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Future-Proofing Public Service:
5 AI Imperatives for Singapore

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Singapore's AI Vision for the Public Sector

Singapore's National AI Strategy 2.0 (NAIS 2.0) takes a bold step forward, aiming to establish AI not just as a domestic advantage but as a force for global good. This ambitious vision hinges on transforming public services and operations through AI.

The government essentially implements a two-pronged approach to achieve this goal. Firstly, they spearhead internal initiatives, ensuring key agencies leverage AI effectively. Secondly, they actively foster public-private partnerships. These partnerships are especially crucial for optimising business processes and improving citizen lifecycle management. This not only improves efficiency and service delivery but also creates a robust ecosystem for responsible AI development and deployment.

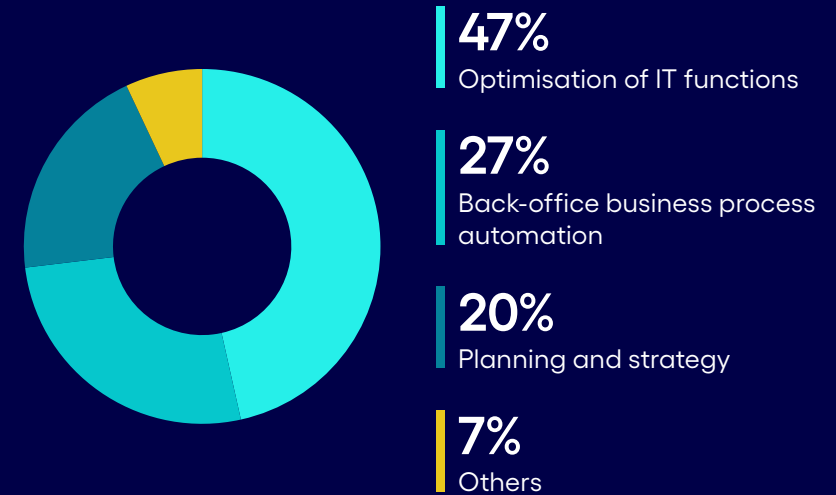# Public Sector in Singapore is Embracing AI for Greater Efficiency

Singapore's Public Sector is seeing some early successful AI applications, and leaders consider it vital for the future.

9/10 are seeing benefits from AI deployments.

7/10 consider GenAI critical/ extremely critical to continued success.

Public-facing AI solutions should be approached with caution. Nearly half of AI applications are focused on IT functionalities, emphasising internal process optimisation. Prioritising back-office process automation and planning shows a strategic intent to use AI for internal improvements before fully integrating it into public services.

Key Areas of AI Applications in Singapore's Public Sector

47% Optimisation of IT functions

27% Back-office business process automation

20% Planning and strategy

7% Others

Q: Where is AI being used most in your organisation?
N=60; Source: Ecosystm Digital Enterprise Study, 2024

> In citizen services, even a minor misstep can be disastrous. Reputation and finances are both on the line. We have to be a 100% sure of our chatbots and other AI applications before rolling them out publicly.

Sr Director (Data Governance), Public Sector Agency, Singapore

Despite Singapore's National AI Strategy and government directives, Ecosystm research reveals a significant gap – only 13% of Public Sector organisations consider themselves AI-ready. What factors are hindering them from fully embracing AI?

Here are five AI directives for public sector leaders.

#1 Building a Strategic AI Roadmap: From Pilot to Implementation

Many organisations, including those in Singapore's Public Sector, often create scattered proof-of-concepts (POCs) without a clear AI strategy. This ends up stretching resources and delivering minimal business value. While GovTech and other agencies offer excellent guidance, it's crucial to have an organisation-specific AI roadmap.

The lack of a strategic roadmap at the agency level has implications.

60%

of Singapore's Public Sector organisations struggle to identify high-value use cases for AI.

A lack of clear goals and direction can lead to scattered efforts and limited value.

A significant 60%

are considering pausing or reducing their AI investments in 2024.

This suggests a growing uncertainity and disillusionment with AI's potential impact.

ECOSYSTM OPINION:
Create a Value-Driven AI Journey

→ **Align AI Initiatives with Strategic Objectives.** Ensure each AI project directly addresses a specific key outcome.

→ **Identify the Right Use Cases.** Focus on applications that leverage organisation's unique goals, data, and skillsets.

→ **Measure Success.** Set clear metrics to track progress and assess the impact of AI implementations.

#2 Beyond Innovation: Measuring the True Value of AI

Singapore's Public Sector organisations struggle to measure AI impact. The lack of return on investment (ROI) metrics hinders justifications for continued investment. While 67% focus on process innovation – a good sign for long-term impact – it risks becoming "innovation for innovation's sake."

How Singapore's Public Sector Measures AI Impact

67%	33%
Innovation of process/ services	Measured against business KPIs

Q: How does your organisation measure the effectiveness of AI?
N=60; Source: Ecosystm Digital Enterprise Study, 2024

No organisation is effectively measuring the impact against internal or external strategic objectives. This makes it nearly impossible to showcase the true ROI of AI initiatives.

ECOSYSTM OPINION:
Unlock the Value of AI

Rigorously Measure ROI. Develop frameworks to assess cost savings, productivity gains, efficiency benefits, and citizen satisfaction from AI projects.

Make AI Decisions Data-Driven. Leverage data to inform future AI initiatives and optimise existing ones for continuous improvement.

Prioritise Transparency & Communication. Clearly showcase AI's value with data-driven reporting, demonstrating tangible benefits to stakeholders.

#3 Breaking Down Silos:
A Collaborative AI Ecosystem

While Singapore's Public Sector prioritises cross-agency collaboration, data suggests a gap between policy and practice. A mere 20% of leaders view collaboration as essential for agencies. This highlights the need to cultivate a more collaborative culture. Inter-agency cooperation is crucial for tackling complex projects like AI implementations.

Collaboration, not mandates, should drive AI initiatives. Successful AI implementations require cross-agency and cross-functional collaboration to ensure alignment on critical technical and business requirements.

ECOSYSTM OPINION:
Collaborate for Better Data & Regulations

01 **Track & Reward Collaboration.** Implement metrics (such as communication, project completion, stakeholder satisfaction) to incentivise.

02 **Facilitate Data Sharing.** Shape data sharing agreements to enable data-driven collaboration, especially for AI projects requiring diverse datasets.

03 **Liaise with Regulators to Shape Governance.** Foster frameworks that support each agency's critical path to AI success.

Singapore Public Sector: Collaboration Perceptions

7%
Agencies have minimal interaction with each other

40%
Agencies collaborate on large projects

33%
Some agencies collaborate with each other regularly

7%
Cross-agency collaboration is the norm

13%
Collaboration occurs internally, inter-agency, and externally

Q: How do organisations collaborate within the industry?
N=60; Source: Ecosystm Digital Enterprise Study, 2024

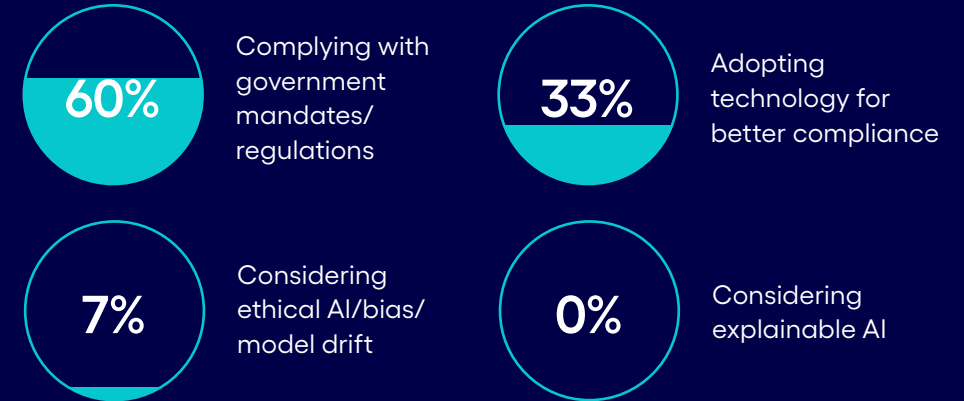# #4 Strong Foundation: Making Data Governance the Bedrock of AI

Singapore launched AI Verify in 2022, the world's first AI Governance Testing Framework, to help companies demonstrate responsible AI practices. However, 53% of Public Sector leaders in Singapore still struggle with data governance. This is primarily due to over-reliance on external mandates rather than developing their own internal data control frameworks and guardrails.

ECOSYSTM OPINION:
Build the Right Data Governance Framework

01 **Focus on Trust.** Ensure AI models work on high-quality, unbiased data leading to reliable and ethical outcomes.

02 **Promote Security and Transparency by Design.** Safeguard sensitive information and promote clear communication on how data is used in AI, fostering trust and compliance.

03 **Develop Dual Expertise.** Equip employees with legal and technical skills to navigate data risks and implement responsible AI practices.

Focus of Data Governance in Singapore's Public Sector

60% Complying with government mandates/regulations

33% Adopting technology for better compliance

7% Considering ethical AI/bias/model drift

0% Considering explainable AI

Q: Where is AI being used most in your organisation?
N=60; Source: Ecosystm Digital Enterprise Study, 2024

It is important to strike a balance to prevent governance from hindering agility and innovation.

> " Broadly classifying all generative AI as 'high-risk', or regulating AI systems on the condition that they must not cause any harm, can be overly restrictive and will inevitably lead to less innovation.
>
> Lawrence Wong, PM Singapore

#5 Preparing for Change: Upskilling for AI Disruption

Singapore's Public Sector faces an AI talent gap – only 20% have advanced AI/ML skills. The government's investment of SGD 20M over 3 years to build AI capabilities will have a positive impact, empowering agencies to grow internal AI expertise for long-term autonomy. This will allow them to adapt and innovate as AI evolves.

Singapore Public Sector: Distribution of AI Skills

33%
Basic data reporting and visualisation skills

27%
Intermediate analytics skills

20%
Basic understanding of AI/ML

13%
Advanced AI/ML skills

7%
Deep AI/ML expertise in the data science team

Q: What is the level of AI/analytics skills in your organisation?
N=60 ; Source: Ecosystm Digital Enterprise Study, 2024

AI disrupts roles across business and tech teams, requiring cross-organisational upskilling. Initial dependence on external partners to bridge the gap remains likely.

ECOSYSTM OPINION:
Upskill for Impact

→ **Align with AI Strategy.** Develop a structured approach to upskill teams in areas aligned with the organisation's AI goals.

→ **Upskill Traditional IT Roles.** Increase overall effectiveness by integrating AI training for infrastructure, cybersecurity, and development teams.

→ **Boost AI Literacy.** Equip business owners to analyse data, guide tech teams, and leverage AI for impactful results.

Ecosystm Opinion

Singapore's Public Sector has scored early wins with AI, boosting citizen engagement and employee productivity.

Singapore residents can now report municipal issues like littering or illegal parking via an AI-powered chatbot on social media that streamlines the process by automatically categorising complaints, extracting key details, and directing reports to the appropriate agency. Pair, a secure AI assistant powered by ChatGPT, helps Public Sector employees brainstorm, draft, analyse, code, and boost productivity.

Singapore's Public Sector has a long runway ahead for AI, with early wins hinting at future success. Each agency holds significant potential to leverage AI, but the right tech partners are crucial. These partners facilitate co-creation, supporting agencies through their ideation, implementation, and change management journeys.

Empowering Singapore for the Future

Cognizant has a deep partnership with the Singapore public sector, serving as:

Designers
We craft innovative solutions to address government agency needs.

Builders
We bring those solutions to life through development and implementation.

Ongoing Support Providers
We ensure the continued effectiveness of our solutions.

Recognising data's potential to transform citizen services, we leverage a technology-agnostic approach to create impactful solutions that benefit all. These projects significantly improve efficiency for both Singapore residents and businesses.

Beyond solutions, Cognizant actively fosters a tech-savvy workforce through Cognizant Outreach:

→ **Workshops**
We equip individuals with in-demand tech skills through workshops.

→ **Career Development**
Our programs open doors to new career opportunities.

→ **Diverse Training**
We offer a range of training programs, from Excel to coding and even cutting-edge Generative AI.

Our commitment is further reflected by:

01 "Digital for Life Champion" award from IMDA

02 Fundraising efforts for the President's Challenge at the Istana Open House

Cognizant views itself as a catalyst for leveraging technology's potential to create a better future. We believe in nurturing local talent – a core aspect of our global mission. In 2024, we aim to amplify our social impact through Synapse, our skilling initiative. This program focuses on enhancing human capabilities by harnessing new technologies and Generative AI for the benefit of the Singaporean community.

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