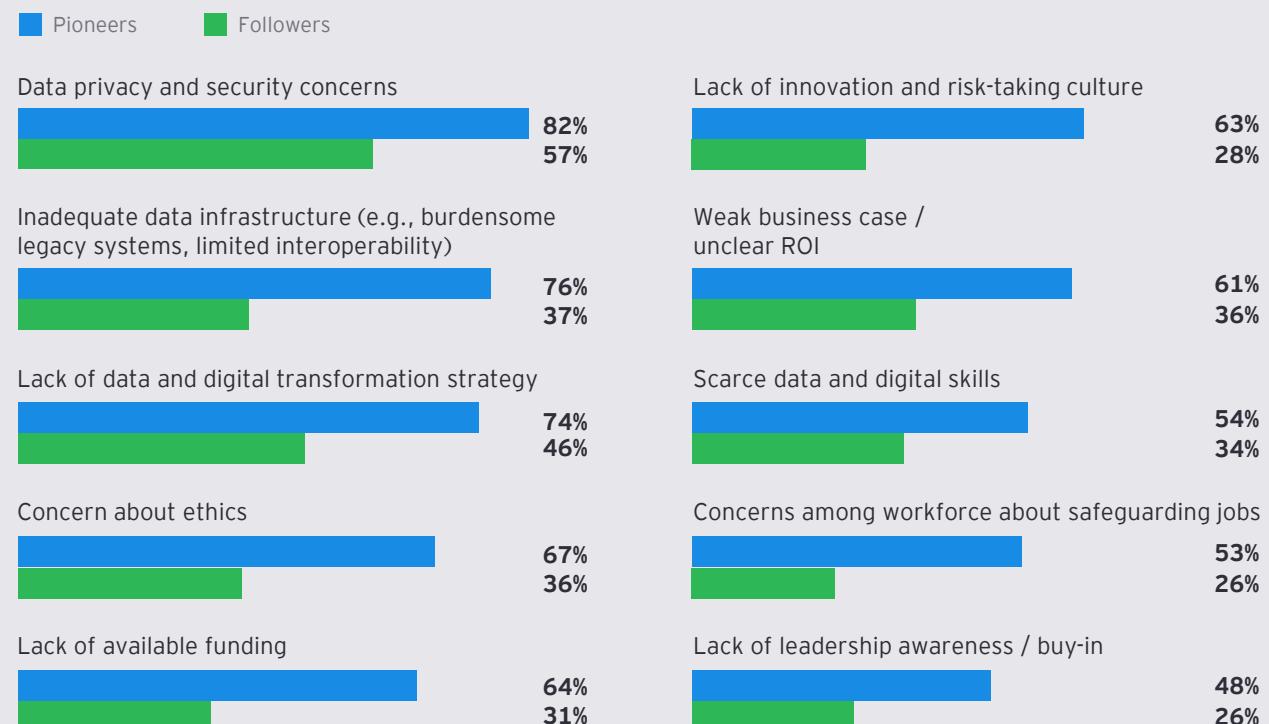
Figure 8: Top five challenges in implementing data analytics, AI or GenAI across implementation stages. % responding "High constraint" and "Very high constraint"

	Planning or proof-of-concept	Early stages of implementation	Deployed, either in parts or fully, throughout the organization
Data privacy and security concerns	62%	59%	62%
Lack of data and digital transformation strategy	49%	50%	55%
Weak business case / unclear ROI	42%	42%	45%
Inadequate data infrastructure (e.g., burdensome legacy systems, limited interoperability)	41%	41%	49%
Concern about ethics	39%	44%	46%

Most strikingly, pioneers perceive these challenges more acutely than followers, further supporting the idea that deepening engagement with AI uncovers greater complexity.

Organizations with advanced implementation have developed a more sophisticated understanding of what effective implementation truly requires, while those with less experience may underestimate the challenges ahead.

Figure 9: To what extent do the following factors constrain your organization's current ability to adopt data and digital solutions? (% high and very high constraint)



Understanding the challenges

Privacy and data governance

62%

of respondents rated data privacy and security concerns as high or very high constraints.

Protecting citizen data represents the single most significant constraint identified in research, with 62% of respondents rating privacy and security concerns as high or very high barriers to adoption.

Government organizations face unique challenges in this domain. Unlike private companies, they hold vast amounts of legally protected information and operate under strict legislative frameworks. As Keisuke Murakami, Director General, Digital Agency, Japan explained, data sharing between departments creates particularly complex scenarios:

"The problem arises as to whether it is acceptable to give the Board of Education the personal data of the child that is held by the Department of Social Welfare. This sort of issue needs to be solved one by one diligently."

These privacy barriers are reinforced by citizen concerns, with the EY AI Sentiment Index Study⁸ revealing that 67% of citizens express caution about governments using AI to collect their data.

Leading organizations address these challenges by establishing comprehensive data governance frameworks that specify permissions, access controls and usage limitations for every data asset. They create transparent data usage policies in plain language that citizens can easily understand and they implement privacy-by-design principles throughout the development process. Many also develop sophisticated anonymization and pseudonymization techniques that protect sensitive personal information while still enabling valuable analytics.

Strategic alignment of data and AI initiatives

51%

cite the lack of a data and digital transformation strategy as a barrier to adopting digital and data solutions.

30%

of respondents cite the lack of leadership awareness/buy-in as a constraint.

Many government organizations fail to align their data and AI strategies with their broader mission, with 51% citing the lack of a coherent digital transformation strategy as a significant barrier.

Too often, initiatives focus on the tools themselves rather than the strategic outcomes they should enable. This technical orientation fails to engage leadership, with 30% of respondents identifying a lack of executive awareness or buy-in as a constraint.

As a senior public official in the Danish Tax Authority advises:

"Ultimately, make sure you have some sponsors on the executive board. At least someone who understands the value you could create on top of these solutions, because otherwise, it's going to be really difficult."

This leadership gap often manifests as excessive risk aversion. As a senior public official of a large public IT service provider in Germany candidly observed: "[The] administration is so risk-averse that it really makes you shudder. For over 20 years, we have promoted people to management positions who have made no mistakes ... It is a complete focus on the risks, not on the opportunities."

This cautious approach creates particular challenges for scaling successful pilots, where ownership and accountability become critical.

A senior public official from the Government of Canada described this implementation bottleneck: "The challenge is, once you develop the use case and you've proved the hypothesis, actually getting it into production, because somebody has got to own it, and somebody has got to maintain it."

Leading organizations overcome these strategic challenges by creating clear AI visions that explicitly link technology initiatives to mission outcomes and public value. They secure executive-level champions who understand both the technology and its strategic potential, establish governance structures with clear accountability for scaling successful initiatives, and develop metrics that demonstrate both short-term wins and long-term transformational impact.

45%

of respondents consider inadequate digital and data infrastructure a significant constraint to adopting new technologies.

Legacy systems, insufficient processing capacity and interoperability problems represent significant barriers to progress, with 45% of respondents identifying inadequate data infrastructure as a major constraint.

The challenge of modernizing these systems while maintaining operational continuity creates particular complexity. As Stephen Burt, Chief Data Officer for the Government of Canada, explained: "The biggest implementation challenge is around legacy systems... modernizing them ... is a complicated multi-stage project that can go on for several years because you have to keep operating while you're fixing."

This modernization imperative often competes with executive enthusiasm for more visible AI applications, creating tension between foundational work and advanced capabilities. Sue Bateman from the UK's DEFRA articulated this challenge: "Everyone has become excited by the potential of generative AI, including senior leaders. There is not the same level of interest and understanding in foundational data investments. We are struggling to deploy AI at scale, because the lack of strong foundations is holding us back."

The quality of underlying data emerges as a critical factor in AI performance. Yoon-Seok Ko from Korea's National Information Society Agency shared the agency's analysis of AI system failures: "It's very painful when you talk about data quality because you can finish data collection and processing in around six or eight months. But inspection takes at least another eight months. We analyzed hallucinations or biases from AI services, and we found out 70% or 80% of those biases and hallucinations came from wrong data or low-quality data sets."

Beyond technical constraints, organizational data silos create persistent barriers to enterprise-wide usage. Dr. Ian Oppermann from Australia's ServiceGen emphasized this challenge: "What was increasingly clear is that it's great having these strategies, but if we can't move the data around inside government, it doesn't really matter. If you can't get the blood into the organ, the organ doesn't work." These silos often stem from cultural factors as much as technical limitations, with departmental ownership creating resistance to broader data sharing. As one deputy minister from a welfare agency observed: "We have a CDO who is trying valiantly to figure out how to get access to the data ... but that continues to be challenging because programs think they own the data, and even if you could get access to it, you can't use it because of legislation."



Detailed planning is needed to address these challenges from the outset. But as our survey shows, there is still a significant proportion of organizations that have work to do in strengthening their data foundation, data management and sharing, processing and storage,

and privacy and security practices (see Figure 10). Organizations will need to prioritize these capabilities as they move forward with data analytics and AI implementation.

Figure 10: To what extent has your organization created a plan regarding its data and digital infrastructure for the next three years?

% of respondents

■ To a small extent ■ To a moderate extent ■ To a large extent

Strengthen our data privacy practices



Enhance our data processing and storage resources



Increase our investment in our data foundation



Ensure more cyber-resilient infrastructure



Improve the effectiveness of our data management, processes and procedures

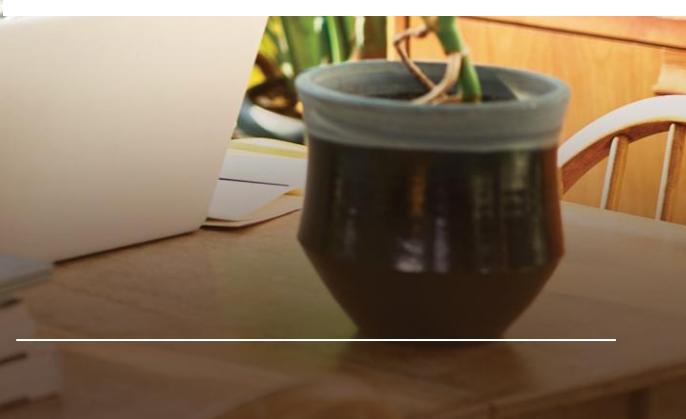


Improve the data sharing/integration within our organization



Successful organizations address infrastructure challenges through incremental modernization approaches that balance immediate needs with long-term goals.

They develop comprehensive data catalogs and metadata management systems that make information discoverable, implement quality frameworks with clear standards and validation processes, create cross-departmental data sharing agreements that address both legal and cultural barriers, and invest in cloud-based platforms that provide the scalability needed for advanced analytics.



42% mentioned ethical concerns about the use of personal data.

65% agree that GenAI adoption is outpacing regulatory guardrails.

The adoption of analytics and AI raises crucial ethical questions that must be addressed, with 42% of respondents citing concerns about personal data use and 65% agreeing that GenAI adoption is outpacing necessary regulatory guardrails.

Public trust in government AI lags other sectors

The EY AI Sentiment Index Study, which surveyed over 15,000 citizens across 15 countries between December 2024 and January 2025, shows that only 39% trust governments to manage AI, while 34% express distrust – the highest rate among all sectors.

AI's rapid rise and extensive media coverage have helped fuel citizen anxiety.

Key citizen concerns include:

 75% AI-generated misinformation

 67% AI being uncontrollable without human oversight

 64% AI being trained on personal data without consent

 59% AI possibly negatively impacting vulnerable individuals

 58% Lack of accountability for harmful AI use

While citizens are coming into contact with AI to access government services, they become wary when AI handles personal data or is used to make decisions typically reserved for humans. For instance, while 60% are comfortable with AI preventing crime, only 45% are comfortable with AI making legal decisions. In health care, 57% support AI predicting health issues, but only 37% trust AI to act as a medical practitioner.

Despite these concerns,

53%

believe AI is having a positive impact on their day-to-day life.

For more information, see Transform human potential in an AI world | EY - Global.



In government contexts, where algorithmic outputs can significantly impact citizens' lives, these ethical considerations take on particular importance. Trust that systems are safe, secure, well governed and aligned with societal values becomes essential for successful adoption. Our research shows this trust remains fragile, with only 39% of citizens expressing confidence in governments' ability to manage AI appropriately, while 34% actively distrust government AI – the highest distrust rate among all sectors.

For many public organizations, the risks associated with unreliable AI outputs still outweigh potential benefits. As Yoon-Seok Ko explained: "The AI service which helps govern the nation? No, we are not going to have that kind of AI service yet. Even though 0.0000001%, there's still a possibility that it could be wrong. Government really has to have integrity in its services."

This creates tension between innovation and caution, as a senior public official in Canada described: "You don't want to launch something that is biased, unethical or could potentially provide incorrect information. This creates a significant caution to ensure that everything we do is done right ... How do you balance caution with opportunity? I think that's the problem state."

The "black box" nature of advanced AI models creates particular challenges for transparency and accountability. Dr Shen Hwee Chua, Chief Data Officer in Singapore's Energy Market Authority, highlighted this explainability problem: "Traditional regression methods with a fixed set of parameters and coefficient outputs are easy to explain. However, when we move to more complicated models, the explainability falls and ability for us to explain the output from a black box becomes challenging."

Leading organizations build confidence and address ethical concerns by developing clear AI ethics frameworks with dedicated oversight committees, implementing model explainability techniques and comprehensive documentation standards, conducting regular bias audits and impact assessments, creating citizen engagement programs that build digital literacy, and maintaining appropriate human oversight for high-impact decisions.



Bureaucratic challenges and funding constraints

41% cite weak business cases and unclear ROI as a constraint.

59% find it difficult to justify AI investments due to unclear returns.

Government funding models and high levels of bureaucracy often create significant barriers to AI adoption, while the frequently speculative nature of projected benefits makes securing investment difficult. 41% of respondents cite unclear ROI and weak business cases as constraints, while 38% identify a lack of available funding as a major limitation.

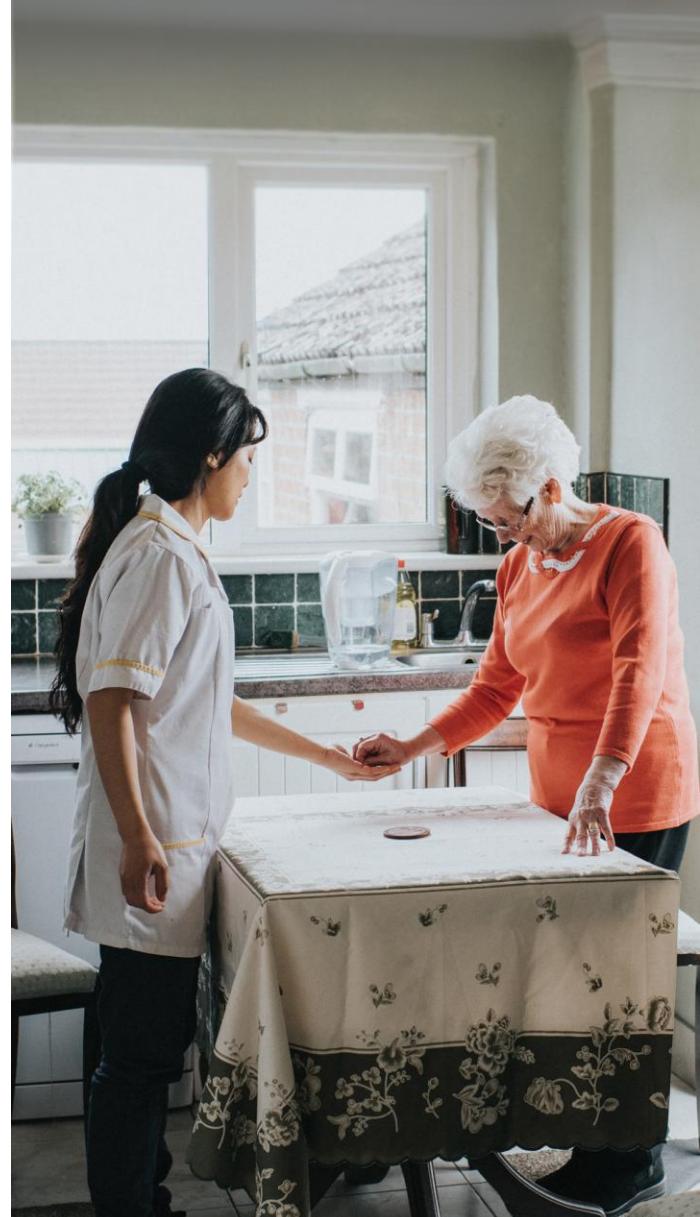
38% cite a lack of available funding as an important constraint to adopting data and digital solutions.

Traditional public sector financial models present particular challenges for AI initiatives. The experimental nature of AI development creates tension with rigid public sector funding approaches.

Additionally, because funding typically links to specific agency programs rather than enabling technologies, AI investments often take a subordinate role that limits their strategic potential.

Successful organizations address these funding constraints by developing comprehensive value frameworks that capture both tangible and intangible benefits beyond simple cost reduction. They implement staged funding models that release resources based on demonstrated value rather than speculative projections.

Many create dedicated innovation funds specifically designed for experimentation, with different evaluation criteria than operational investments. They build business cases around specific problems with clear baseline metrics rather than technologies themselves, and focus initial investments on use cases with demonstrated ROI patterns from similar implementations.



Public sector talent gaps

38% rated scarce data and digital skills as a high constraint.

In addition to our survey respondents highlighting scarce data and digital skills, other research highlights the significant disruption in workplace skills as a result of AI adoption. The World Economic Forum's Future of Jobs Report 2025 reveals that nearly 38% of GPS workers' core skills will be transformed or outdated by 2025⁹

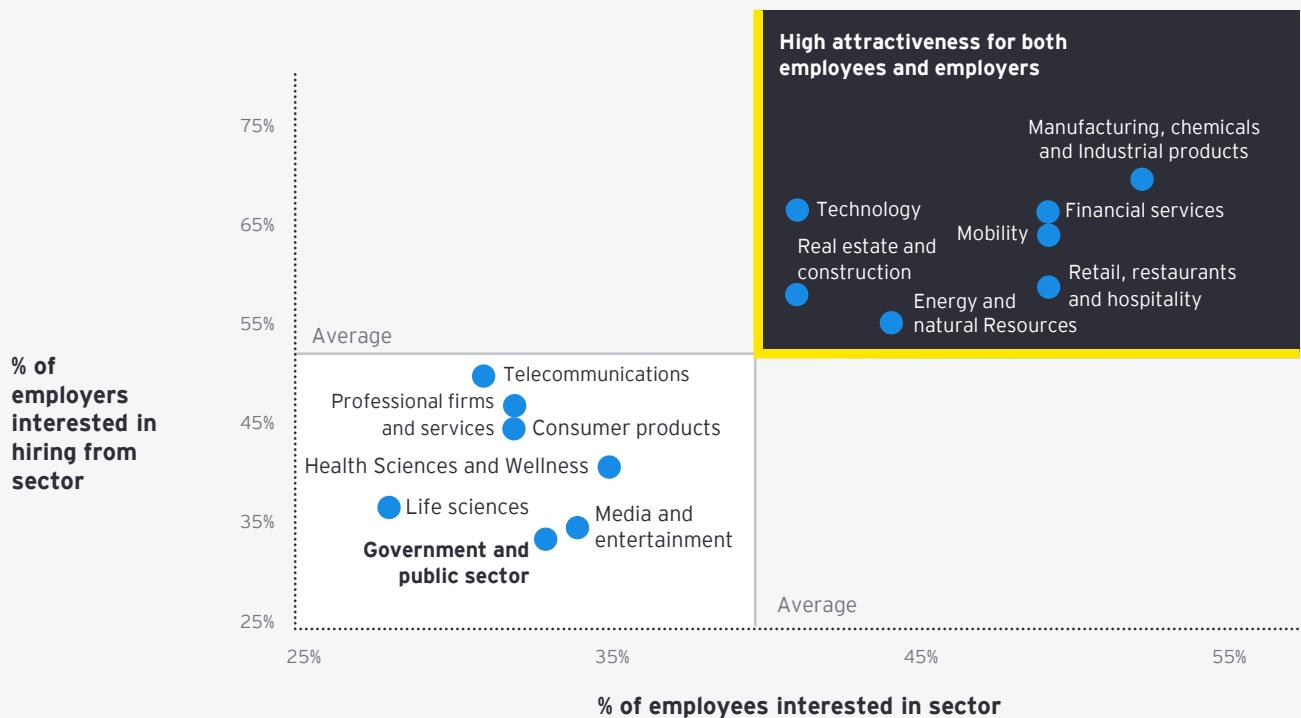
About

90% of public sector employers see AI as essential for their workforce. However, data and AI skills remain scarce and are in high demand across industries.

Upskilling public sector employees is essential for using AI tools. However, EY research shows government lags behind other industries. A 2025 European survey of nearly 5,000 employees indicates that only 18% of public sector workers feel they received sufficient AI training, the lowest among sectors. In comparison, 41% in financial services are satisfied with AI training. Less than half (46%) of public sector employees are self-educating in AI, versus 79% in advanced manufacturing.

Attracting new talent is challenging due to competition with private sector compensation and persistent negative perceptions of public sector work. The EY annual Work Reimagined Survey shows the GPS ranks low in terms of employees' interest in working in the sector, suggesting persistent negative perceptions of public sector work as bureaucratic, slow-paced, stressful and lacking career advancement (see Figure 11).

Figure 11: Attractiveness of different sectors for employees and employers



Source: EY 2024 Work Reimagined Survey

Leading organizations address these talent gaps by creating clear AI career pathways with competitive compensation structures that recognize these skillsets. They develop comprehensive upskilling programs that balance technical knowledge with domain understanding and establish "hub and spoke"

models that deploy specialized talent strategically throughout the organization. Many also establish formal partnerships with academic institutions to create talent pipelines and emphasize the unique public service mission and societal impact potential in their recruitment efforts.

35%

cite lack of innovation and risk-taking culture as a constraint.

Organizational culture often presents significant barriers to AI adoption, with 35% of respondents citing a lack of innovation and risk-taking as a constraint.

The public sector's traditional emphasis on stability and risk avoidance creates particular challenges for the experimental approaches that AI development requires. As a senior public official from the Government of Canada candidly stated: "The whole concept of rapid experimentation or incubation is not well understood or received within government. I think we tend to paralyze ourselves with way too much analysis, and we just don't ever make decisions. Therefore, we go to the lowest common denominator, the really easy stuff, like a chatbot."

The public sector also faces unique constraints due to its direct impact on citizens' wellbeing. As a senior public official in the State of Maryland explained:

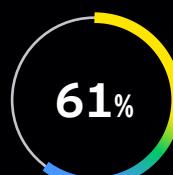
"Experimentation looks different in the public sector. We can't fail in the ways that you can in the private sector... There are people, services, and rights that are afforded to them. We have to be more circumspect about those matters."

This creates a need for appropriate guardrails before widespread adoption. Dr. Laura Gilbert, Former Head of Data and AI in 10 Downing Street, captured this dynamic: "When people don't understand the risks surrounding it, then the safest answer is always no." The impact of this caution is evident in adoption metrics, with the EY 2024 Work Reimagined Survey showing only 9% of public sector workers reporting extensive GenAI use compared with 23% across all sectors.

Workforce concerns about job security create additional resistance. While governments value productivity enhancements, leaders tread carefully around potential staffing implications, with 31% citing workforce concerns about job protection as a constraint. The EY European AI Barometer 2025 reveals the depth of these concerns, with 61% of public sector workers believing AI will take over some of their tasks, 73% thinking AI will reduce staffing needs and 41% worrying about their jobs being replaced entirely.

EY European AI Barometer

The forthcoming EY European AI Barometer 2025 reveals AI is reshaping job roles, with workers fearing it may take over tasks. Concerns jobs could be eliminated as AI enables smaller workforces.



of public sector workers think some tasks in their job will be done by AI.



think the use of AI will lead to organizations needing fewer staff.



are worried about their job being replaced.

Leading organizations address cultural resistance by creating safe spaces for experimentation with clear parameters and explicit learning objectives.

They implement comprehensive change management programs that address fears while demonstrating concrete benefits. Many develop specific guardrails and governance frameworks that enable responsible innovation within appropriate boundaries. They actively involve workers in AI solution design to build ownership and address concerns directly, while communicating a clear vision that emphasizes how AI will augment rather than replace human work.

Key takeaways

1 Prepare for intensifying challenges:

The primary barriers to AI adoption – privacy concerns, strategy and talent gaps, unclear ROI, inadequate infrastructure and ethical issues – persist across all implementation stages and often intensify during deployment. How can your organization prepare for these evolving challenges before they become roadblocks?

2 Prioritize building confidence:

Privacy concerns, reliability standards and explainability are crucial factors that must be addressed before widespread adoption can occur. What specific measures can you implement to build both citizen and employee trust in your AI initiatives?

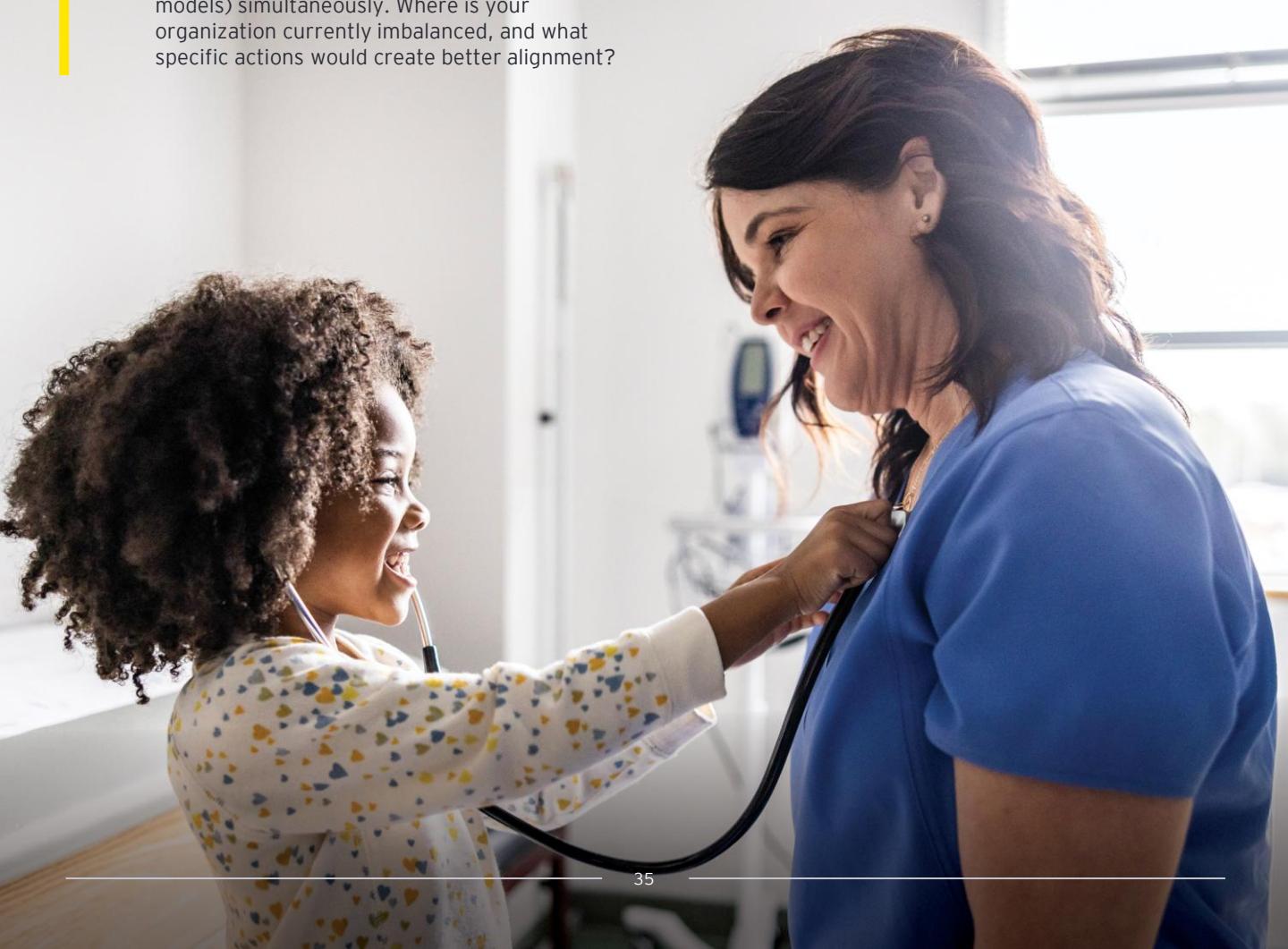
3 Balance technical and organizational factors:

Success requires addressing both the technical barriers (data infrastructure and quality) and the organizational challenges (leadership commitment, culture, talent gaps and funding models) simultaneously. Where is your organization currently imbalanced, and what specific actions would create better alignment?

Looking ahead: building on lessons from the pioneers

While these challenges are significant, our research shows they are not insurmountable.

By utilizing the proven strategies of successful early adopters, government organizations can expedite their progress through the implementation journey and start to harness the transformative potential of data and AI for the benefit of citizens, employees and society at large.





Succeeding with data and AI: lessons from the leaders

05

Succeeding with data and AI: lessons from the leaders

Governments' challenges in implementing data and AI technologies are significant, but not insurmountable.

Many organizations have successfully overcome these barriers to accelerate their data and AI journeys. Our in-depth interviews with senior government executives and AI experts across 14 countries revealed how leading organizations are successfully implementing data and AI initiatives; the findings provide several lessons for other government organizations that are less advanced.



A framework for success

We found that leading government organizations succeed by mapping out a journey from strategy development to putting in place foundational capabilities to effective execution and value delivery:

Making a bold strategic commitment to data and AI with executive-level sponsorship, strong business cases and dedicated investment.

Building five essential foundations that balance technology and human dimensions:

1 Data and technology: creating the foundational platforms (including cloud), modern architecture, systems and high-quality, accessible data assets and products that enable advanced capabilities.

2 Talent and skills: developing comprehensive digital literacy coupled with dedicated data science and AI skillsets distributed strategically throughout the organization.

3 Adaptive culture: fostering an innovation mindset that embraces experimentation, continuous learning and the ability to evolve rapidly as technologies advance.

4 Trust and ethical governance: building confidence through transparent data practices, robust privacy safeguards and ethical frameworks that allow AI systems to serve the public good.

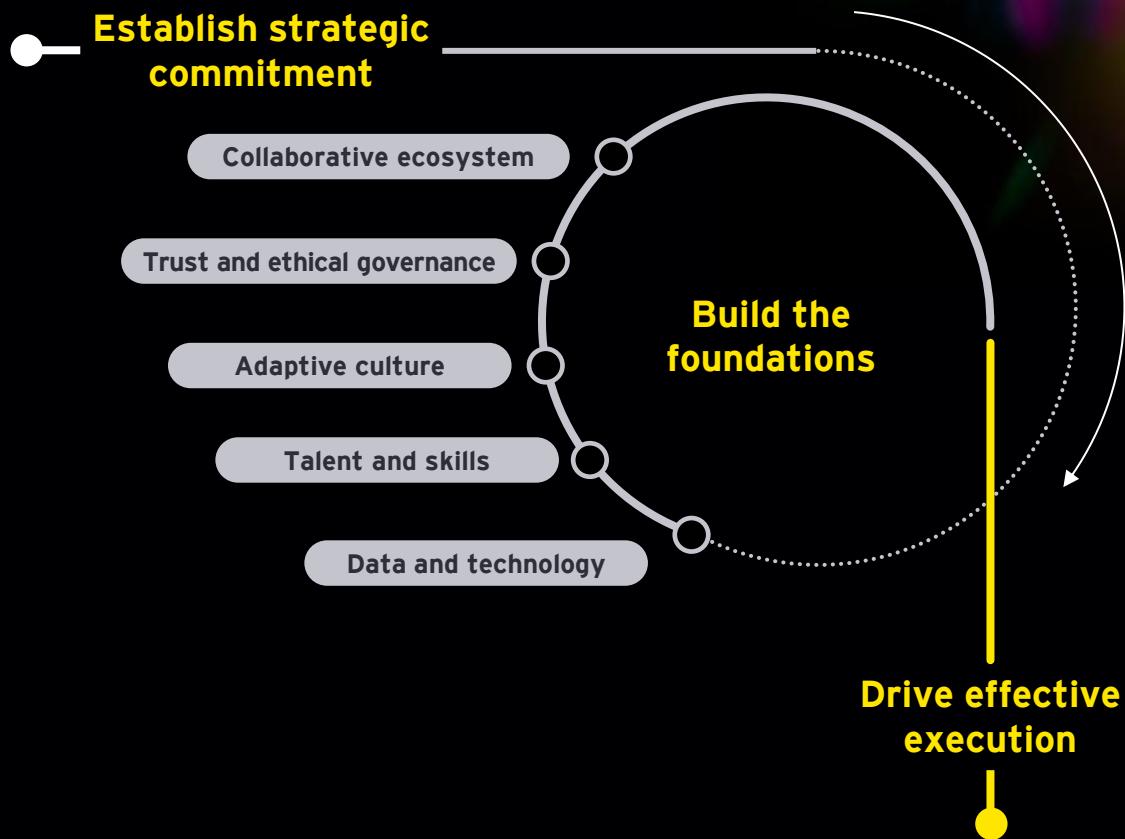
5 Collaborative ecosystem: developing strong partnerships across government, industry and civil society that support interoperability and accelerate innovation and implementation.

Driving effective execution by creating an action plan to move from strategy, to piloting and PoCs, to fully implementing analytics and AI solutions.

Leading organizations excel by building strength across all these elements rather than focusing on technology alone.

The five foundations

of successful implementation



Strategic commitment from the top: the essential starting point

Strategic commitment is reflected in a cohesive vision that aligns AI initiatives with the organization's mission and the main outcomes they want to achieve, and is driven by leaders who understand the potential of AI.

Change must be driven from the top, requiring bold leadership to overcome resistance and the vision to reimagine how government serves constituents and operates more efficiently through the use of AI. The research shows leading organizations put much greater emphasis on executive-level education in AI, more so than other technologies, to build understanding of its potential and to encourage acceptance of risk and openness to experimentation.

“

His Highness's vision was clear. He did not want to do something in AI. He wanted AI to transform how we do foreign trade. That is why it's easier to make a business case ... I would advise any government to have a very clear and very lofty vision and clarity of what you want.

Senior public official,
Ministry of Foreign Affairs, UAE

“

We've seen a number of organizations saying to us that they are actively trying to upskill their C-suite to try and get them across this technology in a way that they haven't done with other technologies, which have been more incremental.

Senior public official,
Economic Growth and Better Regulation
Victoria, Australia

Case example

Driving innovation from the top

Mikkel Hemmingsen, CEO of Denmark's government-owned Sund & Bælt Holding A/S, has made data analytics and AI experimentation a top priority. His decisive leadership overcame barriers: "I can make the decisions and say, 'Let's do it.' Sometimes, you need to be a little dictatorial to get things going." He fosters a culture that accepts calculated risks: "You have to accept that it might not work ... but we don't see it as wasted time or resources. It's a learning process.".¹⁰

This sends a powerful message that employees can experiment and fail, as long as they learn and adapt.

Leading organizations have developed governance structures such as AI boards and centers of excellence that are responsible for developing the AI strategy and overseeing implementation. The U.S. Department for Housing and Urban Development (HUD), for example, established an AI executive governance board that reviews and approves AI proposals, ensuring they align with strategic objectives, address workforce impacts and promote innovation while complying with safety and ethical standards.

We also noted that the leaders are taking a view on AI's long-term potential and are investing accordingly. They develop effective business cases that demonstrate the potential ROI to help secure the necessary funding and make shrewd strategic investments aligned to prioritized AI use cases. And they overcome budget challenges through innovative funding models that allow governments to spend less up front and base ongoing investments on demonstrated value.

Case example

Securing support through flexible funding models

Australia's Digital Transformation Agency is shifting from large-scale, high-cost programs to modular projects with multiple exit points, basing ongoing investments on tangible results from PoCs and pilots. As Lucy Poole explained, "It's changing the way we think about our investment decision-making, and how we encourage agencies to spend less upfront and demonstrate value... It's also helping to reduce risk during delivery."¹¹



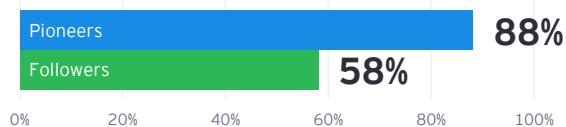
Five essential foundations: balancing technology with human dimensions and needs

Our research reveals that successful AI implementation requires a holistic approach that simultaneously addresses technological capabilities and organizational readiness. The five foundations below represent the critical building blocks that leading organizations have put in place to enable sustainable, scalable AI adoption that delivers meaningful public value.

Foundation 1

1 Data and Technology

Pioneers understand that robust data infrastructure forms the bedrock of successful AI implementation, with 88% having deployed this foundation compared with just 58% of followers.



We found that leading organizations prioritize flexible, scalable platforms that integrate data across previously siloed systems – including modern lakehouse architecture and cloud computing that enable efficient data processing at scale.

Case example

Enabling secure, automated data sharing

In the UK, rAPId is a standardized, open-source data sharing solution for government departments. It automates secure data sharing at scale, meeting the demand for quality evidence in public policy and providing decision-makers with high-quality data on demand. Available on GitHub, it is used by 14 departments, including the Cabinet Office and HM Treasury.

"It's nice to have a solution where, previously, departments that couldn't afford to do data sharing would carry on with their Excel spreadsheets or they'd have to hire someone at vast cost. Now, if you've got AWS, we can just give them a one-line deployment." Dr. Laura Gilbert, Former Head of Data & AI, 10 Downing Street

Leading organizations develop comprehensive data strategies with clear policies governing the entire data lifecycle, from collection and validation to storage and usage, recognizing that data preparation consumes most of AI project time.

“

Whenever you develop an AI solution, typically you spend 80% of your time on data and 20% on the solution, because the solution these days, with all tools we have, is a piece of cake.

Senior public official,

Danish Tax Authority, Denmark

Security receives particular attention, with leading organizations implementing measures to protect against "shadow AI" risks – situations where employees use unauthorized public AI tools that may expose sensitive data to external systems without proper governance controls. To oversee these complex data ecosystems, successful organizations often establish dedicated leadership roles such as chief data officers and chief AI officers who maintain accountability for both governance and strategic implementation.

Case example

Enabling real-time decisions through the transport data platform

In Australia, Victoria's Department of Transport and Planning invested in a transport data platform using Databricks' lakehouse architecture to consolidate structured and unstructured data from various sources. The platform scales data management and real-time processing, which is essential for transport networks.

"Now, with the advancements of GenAI, we are reaping the rewards. Because we have that platform, we have a plethora of data that's fully governed and secured. We have a team that's trained on it. With the AI services being applied to it, we will deliver value much more rapidly to the business." Jason Owusu, Chief Data & Digital Officer, Dept of Transport and Planning Victoria, Australia

Foundation 2

Talent and skills

The talent gap represents perhaps the most significant implementation barrier for government organizations, with stark disparities between pioneers and followers in their ability to attract and develop AI skillsets. While 79% of pioneers report having sufficient skills to drive implementation, only 44% of followers can say the same – creating a widening capability divide that threatens to leave many organizations behind.

Leading organizations address this challenge through multifaceted talent strategies that combine internal capability building with strategic external partnerships. They begin with comprehensive workforce planning that maps how AI will transform existing roles, identifies emerging positions and pinpoints critical skill requirements across the organization (see sidebar: Key skills for the future). For existing staff, they establish digital academies and learning platforms that deliver training at scale, with AI training programs designed around real operational challenges rather than abstract concepts.



Key skills for the future

AI and ML:

Proficiency in AI and ML, including AI prompt engineering and GenAI, is crucial for integrating these technologies in government.

Data engineering:

Maintaining data infrastructure, developing storage systems and building data analytics models are essential for future AI applications.

Cybersecurity:

Critical for safeguarding sensitive information, cybersecurity skills include data protection, network defense, secure coding and malware defense.

Cloud computing:

Understanding cloud platforms (AWS, Azure, Google Cloud) is vital as organizations transition from legacy systems to cloud-based infrastructures.

Analytical thinking and problem-solving:

Essential for interpreting data, solving problems and discerning truth in AI-driven government operations; 61% of employers value this skill.

Ethical skills:

Integrity, fairness, transparency and accountability are crucial for maintaining public trust and upholding the integrity of public servants.

Human-centric skills:

Leadership, adaptability and emotional intelligence are key for guiding diverse teams and leveraging technology while prioritizing human interaction.

Resilience, flexibility and agility:

Remaining resilient, adaptable and comfortable with change enhances employee engagement and job satisfaction in the public sector.

Case example

Upskilling public employees at scale

The UAE government created Jahiz, an AI-powered interactive platform that personalizes training for employees in a range of skills, including data analysis, AI, cloud and cybersecurity. The government has mandated AI training on Jahiz for all employees. Completed training feeds into a Future Skills Wallet that is integrated with the government's performance management system. By mid-2024, over 53,000 users had completed over one million training hours, earning 800,000+ badges.¹²

By mid-2024, over

53,000 **users** had completed over one million training hours

Targeted recruitment strategies emphasizing public service missions and their societal impact can help to attract technical talent that might otherwise gravitate toward higher-paying private sector positions. According to Jason Owusu, Chief Data & Digital Officer from Victoria's Department of Transport and Planning, "We can't compete with the big tech companies or the startups offering shares and so forth. We have to be a little bit more methodical about it ... Solving transport and planning problems for a state is a great feeling to have, so everyone will sign up to that."

Beyond traditional recruitment and training, leading organizations pursue innovative talent acquisition approaches, including fellowships and secondment programs that bring technical specialists from industry or academia to work on high-impact government challenges. They also develop talent exchange partnerships with technology providers and universities, creating mutually beneficial relationships that provide access to cutting-edge skillsets while offering valuable public sector experience to emerging talent.

Case example

Attracting exceptional technologists to tackle wicked problems

In the UK, the No10 Innovation Fellowships Programme brings private sector technical experts into government for a year. It attracts technologists such as data scientists and AI developers to work on high-impact, deliverable projects. They are matched with government departments requiring their unique skill set, access senior decision-makers and receive mentorship from the No10 Data Science team. The program has drawn world-class talent, creating tools that mitigate crises, facilitate testing of advanced AI models and solve national challenges. Fellows have engaged in projects such as strengthening the NHS, enhancing clean energy, building homes and boosting the economy.



Adaptive culture

Successful AI implementation requires far more than technical infrastructure – it demands fundamental shifts in organizational culture and mindsets. Leading organizations recognize that without addressing the human dimensions of change, even the most sophisticated AI technologies will fail to deliver their potential value. These organizations focus on cultivating environments where innovation, experimentation and comfort with emerging technologies can flourish.

At the core of this cultural transformation is strong leadership support for calculated risk-taking. Executives in leading organizations publicly champion experimentation and create formal "permission structures" that allow teams to test new approaches without fear of career consequences if initiatives don't achieve perfect outcomes. They complement this leadership endorsement with structured innovation mechanisms such as digital labs, incubators and skunkworks teams that provide protected spaces to develop and refine AI solutions before broader deployment.

Case example

Incubating public sector innovation in France

France's approach to creating innovative digital solutions is marked by an entrepreneurial spirit and a willingness to embrace failure within the government. The country's beta.gouv.fr program serves as a digital services incubator. It adopts an approach known as State Startups, where small, autonomous teams are empowered to experiment and innovate to address real-world public policy issues. Public servants who identify a problem are invited to participate in developing solutions that, if successful, are scaled to address broader user needs. As Florian Delezenne from Direction Interministérielle du Numérique (DINUM), the agency coordinating the beta.gouv.fr program, stated, "Normally, they think, 'We absolutely must not fail.' However, we say, 'We're bound to fail, but that's okay.'"

Beyond encouraging innovation, these organizations invest heavily in change management programs that help employees adapt to evolving roles and work environments. They emphasize clear communication about how AI will complement rather than replace human workers, focusing on how technology will eliminate mundane tasks while creating more fulfilling work opportunities.

Many implement human-centric design approaches that actively involve employees in developing AI tools, ensuring the resulting systems address actual user needs while building broader ownership of the solutions. Perhaps most importantly, they focus initial AI implementations on practical use cases that demonstrably enhance employee experience, creating visible benefits beyond cost reduction that generate organic enthusiasm for further adoption.

“

We are people-centered. We're not looking at this as a labor reduction (exercise). I've candidly communicated to my team that this is not ROI like in the private sector. This is ROE, return on experience.

Vinay Singh

Former Chief Financial Officer & Chief AI Officer, Department of Housing and Urban Development (HUD), USA

Case example

Cultivating enthusiasm for AI across the workforce

The Région Île-de-France government launched an initiative to build leadership and employee confidence in AI.

It organized educational AI weeks, hands-on workshops, ethics talks by the French data protection agency, explanations of LLMs by researchers, and continual communication and training programs. It engaged with executives and directors to demonstrate AI's capabilities, as well as the transparency and ethical guardrails in place.

A dedicated team was set up for six months to address employee concerns, and a mailbox collected use case ideas from employees. "I think now around 70%, 75% of the employees are really interested in either finding AI use cases or using some products available to them." Achille Lerpiniere, Chief Information & Technology Officer, Région Île-de-France

Trust and ethical governance

Building public trust is essential for successful AI implementation in government, with our research revealing significant disparities in how organizations approach this challenge. While 78% of pioneers have developed strong ethical guidelines for AI use, only 49% of followers have established similar frameworks – creating potential risks of public resistance to their AI initiatives.

Leading organizations recognize that citizen support depends on both the perception and reality of responsible, ethical AI governance. These organizations begin with proactive public engagement to understand citizen attitudes and address concerns about AI before implementation. They conduct regular consultations, surveys and focus groups to gauge public sentiment, using these insights to shape both their technical approaches and communication strategies. Some complement this with digital literacy programs designed to deliver technological inclusion across all demographic groups, particularly focusing on populations at risk of digital exclusion.

The most advanced organizations directly involve citizens in designing and testing AI solutions, creating participatory processes that build ownership and acceptance while improving the quality of the resulting systems.

Case example

Fostering citizens' trust

The City of Amarillo, Texas, develops AI solutions in collaboration with the community. As Rich Gagnon, CIO, explained, "In the private sector, you're innovating to gain a competitive advantage over your competition. That doesn't apply in the public sector. You must innovate alongside the public." This approach was used to launch the city's digital human, Emma, accelerating the move from pilot to production. "You have to establish this safe space for the community to feel like, 'It's okay for our city to be testing AI because these controls are in place, and they know exactly what they're doing.'"



Case example

Demonstrating trustworthiness through public engagement

The New South Wales government has diligently worked to enhance public confidence through consistent messaging regarding privacy, security, ethics, transparency and inclusiveness. As Dr. Ian Oppermann, the co-founder of ServiceGen, stated, "We shifted the language from 'trust' to 'trustworthiness' because you can demonstrate trustworthiness; you can't really ask to be trusted."

The government organized public events, including an AI summit, to showcase its projects and technologies. "We showcased to the public what we were doing. We demonstrated aspects related to data use and AI, as well as privacy-enhancing technologies."

On the technical side, leading organizations implement robust data privacy protections, including transparent informed consent mechanisms and clear data usage policies. They develop comprehensive ethical frameworks that establish principles and guidelines for responsible AI deployment, complemented by systematic bias testing protocols that check for discrimination or unfair outcomes in their models. Transparency receives particular emphasis, with governance mechanisms so that AI systems' operations and limitations are clearly documented and explainable to both citizens and oversight bodies. Perhaps most importantly, these organizations maintain meaningful human oversight of AI-enabled decision-making, preserving accountability while ensuring that automation augments rather than replaces human judgment in consequential determinations.

Case example

Enhancing human judgment of caseworkers

The Danish tax authority uses ML to identify patterns in citizens' tax returns. Rather than making fraud determinations automatically, the system flags irregularities for human caseworkers to review.

Detecting irregularities in this manner has generated substantial financial savings while maintaining human judgment. The organization has secured caseworker acceptance through training that positions AI as a supportive tool and by incorporating feedback to continuously improve the model.



Foundation 5

Collaborative ecosystems

Leading governments have recognized a fundamental truth about AI innovation: No single organization, even the largest government entity, possesses all the resources, skillsets and capabilities needed to maximize AI's potential. Leading organizations systematically develop diverse partnership networks that span public, private, academic and civil society sectors to accelerate implementation and extend their capabilities far beyond what they could achieve independently.

These collaborative ecosystems operate across multiple dimensions. On the infrastructure front, governments partner with private sector investors to develop the essential foundations for AI deployment, including advanced data centers and scalable cloud platforms. They establish strategic technology partnerships with industry leaders to access cutting-edge tools and skillsets that would be impractical to develop internally. Research and development acceleration occurs through structured academic collaborations that connect government challenges with university innovation capabilities, while regulatory frameworks benefit from multistakeholder engagement that allow governance approaches to balance innovation with appropriate safeguards.

Talent development represents another critical area for collaboration, with leaders creating workforce upskilling partnerships with educational institutions and technology companies that extend far beyond traditional training programs. Many implement formal talent exchange mechanisms between the public and private sectors that address immediate skill gaps while building long-term capability.

Data sharing partnerships enable enhanced model training and generate richer insights by combining complementary data sets across organizational boundaries. Intergovernmental cooperation – both horizontally across agencies and vertically across levels of government – prevents duplicate efforts and shares implementation lessons. The most advanced organizations extend their collaborative focus beyond government, actively supporting broader AI adoption across their economies through innovation hubs, startup incubators and digital skills initiatives.

Case example

Partnering to accelerate AI innovation and adoption

Urssaf in France promotes open innovation through Le Lab Urssaf, fostering collaboration with startups to tackle public sector challenges. It runs Pitch Contests for service providers, enabling it to quickly assess innovative solutions and keep up to date on technological advances.

National Highways in the UK partners with organizations across the mobility ecosystem, sharing data through Application Programming Interfaces (API). This open platform enhances digital products and services, ultimately benefiting end consumers.

Dubai's AI Lab fosters partnerships between the government and private sectors, providing tools and support for AI services and applications. Training sessions, workshops and access to AI tools are available for government entities and SMEs, while also accelerating Dubai's AI investment landscape.

France Travail shares its knowledge with other public services to advance AI in the public sector. Alongside the Ministry of Labor and INRIA, France Travail participates in LaborAI, which studies the potential impacts of the deployment of artificial intelligence in French companies on work, employment, skills, and working conditions. It also conducts knowledge exchanges with other European public employment services on AI and digital technologies.



Driving effective execution: from pilot to impact

Moving from isolated pilot projects to organization-wide implementation requires disciplined execution and a clear roadmap. Based on our research with leading organizations, we recommend the following action plan for government leaders:

1 Establish a clear vision and governance model

- Define an AI-enabled future state that articulates how data and AI will transform your organization's ability to deliver on its mission.
- Create a dedicated governance structure with clear authority, such as an AI board with cross-functional representation.
- Adopt agile funding models, linking financial support to demonstrated progress.
- Appoint accountable leaders for data and AI initiatives who champion experimentation.
- Develop an integrated roadmap that aligns technology implementation with organizational change management.

2 Start with high-value use cases

- Identify problems with direct impact on the value drivers, including citizen services, employee experience, operational efficiency and resilience.
- Focus on human-centric design, involving end users in the development and testing process.
- Prioritize use cases systematically based on feasibility, impact, and strategic alignment.
- Begin with "no regret" opportunities that offer clear ROI and build momentum.
- Create a structured evaluation process with defined success criteria linked to strategic goals.

3 Build technical and data foundations for scale

- Assess your data maturity to identify gaps in data accuracy and completeness, and prioritize infrastructure investments.
- Establish enterprise-wide data governance with clear policies for collection, sharing and usage.
- Invest in data quality improvements as a critical prerequisite for AI success.
- Implement flexible, scalable architecture designed to support future AI applications.
- Adopt a security-by-design approach to mitigate data privacy and protection risks.

4 Develop implementation capabilities

- Create a hub-and-spoke delivery model that combines central skillsets with embedded professionals.
- Build multidisciplinary teams that blend technical, domain and change management skills.
- Adopt incremental approaches, starting with Minimum Viable Product (MVP) and allowing for rapid iteration and continuous feedback.
- Establish centers of excellence to develop dedicated capabilities and share best practices.
- Modernize procurement processes to support agile development, technology innovation and value for money.

5 Foster trust through transparent governance

- Establish ethical guidelines for responsible AI development and usage and provide comprehensive training for employees.
- Engage with regulators through the design process.
- Establish a central committee to oversee ethical and legal compliance.
- Implement bias testing protocols to establish fair and equitable outcomes.
- Create transparent documentation of AI models and decision processes.
- Engage stakeholders early and often in the design and testing of solutions.
- Maintain human oversight of AI-enabled decision-making to provide accountability.



6 Invest in your people

- Conduct a skills gap assessment to identify critical capability needs.
- Develop comprehensive upskilling programs for technical and nontechnical staff.
- Create career pathways for data and AI professionals within government.
- Train leaders and managers to effectively lead digital transformation initiatives.
- Address workforce concerns about AI's impact through open communication.

7 Measure impact and drive continuous improvement

- Define clear metrics that link to organizational priorities and public value.
- Implement monitoring systems to track performance and identify issues.
- Establish feedback loops to continuously refine and enhance AI models.
- Share outcomes transparently with stakeholders to build momentum and guide future direction.
- Document and communicate successes to build organizational support.

8 Scale through strategic partnerships

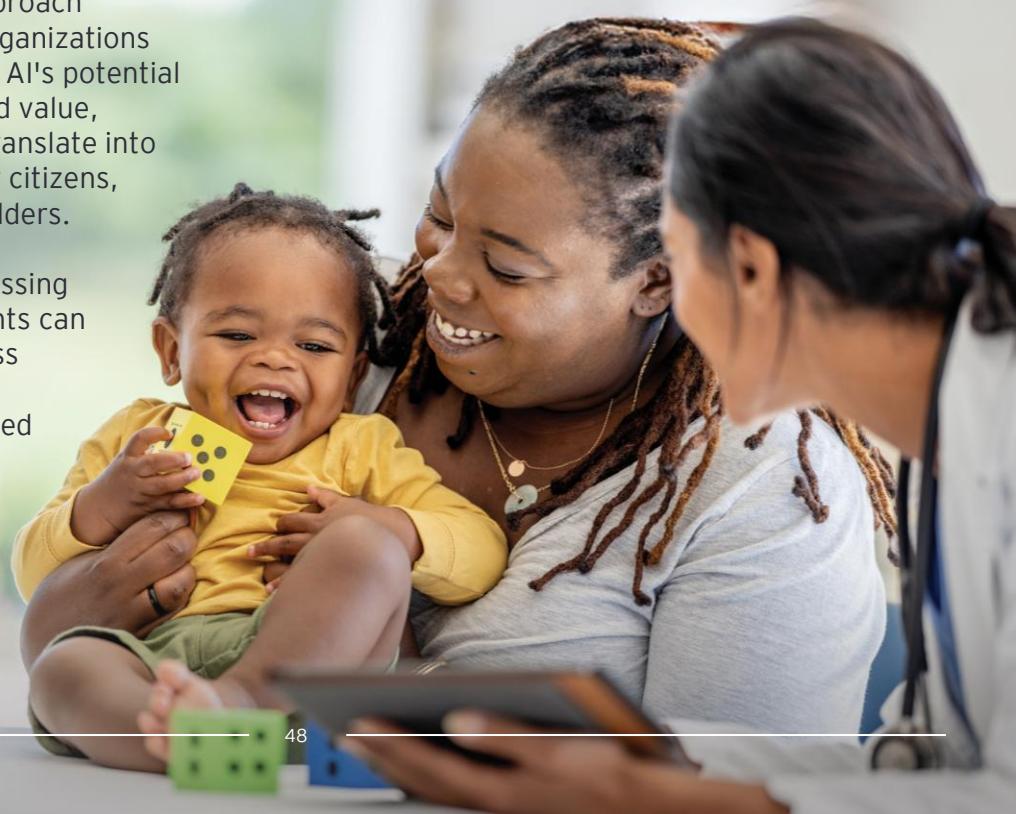
- Identify capability gaps that could be addressed through external partnerships.
- Engage technology partners strategically to access cutting-edge skillsets.
- Collaborate with academic institutions for research and talent development.
- Participate in cross-government initiatives to share best practices and resources.
- Build ecosystems that accelerate innovation and implementation.

9 Plan for long-term sustainability

- Project costs for scaling and implement flexible funding models that support ongoing development.
- Develop maintenance and enhancement strategies for deployed solutions.
- Create knowledge management systems to preserve institutional learning.
- Anticipate evolving regulations and build compliance into your approach.
- Regularly reassess strategic alignment as technologies and priorities evolve.

This comprehensive approach will help government organizations bridge the gap between AI's potential and unlocking real-world value, ensuring investments translate into measurable benefits for citizens, employees and stakeholders.

By systematically addressing these areas, governments can accelerate their progress and avoid the common pitfalls that have hindered previous digital transformation efforts.



How EY teams help government organizations with data-driven transformation

EY teams can assist government organizations in implementing data and insights-driven transformation through an end-to-end approach that spans strategy development, execution and value measurement.

Strategy development and planning

EY teams conduct a thorough assessment of the current state of AI and data capabilities within your organization. We define your destination and develop a detailed strategy and roadmap, outlining key initiatives, timelines and milestones.

We provide support in prioritizing and planning the implementation of high-impact use cases that support the organization's long-term goals. We conduct stakeholder engagement to deliver alignment and buy-in, and help to establish governance structures to oversee the AI strategy implementation.

For a transportation authority, our program delivered a modernization roadmap that improved safety outcomes and customer service while simplifying the technology landscape.

Creating the foundation

EY teams help build robust digital infrastructure and scalable data platforms that form the backbone for AI initiatives. This includes data lakes, cloud platforms and integration tools. For a state transportation department, we developed an enhanced open data exchange platform that improved data governance and searchability while fostering collaboration with the developer community – creating a foundation for data-driven decision-making and operational excellence.

We embed ethical and responsible AI practices from inception, including the establishment of core policies, principles and governance structures. When implementing a child welfare data platform for a state education department, our governance framework delivered both enhanced collaboration and rigorous privacy protection across 2.1 million records.

We put people at the center by building agile cultures, developing workforce capabilities and delivering solutions that benefit end users with sustainable adoption. For a federal defense department, we standardized data workflows that not only reduced transfer time by 66% but also empowered analysts with instantaneous impact assessments and simplified processes that reduced sprint planning time by 75%.

Execution and value measurement

During the execution phase, EY teams design and develop AI models tailored to specific use cases. We support pilot programs to test and refine AI solutions, and the scaling of successful pilots across the organization, ensuring integration with existing systems and processes. We build trust into every solution through robust validation processes and transparent AI models. Our strategic alliances with Microsoft, Snowflake and Databricks (among others) enable us to design the optimal solution without ecosystem constraints.

We help to quantify the benefits realized from AI initiatives, such as cost savings, efficiency gains and improved service delivery, by defining and continuously monitoring key performance indicators (KPIs), which demonstrate value and inform decision-making.

We delivered an AI-related M365 Copilot workforce pilot assessment to a government client in a joint venture with Microsoft that focused on use case refinement and performance monitoring, with estimated savings of around 5-9% hours per week for employees.



EY proprietary accelerators and tools

Our transformation approach is powered by field-tested proprietary assets:

AI Governance Toolkit:

establishes ethical and responsible AI adoption through core policies, principles and a governance structure

AI Risk Playbook:

develops a comprehensive risk management framework, including a risk register and monitoring KPIs

Rapid Assessment Framework:

evaluates technology and infrastructure readiness, identifying gaps and opportunities for improvement

AI Use Case Catalog and Ideation Framework:

rapidly identifies and prioritizes high-impact AI use cases through stakeholder engagement and workshops

Data Fabric Architecture:

increases efficiency with 90% reduction in manual effort

Secure Innovation Labs:

tests AI solutions in controlled environments

Skills Assessment:

conducts skills needs analysis and develops a roadmap for training and talent development

Estimator Tool:

provides detailed cost and timeline estimations for AI implementation

AI Monitoring Framework:

tracks progress and evaluates the effectiveness of AI initiatives through defined metrics and milestones

By leveraging these frameworks and tools and accelerators, EY delivers a structured and effective approach to implementing data analytics and AI, ultimately driving innovation, operational efficiency and enhanced service delivery for government organizations.



Conclusion:

seizing the AI moment
– a strategic imperative

06

Conclusion: seizing the AI moment – a strategic imperative

Governments today face unprecedented challenges – fiscal constraints, workforce pressures, complex societal problems and rising citizen expectations – that demand transformative solutions. Our comprehensive research demonstrates that data and AI technologies offer precisely the capabilities needed to address these challenges, but only when implemented thoughtfully and systematically.

The stakes are high. Organizations that delay implementation risk widening service gaps, eroding public trust and compromising their fundamental ability to fulfill their missions. Conversely, leading organizations are already realizing substantial benefits: enhanced productivity, improved employee experience, transformed citizen services, enhanced planning, strengthened financial management and greater resilience.

Our findings reveal a clear path forward to bridge the implementation gap between AI's potential and tangible results:

1 Make a bold strategic commitment with executive-level sponsorship and dedicated investment.

2 Build five essential foundations that balance technology with organizational readiness:

- Robust data infrastructure and governance
- Strategic talent development and recruitment
- Adaptive culture that embraces innovation
- Public trust through ethical frameworks and transparency
- Collaborative ecosystems across sectors

3 Drive effective execution by developing an action plan that moves beyond pilots to scaled implementation.

Critically, successful organizations recognize that true transformation requires simultaneously addressing technological capabilities and human dimensions. Technology alone cannot drive change; it must be paired with organizational readiness to leverage it effectively.

The time for incremental approaches has passed. As AI technologies advance rapidly, the opportunity cost of inaction grows daily. Government executives must act with urgency, making strategic investments that strengthen all five foundations in parallel rather than sequentially.

The rewards extend far beyond operational efficiency for those who successfully navigate this journey. The true promise of data and AI lies in their potential to fundamentally reimagine how governments deliver value to citizens, creating more responsive, inclusive and effective public services that meet the complex challenges of the 21st century.

The future of effective governance depends on seizing this moment. The question for government leaders is no longer whether to embrace these technologies, but how quickly and effectively they can implement them to enhance their organization's core mission: improving outcomes for all citizens and businesses, creating a conducive environment for growth, promoting a thriving society and meeting community expectations with confidence.

A woman with dark skin and curly hair is smiling and driving a car. The background shows a blurred landscape through the window, suggesting motion. A large, semi-transparent white 'A' graphic is overlaid on the upper half of the image, with a thin yellow horizontal line extending from its base.

Appendix

Appendix

Through our research, we identified multiple applications of data analytics and AI that drive value creation across the six dimensions

The numerous applications of analytics and AI uncovered through our primary and secondary research span essential government functions, including health care, workforce development, public utility services, tax, social security, infrastructure, traffic management, public safety, and defense and security.

They also extend to critical cross-cutting domains such as data management, language processing, process automation, and innovation and research, demonstrating these technologies' versatility and transformative potential across the entire public sector ecosystem.

Category	Use cases	Value drivers	Examples
1	<p>Education and workforce development Offering wide-ranging educational programs and upskilling initiatives to enhance Digital and AI literacy and data competency among government officials, employees and the public</p> <p>Personalized self-learning management systems for students based on an understanding of their individual capabilities using AI and data analytics</p> <p>AI tools for efficient grading and personalized feedback, helping to reduce the workload of teaching staff</p> <p>Interactive training applications using LLM to enhance government officers' knowledge base</p>	<p>Customer and end-user experience</p> <p>Productivity and efficiency</p> <p>Employee experience</p> <p>Employee experience</p>	<p>The Ministry of Higher Education and Scientific Research UAE is developing a knowledge tree AI program to assess the mastery level of students by analyzing their grades, educational history, behavior, etc. This comprehensive data collection will feed into a model that identifies each student's proficiency. With this insight, a personalized self-learning management system will be provided to enhance their mastery in specific subjects, ultimately tailoring their educational experience.¹³</p> <p>In Japan, automated scoring software is used in various mock exams to read students' handwritten answers through Optical Character Recognition (OCR) technology. Once this is done, a machine recognition system may be used to automatically grade them, thereby significantly reducing teachers' grading time and allowing them to focus on personalized instructions for students.¹⁴</p> <p>The U.S. Citizenship and Immigration Services (USCIS) is creating an interactive application powered by GenAI to revolutionize its training program for immigration officers. This application will produce dynamic, personalized training content tailored to the needs of each officer, ensuring comprehensive knowledge of current policies and laws pertinent to their roles. The objective is to improve trainees' comprehension and retention of vital information, refine the precision of their decision-making and reduce the frequency of retraining.¹⁵</p>

Category

2

Healthcare

Applying AI to health care data governance, prescription safety and preventative care, and leveraging extensive health databases to improve public health outcomes

Use cases

Implementing a prescription safety system to prevent medication-related fatalities

Using health data to develop models predicting hospitalizations and serious health conditions

Providing a multilingual health information assistant to promote healthy living and global health rights

Value drivers

Citizen and end-user experience

Strategic service planning

Citizen and end-user experience

Examples

The UK government is trialing an AI system to address the issue of polypharmacy, which causes up to 22,000 deaths annually due to harmful prescription combinations. The technology aims to alert pharmacists about dangerous prescription regimens, potentially saving lives and reducing the £1 billion cost associated with bad prescriptions.¹⁶

The Directorate for Research, Studies, Evaluation, and Statistics (DREES), France, plans to use the national health data system (SNDS database) for developing predictive health models. They will apply AI to identify patterns that could help predict future hospitalizations and serious health conditions.¹⁷

The World Health Organization has developed S.A.R.A.H., a Smart AI Resource Assistant for Health that provides 24/7 health information in eight languages, supporting personalized interactions to foster healthy living and mental wellbeing. It educates on disease risks, empowering individuals with health knowledge and promoting global health rights.¹⁸

Category

3

Language processing and accessibility

Advancing NLP and accessibility through AI, including language corpora expansion, translation services and real-time subtitling for inclusivity

Use cases

Expanding language corpora to enhance NLP service accessibility

Implementing a synchronous subtitling facility for video conferences to improve accessibility

Utilizing AI for language translation to automate legal transcriptions, accelerating courtroom processes and reducing backlogs

Value drivers

Citizen and end-user experience

Citizen and end-user experience

Productivity and efficiency

Examples

The Estonian government is looking to build on Estonian language corpora from around four billion words to 15 billion words by 2026, to support NLP and other AI applications and improve service accessibility to all sections of the society.¹⁹

The North Rhine-Westphalia state in Germany uses a speech-to-text AI technology that provides synchronous subtitles of video conferences to enhance accessibility.²⁰

Tanzania's courtrooms are leveraging an AI system to streamline legal processes via language translation. The AI, proficient in Swahili dialects, automates case transcriptions and translations, thereby speeding up trials and addressing case backlogs. Initially deployed in 11 courtrooms, the plan is to expand it to over 50 in four years.²¹

Category**4****Public services and citizen engagement**

Enhancing citizen engagement and service delivery through proactive public services and sentiment analysis tools, etc., to streamline citizen access to government services, increasing engagement and satisfaction

Use cases**Value drivers****Examples**

Assisting agents in auto-filling online government aid forms for citizens	Citizen and end-user experience	The Interministerial Digital Directorate (DINUM) supported the Interministerial Directorate for Public Transformation (DITP) and the National Agency for Territorial Cohesion (ANCT) in launching an AI-enabled Maisons France Services tool which assists citizens lacking digital skills or education in completing online forms. The tool aids agents in auto-filling government aid applications for citizens and uses simulators and personal data to help citizens obtain various entitled benefits. ²²
Deploying data analytics to develop services that automatically deliver citizen benefits and documentation	Citizen and end-user experience	The Estonian government is developing Proactive Public Services that automatically provide citizens with benefits and necessary documentation without the need for applications or bureaucratic processes. These services use existing data to identify eligibility for subsidies, health care and other entitlements, providing seamless support for individuals such as new parents with social benefits or pensioners living alone with financial aid. ²³
Monitoring and enhancing digital user experience with AI analytics tools	Citizen and end-user experience	The City of Corona, California, is utilizing an AI-powered analytics tool to monitor user experience on their digital platforms. By detecting frustration signals such as error and rage clicks, city officials analyze anonymized session replays to pinpoint and address user interface issues. Data dashboards further aid in pattern recognition and customer experience enhancement, resulting in a 10x increase in citizen engagement. ²⁴

Category**5****Operational efficiency and process automation**

Utilization of AI for coding, RPA and process optimization across various government departments to enhance operational efficiency and reduce manual workload

Use cases**Value drivers****Examples**

Deploying AI to enhance adjudication processes of various claims made by citizens	Productivity and efficiency Employee experience	The Government of Canada has deployed AI in Employment Insurance (EI) jurisprudence, wherein a GenAI model analyzes case law around EI judgments and claim decisions, and helps adjudicators to test and verify the rejected claims, thereby improving productivity by around 40%. ²⁵
Streamline and reduce biases in recruitment by employing digital tools to swiftly identify alternative suitable candidates from large applicant pools	Productivity and efficiency	The European Commission plans to leverage AI to support their recruitment process by providing a second recruitment step in the process. Once a preliminary selection is done, the recruiter will be able to use an AI job matching tool to filter and identify alternative potential candidates from a large pool of applicants. This will help in significantly improving the quality of the selection process. ²⁶
Integrating Microsoft Copilot to assist social care workers in automating administrative tasks and enhancing client interactions	Employee experience	Barnsley Council in the UK has adopted Copilot for Microsoft 365 to aid social care workers in automating documentation, note-cleaning and file summarization. This integration with daily tools such as PowerPoint and Teams enhances direct client service, flags vital case details for prompt action, and supports training material development and data record accuracy. ²⁷

Category

6

Data management and governance

Focusing on the improvement and centralization of data governance, infrastructure and platforms to provide data integrity and accessibility for effective decision-making and policy development

Use cases

Establishing data capability hubs to manage the entire data lifecycle and enhance intelligence application

Utilizing data frameworks to measure and evaluate data management capabilities within the organization

Developing integrated data platforms for a one-stop view of data, better suited for policymaking rather than operating in silos

Implementing data sovereignty initiatives to maintain control over data and analytical processes internally

Value drivers

Strategic service planning

Strategic service planning

Strategic service planning

Risk and resilience

Examples

The Australian Taxation Office (ATO) has a D&A capability based on a "hub and spoke" model. The hub (Smarter Data) governs D&A and delivers D&A tools, solutions and expertise to other areas of the agency. The agency is using cloud solutions to enhance data and AI capabilities.²⁸

The EDM Council developed the Data Management Capability Assessment Model (DCAM) as a best practice framework that measures data management capabilities and progress using a scoring matrix. The Office of Inspector General of the Federal Reserve Board utilized DCAM to evaluate the data management readiness of the Federal Reserve System.²⁹

The Department of Transport and Planning in Victoria State, Australia is building a comprehensive transport data platform, based on the Databricks environment, to unify various data sources. The platform, powered by AI and machine learning, aims to provide actionable insights for transport management and planning, policymaking and enhancing the citizen experience based on a solid data governance model.³⁰

The DREES has implemented data sovereignty initiatives to maintain control over their data. They run AI, ML, and Scikit-learn models on their own infrastructure, which is completely disconnected from the internet. This allows them to have full control over the data and the analytical processes without external interference.³¹

Category

7

Predictive analytics and decision support

Undertaking predictive analytics for strategic insights, aiding in decision-making across risk management, resource allocation and policy impact analysis

Use cases

Improving the accuracy of energy demand forecasts using data and AI

Applying data analytics to forecast support ticket volumes, helping better asset management

Undertaking data analytics for strategic insights around preventive social care

Value drivers

Strategic service planning

Strategic service planning

Citizen and end-user experience

Strategic service planning

Examples

The Energy Market Authority, Singapore leverages extensive data and various modeling techniques to enhance the accuracy of its medium to long-term energy demand forecasts. These projections are crucial for industry players to evaluate the economic and commercial viability of investments in energy capacity and infrastructure development in Singapore.³²

The UAE Ministry of Foreign Affairs utilizes data analytics to forecast the volume of support tickets filed by government ministries, as well as predicting asset needs and salvage values across UAE consulates in 150 countries.³³

The City of Ottawa, Canada, is creating an AI system to predict and identify individuals at risk of chronic homelessness. The tool, linked to the shelter database, will analyze data for early intervention, aiding social workers in offering prompt support and reducing repeat homelessness, while standardizing assessments to reduce human bias.³⁴

Category**8****Security and compliance**

Ensuring security and compliance through AI applications in profiling, market surveillance and cybersecurity, bolstering data protection and legal adherence

Use cases**Value drivers****Examples**

Integrating AI in cybersecurity tools for enhanced endpoint detection	Risk and resilience	The Texas Department of Licensing & Regulation, USA is integrating ML and AI capabilities with cybersecurity tools to enhance their email security and endpoint detection capabilities. These tools leverage AI to learn about the types of things that are junk, which can be managed accordingly. ³⁵
Assessing risk of regulatory violations and detecting potential breaches in compliance	Risk and resilience	The US Department of Health and Human Services is using AI tools to detect counterfeit pharmaceuticals and medical devices, as well as Medicare and Medicaid fraud, waste and abuse. ³⁶
Creating internal verification systems so that job postings comply with legal and nondiscrimination standards	Risk and resilience	France Travail (previously Pôle emploi) has developed an AI system internally to verify the compliance of job postings by recruiters with legal requirements, ensuring that illegal or fraudulent offers are not published. This system also checks for various forms of discrimination and other legal criteria that job offers must meet. ³⁷

Category**9****Content creation and media**

Enhancing creative processes and information management through AI and GenAI-powered summarization, ideation and content generation, including legal research and case analysis

Use cases**Value drivers****Examples**

Enhancing information management through AI and GenAI-powered summarization and presentation preparation	Productivity and efficiency	The Japan Institute for the Promotion of Digital Economy and Community (JIPDEC) has been leveraging GenAI to summarize the minutes of meetings and create PowerPoint slides for presentations. This has halved the summarizing time from one day to less than half a day. ³⁸
Integrating AI for effective tracking and creation of social media posts	Risk and resilience	The social media team at the UAE Ministry of Foreign Affairs has embedded AI tools to track and create social media content. It is currently piloting GenAI use for detecting misinformation, deep fakes, rumors and other false narratives circulating on social media about the UAE. ³⁹
Using conversational AI to make written communications more engaging and approachable	Productivity and efficiency Employee experience	The Information Security Office of the Texas Department of Licensing and Regulation uses ChatGPT to refine written communication, transforming standard notices into engaging messages with a touch of humor. This approach not only conveys important information but also adds levity, making directives less rigid and fostering a positive response from staff, thereby softening the image of strict enforcement. ⁴⁰

Category**10****Transport and infrastructure management**

Enhancing transport and infrastructure management through data and AI, from real-time network monitoring to predictive maintenance, improving service quality and resource utilization

Use cases**Value drivers****Examples**

Predicting public transport usage for better demand planning, and ensuring real-time monitoring for effective traffic management

Strategic service planning

The Department of Transport and Planning in Victoria State, Australia uses data analytics and AI to predict public transport usage to determine revenue impact and service requirements, and to monitor the road network in real time. By analyzing CCTV footage via ML, it classifies vehicles and identifies unusual congestion, enhancing situational awareness and traffic management.⁴¹

Using image recognition technology to detect concrete cracks in infrastructure with high accuracy

Productivity and efficiency

Sund & Bælt Holding A/S, a government-owned construction company in Denmark, leverages AI and image recognition technology to identify cracks in concrete. Around 7,000 images with different kinds of cracks were marked and fed into the AI model to enable better recognition, resulting in an accuracy rate of over 90%.⁴²

Applying AI to manage building portfolios, improve floor plan accuracy and streamline maintenance

Strategic service planning

The Région Île-de-France utilizes AI for managing its extensive building portfolio, including high schools and leisure centers. By leveraging AI, the region is able to detect and remove errors in building floor plans, automate report categorization and enhance data extraction for maintenance planning. This AI integration has assisted in strategic renovation planning, streamlining maintenance and ensuring data quality.⁴³

Category**11****Innovation and research**

Driving innovation through AI ecosystem development, governance frameworks and collaborative research, fostering new AI applications and policy agility

Use cases**Value drivers****Examples**

Building AI models to expedite scientific research outcomes using big data and supercomputers

Productivity and efficiency

Japan and the US are collaborating to develop an AI model dedicated to scientific research, leveraging data sharing and the combined power of supercomputers Fugaku and Aurora. This partnership builds on their individual AI efforts in using experimental data to expedite research outcomes, potentially reducing the time for results from years to months.⁴⁴

Creating AI-based systems acting as innovation hub to drive research and transform public service delivery

Strategic service planning

The Interministerial Digital Directorate, France, has set up AI Albert, an AI system developed by Etalab, which operates as a R&D laboratory for new AI initiatives within the French government. It focuses on supporting initiatives that aim to transform public services.⁴⁵

Partnering with tech companies to harness advanced AI models for scientific progress and R&D innovation

Citizen and end-user experience

The UK's Department for Science, Innovation and Technology has entered into a partnership with Anthropic to explore the use of Claude, Anthropic's advanced AI model, for advancing scientific progress supporting AI innovation, among other things. The partnership aims to combine Anthropic's AI capabilities with the UK's strengths in R&D and data.⁴⁶

Customer service and virtual assistance

Implementing AI-driven chatbots and virtual assistants to provide efficient customer service and support for improving user experience, providing personalized support and reducing response times

Use cases**Value drivers****Examples**

Implementing AI-driven virtual assistants to simplify and enhance citizen engagement with government services, ensuring efficient, transparent and personalized access to information and assistance

Citizen and end-user experience

Estonia has developed Bürokratt, an AI-powered virtual assistant, to provide a unified channel for its citizens to efficiently access and navigate public services digitally. It simplifies interactions with government agencies at all levels from central to local municipalities, establishes transparent data use, and integrates with proactive services to automatically provide various subsidies and benefits. The government is rolling out Bürokratt 2.0 with advanced training modules and has laid out plans to integrate LLM or GPT models in four stages and tailor it to the needs of municipalities by the end of 2025.⁴⁷

Integrating chatbots with human-like qualities and multilingual support to provide an engaging user experience and allow accessibility for diverse populations

Citizen and end-user experience**Employee experience**

The US City of Amarillo has developed Emma, a GenAI-powered digital human assistant with a built-in personality, and integrated it into the city's website. It has been designed with a human-centered approach and facilitates a conversational interaction with residents, allowing them to ask questions and receive guidance directly. Emma seeks to extend the support for the non-English-speaking population by including support for Spanish, with updates underway for the next five most spoken languages in Amarillo. The chatbot is also being used by the department's employees to address citizens' queries, enhancing their efficiency.⁴⁸

Employing chatbots to streamline access to government procedures, significantly saving time for citizens and reducing bureaucratic complexities

Citizen and end-user experience

The UK government is trialing an AI chatbot, GOV.UK Chat, to streamline navigation across over 700,000 pages on GOV.UK and assist individuals in setting up small businesses and navigating support options. It uses OpenAI's GPT-4o technology to provide personalized, straightforward answers to users' queries about business rules and support, which may be spread across various pages on the government website. The initial trials indicated that around 70% of users found the chatbot helpful.⁴⁹

Category**13****Regulations and guidelines**

Establishing regulations and guidelines to provide ethical use, transparency and accountability, while fostering a digital-ready regulatory environment

Use cases**Value drivers****Examples**

Establishing voluntary guidelines and raising awareness to establish ethical AI implementation and transparency

Risk and resilience

The Australian Taxation Office (ATO) has implemented organization-wide ethical principles for data and AI to ensure the public have confidence in how the ATO collects, manages, shares and uses their data. The agency has data governance processes to maintain accountability and explainability while ensuring human oversight over its use of AI. The ATO educates its staff to raise awareness and ensures AI applications deployed undergo validation and quality checks to reduce risk.⁵⁰

Establishing tools and mechanisms to assess AI systems for biases and provide transparency

Risk and resilience**Strategic service planning**

The Canadian government has undertaken various initiatives for safe and responsible use of AI and GenAI. This includes a directive on automated decision-making that promotes transparency, addresses data bias and provides recourse, with updates every two years after consultations. An Algorithmic Impact Assessment tool has been implemented to assess the impact of automated decisions on citizens, foster transparency and mitigate data biases. The government is also establishing a baseline of minimum standards across departments and agencies by providing guidance, frameworks and guardrails.⁵¹

Enforcing comprehensive legislative framework to govern AI implementation and provide accountability

Risk and resilience

The EU has passed the AI Act, which introduces a multitiered risk approach to AI regulation. It seeks to provide AI systems placed on the European market and used in the EU are safe and respect fundamental rights and EU values. The EU AI Act's rules started to gradually come into effect at the beginning of 2025.⁵²

Category**14****Environmental and sustainability initiatives**

Utilizing AI to support environmental conservation efforts and provide insights into sustainability practices, contributing to CO₂ reduction and the pursuit of net-zero goals

Use cases**Value drivers****Examples**

Supporting the restoration of natural habitats, biodiversity preservation and climate change mitigation

Strategic service planning

The AI for Peatlands initiative, led by DEFRA, uses AI to map and analyze peatlands in the UK. It combines AI4Peat and other data sets with satellite imagery to monitor peat conditions and identify areas needing restoration. The AI algorithms process images to detect peatland features, aiding in precise mapping and targeting of damaged areas for effective restoration. This project allows for more effective targeting of peatland restoration and supports carbon sequestration, flood risk management and biodiversity preservation.⁵³

Advancing sustainable practices such as effective waste management, and reducing emissions

Financial optimization

Lane County in the US is developing an advanced AI-enabled Integrated Materials & Energy Recovery Facility (IMERF), with a US\$155 million budget. It will utilize AI to sort household waste and recyclables from landfill and feature a biogas-producing anaerobic digester from organic waste. The initiative aims to prolong lifespan of the Short Mountain Landfill (the county's biggest source of GHG emissions) and reduce methane emissions, with an estimated economic impact of US\$270 million.⁵⁴

Enhancing access to green financing by enabling data-driven investment decisions in sustainable development projects

Financial optimization**Strategic service planning**

The Monetary Authority of Singapore is leading Project NovA!, which aims to leverage an AI-powered platform to improve green building sustainability and financing. The initiative can access nationwide real estate data from the Building and Construction Authority and will help banks identify green projects, set accurate sustainability targets and combat greenwashing in sustainability-linked loans. The system uses AI for peer benchmarking, real-time performance monitoring and automated documentation processing.⁵⁵

Category**15****Public safety and justice**

Utilizing technologies such as AI and image recognition to bolster law enforcement efforts, provide a safer environment for all citizens and improve efficiency of the legal system

Use cases

Utilizing technologies such as AI and image recognition to enhance crime prevention measures and supporting police patrols to provide a safer environment for citizens

Enhancing legal research efficiency via faster case summarization and improve analysis for lawyers by integrating GenAI tools

Using AI in border surveillance and preventive policing to enhance early intervention responses to emerging threats

Value drivers**Risk and resilience****Employee experience****Productivity and efficiency****Strategic service planning****Examples**

The Japanese National Police Agency plans to deploy AI-powered drones in disaster-hit areas to identify suspicious individuals. The drones will be equipped with AI and cameras, and can autonomously identify and notify operators of suspicious activities. This aims to support policing in areas affected by natural disasters such as earthquakes and tsunamis.⁵⁶

Singapore has improved the efficiency of its legal research process by developing GPT-Legal, a new LLM for legal case summarization that is integrated into the country's leading portal for legal research, information and transactions called LawNet. The tool allows lawyers to conduct research more efficiently and derive better analysis from past cases while adopting a cautious approach to data hallucination. It has reduced the time taken to summarize cases from one day to 10 minutes.⁵⁷

Australia's Department of Home Affairs has undertaken Targeting 2.0, an initiative to enhance ML models for operational and strategic decision-making, and border security, by integrating new crime patterns identified both by frontline officers and data science into the system in real time. This continuous updating process improves nationwide detection capabilities, leading to early interventions and preventing social harm, with savings amounting to billions of dollars from FY23.⁵⁸

Category**16****Policy and strategy development**

Applying AI to inform and optimize the creation and execution of government policies, involving the strategic use of GenAI for crafting policies, employing analytics to measure their impact, and enhancing agility in response to dynamic economic and societal shifts

Use cases

Exploring AI use in the creation and execution of government policies, and employing analytics to measure their impact

Using AI to understand and predict shifts in political landscapes and policymaking, informing more proactive and strategic government decision-making

Value drivers**Strategic service planning****Strategic service planning****Examples**

Australia's Department of Home Affairs plans to develop portfolio analytics so that all program and policy areas deliver their intended impact. This includes monitoring and measuring policy efficacy and detecting unintended impacts.⁵⁹

The U.S. Department of State's Bureau of Conflict and Stabilization Operations is using AI to analyze political dynamics, map the opinions of major decision-makers and organizations on key issues, and understand who is influencing these changes. This is assisting the government in predicting how its policy positions might evolve over time.⁶⁰

Footnotes

1. Sanz Sáiz, Beatriz; Cosgrove, Andrew; Diasio, Dan, "How a license to lead can transform human potential in an AI world", EY, 09 April 2025
2. Rich Gagnon, CIO, The City of Amarillo, Texas, US, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 06 December 2024
3. Alex Butler, Executive Director for Digital Technology, Citizens Advice, UK, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 26 September 2024varotsis, Andreas, "Transforming Civic Engagement with Caddy", AI.GOV.UK, 13 March 2025, <https://ai.gov.uk/blogs/transforming-civic-engagement-with-caddy/>
4. Carole Leclerc, Innovation and Digital Director, Urssaf, France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 14 October 2024; Urssaf press release, AI at the service of users: Damien lenteil and Thomas Cazenave unveil the first achievements of Urssaf - Urssaf.org, 24 May 2024
5. Senior Public Official, Economic Growth and Better Regulation Victoria, Australia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 31 July 2024
6. Senior Public Official, Australian Tax Office (ATO), interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 16 July 2024; "How we use data and analytics," Australia Taxation Office website, 12 August 2024, <https://www.ato.gov.au/about-ato/commitments-and-reporting/information-and-privacy/how-we-use-data-and-analytics/>, © Commonwealth of Australia
7. Smith, Paul, "AI auditors let the ATO find millions in unpaid tax and super," The Australian Financial Review, 26 February 2024, <https://www.afr.com/technology/ai-auditors-let-the-ato-find-millions-in-unpaid-tax-and-super-20240217-p5f5r4>, © Copyright 2025 The Australian Financial Review.
8. Achille Lerpiniere, Chief Information & Technology Officer, Région Île-de-France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 12 September 2024
9. Sanz Sáiz, Beatriz; Cosgrove, Andrew; Diasio, Dan, "How a license to lead can transform human potential in an AI world", EY, 09 April 2025
10. "The Future of Jobs Report 2025", World Economic Forum, 07 January 2025
11. Mikkel Hemmingsen, Chief Executive Officer, Sund & Bælt Holding AS, Denmark, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 28 August 2024
12. Lucy Poole, General Manager, Strategy, Planning and Performance Division at the Digital Transformation Agency, Australia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 23 October 2024
13. "Jahiz - Future government talents," The United Arab Emirates' Government portal, <https://u.ae/en/information-and-services/jobs/training-and-development/future-skills/jahiz-future-government-talents>
14. "Jahiz UAE's digital platform for upskilling all federal government talents with future skills," Emirates News Agency-WAM, 17 November 2022, <https://www.wam.ae/en/details/1395303102696>
15. Senior Public Official, Ministry of Education, UAE, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 27 August 2024
16. Keisuke Murakami, Director General, Digital Agency, Japan, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 12 July 2024
17. "Department of Homeland Security Unveils Artificial Intelligence Roadmap, Announces Pilot Projects to Maximize Benefits of Technology, Advance Homeland Security Mission", U.S. Department of Homeland Security website, 18 March 2024, <https://www.dhs.gov/archive/news/2024/03/18/department-homeland-security-unveils-artificial-intelligence-roadmap-announces>
18. Dr Laura Gilbert, Head of Data & AI, 10 Downing Street, UK, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 06 August 2024
19. Senior Public Official, DREES, France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 24 October 2024
20. "WHO unveils a digital health promoter harnessing generative AI for public health", WHO website, 02 April 2024, <https://www.who.int/news/item/02-04-2024-who-unveils-a-digital-health-promoter-harnessing-generative-ai-for-public-health>, © 2025 WHO.
21. Ott Velsberg, Government Chief Data Officer, Ministry of Economic Affairs and Communications, Estonia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 03 July 2024
22. Senior Public Official, Large public IT service provider, Germany, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 21 November 2024
23. "The Judiciary integrates Artificial Intelligence (AI) into its processes.", Adams & Adams website, 12 April 2024, <https://www.adams.africa/adams-news/the-judiciary-integrates-artificial-intelligence-ai-into-its-processes/>, Copyright 2001-2025 Adams & Adams.; Robert, Kajage, "Tanzania's court system goes for AI solutions", Africa legal, <https://www.africa-legal.com/news/tanzanias-court-system-goes-for-ai-solutions/102631>, © Copyright 2024, Africa Legal. All rights reserved. Privacy policy.
24. Florian Delezenne, Head of Department, DINUM, France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 4 October 2024
25. Alar Laaneleht, Bürokratt Services Project Manager, Ministry of Economic Affairs and Communications, Estonia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 12 July 2024
26. Anita B, Bandy Emily Haffner Maya C, suárez, "AI-Enabled compliance: Keeping Pace with the Feds", Spring 2024, Skadden, Arps, Slate, Meagher & Flom LLP and Affiliates website, AI-Enabled Compliance: Keeping Pace with the Feds Insights! Skadden: Arps, Slate, Meagher & Flom LLP, accessed 04 June 2025
27. Teale, Chris, "City looks to enhance customer experience with data analytics", Route Fifty, 15 August 2023, <https://www.route-fifty.com/digital-government/2023/08/city-looks-enhance-customer-experience-data-analytics/389440/>; "Engaging residents and employees in their city's future", Qualtrics, <https://www.qualtrics.com/customers/city-of-corona/>, © 2025 Qualtrics.
28. Senior Public Official, Government of Canada, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 6 August 2024
29. Sébastien Renaud, Head of Unit for HR Digital Solutions & Business Process Efficiency, European Commission, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 3 September 2024
30. Dawson, Amy, "How Barnsley Council is transforming local social care with AI", Microsoft, 30 April 2024, <https://news.microsoft.com/source/eMEA/features/how-barnsley-council-is-transforming-local-social-care-with-ai/>, © Microsoft 2025
31. John Bottega, President of EDM Council, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?; "DCAM Framework", EDM Council, <https://hub.edmcouncil.org/s/documentrequest?docnum=doc000008>, © 2025 EDM Council, all rights reserved, 27 August 2024
32. Jason Owusu, Chief Data & Digital Officer, Department of Transport & Planning Victoria, Australia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 25 July 2024
33. Senior Public Official, DREES, France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 24 October 2024
34. Dr Shen Hwee Chua, Chief Data Officer, Energy Market Authority, Singapore, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 5 August 2024
35. Senior Public Official, Ministry of Foreign Affairs, UAE, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 11 October 2024
36. Lynne-Smith, Jena, "Using AI to Address and Prevent Chronic Homelessness in Ottawa", Carleton University, 28 May 2024, <https://newsroom.carleton.ca/story/ai-chronic-homelessness-in-ottawa/>, © Copyright 2025.
37. Josh Kuntz, Chief Information Security Officer, Texas Department of Licensing and Regulation, USA, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 9 December 2024
38. Richard Ruot, AI Director, France Travail, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 21 October 2024
39. Tetsuya Sakashita, Managing Director, Japan Institute for Promotion of Digital Economy and Community (JIPDEC), interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 2 August 2024
40. Senior Public Official, Ministry of Foreign Affairs, UAE, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 11 October 2024
41. Jason Owusu, Chief Data & Digital Officer, Department of Transport & Planning Victoria, Australia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 25 July 2024
42. Mikkel Hemmingsen, Chief Executive Officer, Sund & Bælt Holding AS, Denmark, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 28 August 2024
43. Achille Lerpiniere, Chief Information & Technology Officer, Région Île-de-France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 12 September 2024
44. "Japan, U.S. to Collaborate on Developing AI Specialized for Scientific Research; Supercomputers Fugaku, Aurora to be Utilized," The Yomiuri Shimbun, 12 February 2024, <https://japannews.yomiuri.co.jp/politics/politics-government/20240212-168320/>, © 2025 The Japan News - By The Yomiuri Shimbun; Choudhary, Sneha, "Allies in AI: Japan and the U.S. to develop tech for advanced scientific research," GMI post, 04 March 2024, <https://gmipost.com/allies-in-ai-japan-and-the-u-s-to-develop-tech-for-advanced-scientific-research-2/>, © 2024 Global Media Post Limited
45. Florian Delezenne, Head of Department, DINUM, France, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 4 October 2024
46. "Anthropic signs MOU with UK Government to explore how AI can transform UK public services," Anthropic website, 14 February 2025, <https://www.anthropic.com/news/mou-uk-government/>, © 2025 Anthropic PBC.
47. Alar Laaneleht, Bürokratt Services Project Manager, Ministry of Economic Affairs and Communications, Estonia, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 12 July 2024
48. Rich Gagnon, CIO, The City of Amarillo, Texas, US, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 06 December 2024
49. "Government's experimental AI chatbot to help people set up small businesses and find support," Gov.uk website, 05 November 2024, <https://www.gov.uk/government/news/governments-experimental-ai-chatbot-to-help-people-set-up-small-businesses-and-find-support>, © Crown copyright.
50. Senior Public Official, Australian Tax Office (ATO), interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 16 July 2024
51. Stephen Burt, Chief Data Officer, Government of Canada, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 29 August 2024
52. "Historic Timeline," EU Artificial Intelligence act website, <https://artificialintelligenceact.eu/developments/>, © 2025 Future of Life Institute
53. Sue Bateman, Chief Data Officer, DEFRA, UK, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 8 October 2024
54. Weeldreyer, Cindy, "Special Report: Artificial intelligence may lead county's waste processing", Cottage Grove Sentinel, 17 April 2024, Updated 11 February 2025, https://www.cottagesentinel.com/news/special-report-artificial-intelligence-may-lead-county-s-waste-processing/article_bb6965c2-fab8-11ee-99cb-0fc8a1161c16.html, © 2025 Cottage Grove Sentinel.
55. Huang, Claire, "AI project on sustainable buildings here to have access to green real estate data," The Straits Times, <https://www.straitstimes.com/business/ai-project-on-sustainable-buildings-here-to-have-access-to-green-real-estate-data>, © 2025 SPH Media Limited.
56. "Govt to Develop AI-Equipped Drones to Identify Suspicious People in Disaster-Hit Areas," The Japan News, 25 August 2024, <https://japannews.yomiuri.co.jp/science-nature/technology/20240825-206985/>, © 2025 The Japan News - By The Yomiuri Shimbun.
57. Public Official, IMDA, Singapore, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 27 August 2024
58. Pia Andrews, Home Affairs Chief Data Officer, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 10 July 2024
59. Pia Andrews, Home Affairs Chief Data Officer, interviewed by Oxford Economics, How can the transformative power of data and AI drive greater public value?, 10 July 2024
60. "Department of State AI Inventory 2024," US Department of State website, 13 December 2024, <https://2021-2025.state.gov/department-of-state-ai-inventory-2024/>

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