Microsoft

Empowering governments to lead in the AI era

A national strategic framework

Executive summary

September 2024

This strategic framework outlines a comprehensive roadmap designed to seamlessly integrate artificial intelligence (AI) into national infrastructure, to drive innovation, stimulate economic growth, and revolutionize public services. Its visionary approach enables governments to navigate the complexities of AI adoption and leverage its potential for societal enhancement and economic growth. This strategy can easily be adapted to align with each country's unique economic, societal, and environmental situation, to help every government make significant steps toward achieving ambitious national development goals.

Meeting today's government challenges




Lack of a modernized national AI strategy	Governance and regulatory dilemmas	Workforce transition	Data privacy and security	Building public trust in AI
Most national AI strategies were formulated before recent advancements such as generative AI. With the rapid, widespread adoption of AI in various sectors, they may be outdated.	Governments must ensure the responsible use of AI and establish flexible regulatory frameworks to keep up with AI advancements.	AI can automate many everyday tasks, transforming job roles; governments need to develop strategies to equip the workforce with AI skills.	As AI becomes more integrated into critical infrastructure, safeguarding data privacy and ensuring cyber resiliency is paramount.	Governments must work to educate the public on the benefits and risks of AI, involve stakeholders in policymaking processes, and ensure transparency and accountability in AI applications.

> Artificial intelligence (AI) is the **defining technology of our times**. The future we will invent is a choice we make, not something that just happens."
>
> *– Satya Nadella, Microsoft CEO*

Why should governments adopt a national AI strategy?

AI is evolving rapidly. With the introduction of generative AI, it's critical that governments create or modernize their national AI strategies to establish themselves as leaders, demonstrating their nation's ability to adapt and innovate in the AI era.

Countries should not only aim to keep pace, but to set benchmarks for effective AI utilization and governance. A national AI strategy is a unique opportunity for every government to position itself as a proactive, forward-thinking leader in leveraging AI for holistic national development.

Each government also needs to commit to regularly updating and adapting its strategy, focusing on strategic objectives, regulatory frameworks, and robust governance, while ensuring continuous execution and monitoring. By embracing this path, governments will be better placed to ensure a prosperous and sustainable future for their people in the changing global landscape.

Lack of a modernized national AI strategy

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A holistic approach to AI adoption

The national strategy should offer a comprehensive framework that effectively harnesses the transformative potential of AI while mitigating risks and maximizing benefits.

AI is the greatest opportunity in global economic growth

up to

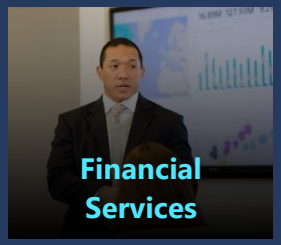
$81B

AI is projected to save annually in energy costs by 2025 through improved grid management and predictive maintenance[1]

up to

$3.8T

the expected annual value that AI-driven automation could generate in manufacturing by 2030[2]



56%

of financial services firms have implemented AI in risk management, and 52% in fraud detection as of 2023[3]

15-20%

increase in revenue that AI-driven personalization can lead for retailers[4]

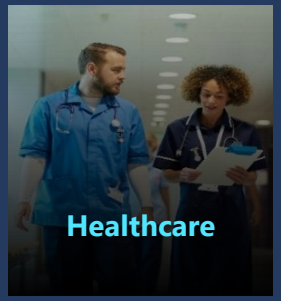
By up to

30%

AI could enhance government efficiency, leading to savings of up to $1.2 trillion globally by 2030[5]

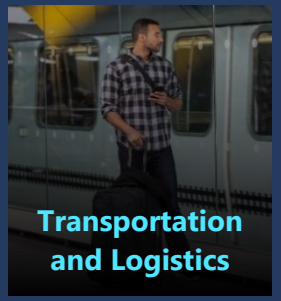
$1.4T

the expected growth of smart city AI market by 2027, with AI optimizing urban planning, traffic management, and energy consumption[6]



44.9%

CAGR growth from 2021 to 2026, the AI healthcare market is projected to reach $45.2 billion by 2026[7]



By 20-50%

AI is projected to reduce supply chain forecasting errors[8]

$1.6T

Expected growth of autonomous vehicle market, heavily reliant on AI[9]

[1] Why AI and energy are the new power couple – Analysis – IEA
[2] intro-implementing-ai-manufacturing.pdf (pwc.com)
[3] Navigating the transformative landscape of AI in financial services | Refinitiv Perspectives
[4] Generative AI in retail: LLM to ROI | McKinsey
[5] Accenture – AI in Government: Accenture Technology Vision 2023: Generative AI to Usher in a Bold New Future for Business, Merging Physical and Digital Worlds
[6] Smart Cities Market Share, Forecast | Growth Analysis & Opportunities [2030] (marketsandmarkets.com)
[7] Artificial Intelligence (AI) in Healthcare Market Size, Share, Industry Report, Statistics - 2032 (marketsandmarkets.com)
[8] Stronger forecasting in operations management—even with weak data | McKinsey
[9] Autonomous Vehicle Market Size, Share, Trends | Report [2030] (fortunebusinessinsights.com)

The six pillars of our national AI strategy framework

The broad structure of the national AI strategy framework comprises six pillars, which are designed to guide leaders through the whole process of conceptualizing, assessing, planning, and implementing AI into key sectors, starting with central government.

Vision for AI

This pillar encapsulates the foundational elements of the leadership and the strategic utilization of AI to catalyze global competitiveness, economic growth and enhance social prosperity.

Current AI Landscape

This pillar focuses on understanding and evaluating country-specific current AI capabilities and potential through a comprehensive AI Maturity Model and SWOT analysis.

Strategic Objectives Definition

This pillar emphasizes the importance of aligning strategic objectives for the government's AI initiatives with the overarching governmental vision, ensuring that each goal directly contributes to the broader national agenda.

Sectoral Transformation through AI

This pillar aims at the strategic integration of AI technologies across various sectors to revolutionize service delivery, operational efficiency, and sectoral outcomes.

Regulatory Framework and Governance

This pillar is dedicated to establishing a comprehensive regulatory framework and governance model that promotes responsible AI practices, and ensures data privacy and security.

National AI Strategy Implementation

This pillar combines critical steps for executing the National AI strategy, including enhancing AI infrastructure, workforce upskilling, stakeholder collaboration, and strategic roadmap development. It emphasizes ongoing monitoring and adapting the AI initiatives to ensure they remain effective and aligned with national goals.

The time is NOW!

Exploring the key benefits of AI-powered government

	**Global advancement**	Adapting the national AI strategy to embrace generative AI will empower governments to establish leadership in AI innovation and foster collaboration in international AI research and policy initiatives.
	**Economic and employment growth**	AI technologies can stimulate market growth and employment. A report from the McKinsey Global Institute on generative AI and productivity estimates that generative AI could generate value equivalent to $2.6 trillion to $4.4 trillion in global corporate profits annually. Additionally, 50% of organizations expect to see job growth due to AI advancements.
	**Enhanced, personalized services**	AI improves efficiency and effectiveness in public services such as healthcare, education, and social welfare through personalized services and predictive analytics. Data-driven insights also improve decision-making processes in critical areas, improving services and reducing costs.
	**Efficient government operations**	AI and automation present a significant opportunity for operational efficiencies. Generative AI in particular could lead to $1.75 trillion in productivity gains by 2033.

9 key sectors to target with AI-driven transformation

For each government, it's vital that leaders select the right sectors to prioritize in their national strategy. This will depend on the country's most active industries, long-term goals, and existing initiatives.

In addition to the core framework, our guide identifies nine sectors that government leaders should assess as part of their strategy planning:

National and local government

Effective transformation begins within the government's own operations. AI could have a key role to play in streamlining government workflows and improving public services while helping leaders balance their budgets.

Healthcare

AI is already establishing itself as a core technology for healthcare systems, with a growing market for technologies that aid medical professionals in diagnosing and treating illnesses, leading to better patient outcomes.

Education

Many educational technologies—including Microsoft solutions—already feature some form of AI. This will likely expand in the coming years to alleviate educators' workloads, personalize learning, and support AI skills for an evolving workforce.

Energy

There are wide-ranging applications for AI in the energy sector, from revolutionizing traditional oil and gas processes to supporting helping leaders meet sustainability and decarbonization goals. Predictive analysis on a large scale will likely deliver the greatest impact.

Finance

In an unstable and rapidly changing global economy, AI can help public sector finance agencies become more adaptable and resilient. The ability to extract and analyze data from a greater range of sources will support long-term decision-making while maintaining flexibility.

Public safety and justice

AI can modernize key public safety and justice infrastructure, accelerating decision-making and removing bottlenecks to help teams respond to changing needs within their communities—keeping people safe and helping them thrive.

Transportation and infrastructure

As people change the way they navigate public spaces, AI can help leaders adapt their asset maintenance plans, traffic management processes, sustainability strategies, and more to ensure transportation networks continue to serve communities' needs.

For improvements to be equitable and resilient in the long term, urban and rural environments need to benefit from AI applications. It's vital that leaders assess the needs of individual communities and select AI technologies that enhance their quality of life.

Defense and intelligence

AI can support decision-makers in defense and intelligence agencies as they strategize and respond to the constantly changing global risk landscape. Rapid adaptability is vital if leaders want to stay ahead of bad actors.

Sustainability

Most countries have set out ambitious targets for sustainability and decarbonization. AI can help meet these goals by extracting insights from complex sustainability information, accelerating the development of sustainability solutions, and equipping the sustainability workforce with tools that help them work more efficiently and effectively.

In the full guide, you will discover a deep dive into each sector, highlighting the areas where AI could make the most significant impact—and important considerations for industry leaders.

Microsoft is your partner in the national AI transformation

Next steps

In our *National AI Strategic Framework*, we have developed a comprehensive roadmap designed to support governments worldwide in crafting robust national AI strategies. This guide helps nations position themselves as leaders in AI innovation and application, with advice that's shaped by projects Microsoft has worked on alongside the global public sector community over many years.

You can **explore the full roadmap, including industry-specific advice, here.**

Recognizing that the journey toward digital transformation, including the pivotal role of AI, is continually evolving, it's crucial that we enable ongoing dialogue between industry stakeholders.

To facilitate this, we are committed to hosting a series of workshops with public sector leaders. These workshops will offer a platform for in-depth discussions on each key pillar outlined in the framework, helping governments assess their position on the global stage, define their AI goals, and construct or adapt their national AI strategy. Combining a global perspective on the AI technology landscape from Microsoft with collaborative work alongside fellow government decision-makers, these sessions will be useful for benchmarking, sharing ideas, and accelerating progress.

If you are interested in joining our workshops, or would like to learn more, reach out to your Microsoft sales representative or the **Worldwide Public Sector Team**.

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