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AI-POWERED CITIES OF THE FUTURE

Asia-Pacific report

EMPOWERING APAC CITIES THROUGH AI

Ian Krieger

Innovation Officer, APJ, ServiceNow

Wherever you travel today, there are opportunities to stay connected. However, upon closer inspection — particularly when exploring a city - you may observe that many of the elements enabling such connected cities are not as effective as they seem.

Globalization, artificial intelligence (AI) and digital transformation are changing the way cities work - no one can afford to work in isolation anymore and citizens expect better connected services. From intelligent transportation systems, to connected healthcare - AI will expand these possibilities into automated actions and inform better decision making to deliver continuous improvement for the benefit of citizens.

This report is designed to provide Asia Pacific (APAC) cities with a roadmap for their AI journeys. It provides valuable insights into how cities are drawing on AI and other new technologies to redefine how they operate and thrive in the APAC region.

Section 1:

THE RISE OF THE AI-POWERED CITY

THE AI IMPERATIVE FOR APAC CITIES

Artificial intelligence is revolutionizing how cities in the APAC region analyze data, create content, and perform tasks, allowing them to boost productivity, drive efficiencies, and better meet the needs of residents and citizens.

In the future, AI will likely transform most urban services, from infrastructure and transportation to public safety, health, and the environment. The rise of generative AI (GenAI) and Agentic AI will broaden AI impact across businesses and communities in APAC.

Joining forces to analyze AI usage in cities

To learn how AI will reshape cities, ServiceNow, Deloitte, NVIDIA, and ThoughtLab came together to study AI city investments and practices across 250 cities. Of those cities, 49 were in APAC, providing a rich sample for benchmarking urban AI approaches within the region and comparing them with AI strategies from other regions. The research also includes qualitative interviews with exemplar cities, such as Singapore, and AI experts in APAC.

This report, prepared by ServiceNow and ThoughtLab, provides a regional perspective on the larger, global research. It is designed to provide city leaders in the region with insights into how to transform their cities through the responsible use of AI.

OVERCOMING REGIONAL CHALLENGES

The APAC region is full of many different cultures, languages, socioeconomic conditions, and geophysical characteristics. While many parts of the region have experienced fast growth, income inequality remains high. Two reasons for the rising use of AI in the region are its effectiveness in addressing the diverse array of challenges that cities face and ability to improve everyday living.

Here are the top challenges cited by cities within different APAC sub-regions:

- **South Asia:** Rapid urbanization across highly populated, poorer cities in the Indian subcontinent has led to a host of challenges, from high pollution, crime, and public health concerns to inadequate transportation and aging infrastructure.
- **Southeast Asia:** With their vulnerability to natural disasters and high pollution, cities in Southeast Asia rate climate change and pollution as top challenges. Economic disparities and export dependency can cause weak economies, funding shortages, aging infrastructure, and homelessness.
- **East Asia:** Rapid industrialization and urbanization have led to severe pollution in cities such as Beijing and Seoul, which can also have serious impacts on public health. Rapid urbanization is also contributing to issues of inadequate transportation and a lack of affordable housing.
- **Oceania:** Because of the high cost of living in cities such as Sydney, Melbourne, and Auckland, affordable housing and income inequality are major pain points. Cities in this region also are highly sensitive to challenges related to climate change and public health.

> **While the challenges differ in each city and country in the region, the real opportunity for an AI-powered city is to redefine how a city delivers services to citizens.**
>
> **An AI-powered city holds the potential to support each citizen through their significant life milestones and day-to-day living to have a positive impact and improve quality of life.**

—Nick Herbert

Global Public Sector Executive Director, ANZ, ServiceNow

ACROSS APAC CITIES, THE AI RACE IS ON

In an effort to address key challenges, cities across APAC are sprinting to adopt AI, with many seeing this technology as a driver of greater productivity and efficiency and, ultimately, economic growth and competitiveness. Singapore, for one, plans to invest more than S$1 billion in AI over the next five years to position itself as a global AI business and innovation hub. Sydney, Shanghai, Tokyo, and Seoul are some of the others following suit.

The rise of GenAI

GenAI will be a game changer for cities in APAC. Unlike earlier forms of AI, GenAI will empower cities to draw on vast sets of data in any format, easily retrieve information, and generate content and analysis instantaneously.

Agentic AI

Agentic AI will go further, augmenting this ability by enabling AI technologies to take actions on information without requiring constant human attention.

APAC cities are embracing AI to supercharge smart city initiatives.

67%

are widely or selectively using AI today

94%

will be widely or selectively using AI in three years

Most APAC cities are already on their GenAI journeys.

59%

of cities are now using or piloting GenAI

3x

Increase in cities widely or selectively using GenAI over the nex three years—from 22% to 68%

> **One of the biggest opportunities for AI is its ability to reach the unreached. Now, even in more impoverished areas, everyone has smartphones. Technology, and particularly AI, can help fill the gaps, enabling cities to leapfrog over some of the challenges of limited infrastructure to bring services and resources to the people who need them most.**

—Jan Morgenthal
Chief Transformation Officer, Asia Pacific and Japan, ServiceNow

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APAC CITIES LEAP AHEAD OF OTHER REGIONS IN AI USE

Cities in APAC are ahead of their peers in other regions in deploying AI and plan to extend their AI lead over the next three years. For example, 94% of APAC cities expect to make use of AI, compared 79% of cities in the rest of the world.

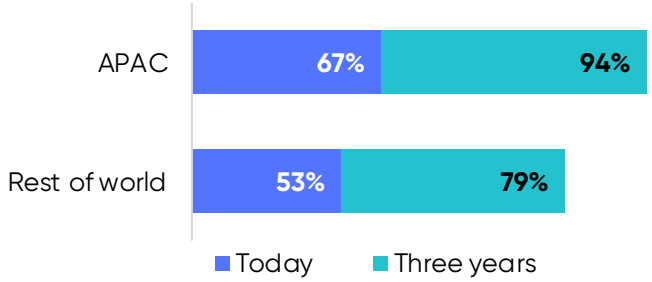
Growing focus on GenAI

APAC cities are also jumping ahead with GenAI. About 22% are already using GenAI, compared with 16% of those in other regions. As with traditional AI, APAC cities plan to accelerate their use of GenAI over the next three years: 68% plan to widely or selectively employ GenAI, versus 57% in the rest of the world.

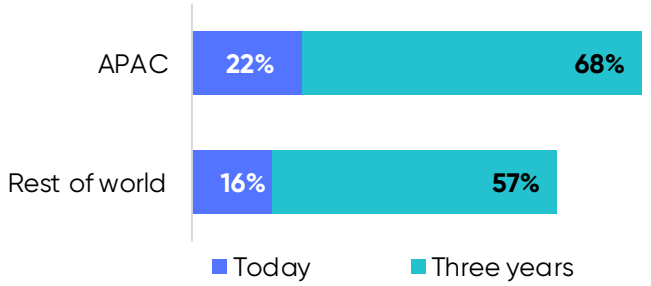
Leveraging AI across domains

Cities in APAC are also ahead of cities in other regions in deploying AI across urban domains. APAC cities are particularly ahead in using AI to improve safety, security, and resilience—a priority for a region with high urban population density and a propensity for natural disasters. And thanks to government initiatives and rapid urbanization, APAC cities are more apt to employ newer, AI-enabled urban infrastructure.

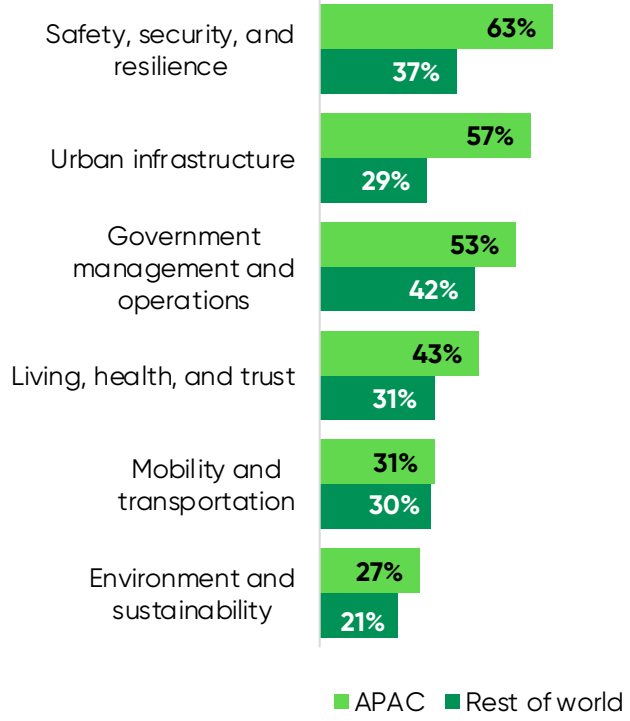
Traditional AI usage
(Selective or wide use)



GenAI usage
(Selective or wide use)



Active use of AI across domains
APAC vs. rest of the world



APAC CITIES SET A FOUNDATION FOR AI SUCCESS

When adopting AI, cities in APAC are more likely than their peers in other parts of the world to deploy pilot projects to demonstrate value—crucial for cost-conscious cities in the region.

APAC cities are moving fast to lay the foundation for AI leadership. They are ahead of other cities in many areas of data management, mobilizing organizational resources behind AI, and in appointing a senior AI leader and team of AI specialists to guide the use of AI across the city.

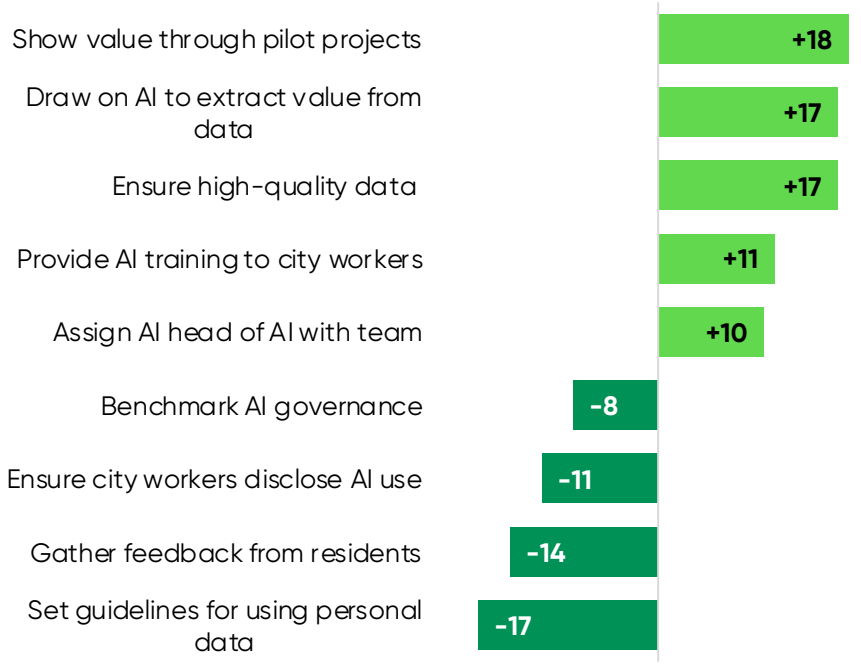
But they sometimes fall short on AI governance

Because of their eagerness to accelerate their use of AI, APAC cities sometimes devote less attention to ensuring the responsible use of AI.

APAC cities trail cities in other regions in implementing guidelines for handling personal data and using digital tools to ensure data privacy and security. They are less likely than other cities to engage with residents to address AI-related concerns. They do less to ensure that city employees disclose their use of AI. APAC cities may want to prioritize these critical steps to avoid any backlash from citizens and to stay in compliance with growing data privacy regulations across the region.

Ultimately, APAC leaders should be looking to find the right balance between impact and caution when it comes to implementing AI.

AI areas where APAC cities are ahead or behind those in rest of the world (% point difference)



Section 2:

AI LEADERS IN APAC

AI LEADERS IN APAC: A BREED APART

To assess AI best practices, ThoughtLab created a maturity model that identifies the most advanced cities in the use of AI. The model was based on a city's progress across four pillars of excellence:

1. The level of traditional and generative AI usage in the city
2. AI adoption across multiple urban domains
3. The number of controls to ensure responsible AI usage
4. The future-ready foundation needed to succeed with AI

ThoughtLab's economists developed an overall AI maturity score and classified cities that responded to the survey into three categories: AI leaders, AI advancers, and AI adopters.

Of the 49 cities surveyed in APAC, 18% were classified as leaders, 71% as advancers, and 10% as adopters.

APAC respondents by maturity*

Leader (9)	Advancer (35)			Adopter (5)
Beijing	Auckland	Hobart	Shimonoseki	Adelaide
Guangzhou	Bangkok	Jaipur	Surabaya	Christchurch
Hong Kong	Brisbane	Kochi	Susono	Ho Chi Minh City
Lucknow	Can Tho	Maebashi	Taiyuan	Kuala Lumpur
Melbourne	Da Nang	Makassar	Takamatsu	Western Sydney
Seoul	Daegu	Mumbai	Tangshan	
Sydney	Delhi	Ningbo	Toyama	
Taipei	Dhaka	Perth	Ube	
Tokyo	Fukuoka	Qingdao	Utsunomiya	
	Geelong	Quezon City	Wellington	
	Gold Coast	Semarang	Yokohama	
	Hanoi	Shijiazhuang		

*This list includes only cities that participated in the full survey. It is not a comprehensive list of all cities in the region that are advanced in AI usage.

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AI LEADERS ARE MORE RESILIENT AND BETTER PREPARED FOR THE FUTURE

About nine out of 10 AI leaders surveyed said they are well or very well prepared to deal with urban issues, compared to just four out of 10 AI adopters. By leveraging AI technologies, APAC cities can overcome the varied challenges they face and improve the overall quality of life for residents.

Crucially, AI upgrades the resilience of cities, helping them monitor and predict disruptions and recover from them quicker. Such disruptions range from environmental and supply-chain shocks to geopolitical and socioeconomic upheavals. In all cases, far more AI leaders reported having high resilience than their peers.

Harnessing AI can help cities prepare their urban domains for the future. With a citizen-centric focus, it is not surprising that AI leaders have made the most progress in living, health, and trust, followed by safety, security, and resilience, and then environment and sustainability. Progress has been slightly slower for mobility and transportation and especially urban infrastructure.

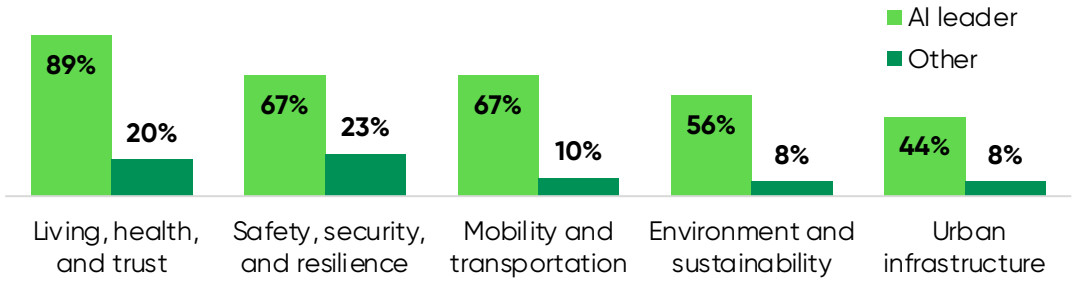
% of APAC cities reporting high resilience by type of urban stressor

Infrastructure	**89%**	**45%**
Geopolitical	**89%**	**38%**
Environmental	**78%**	**55%**
Supply chain	**44%**	**30%**
Socioeconomic	**44%**	**23%**

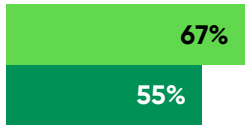
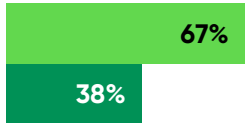
89%

of AI leaders are prepared to deal with urban challenges vs. **50%** of AI adopters.

Progress made in preparing urban domains for the future
(significant progress)

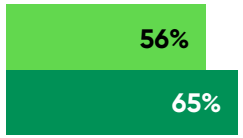
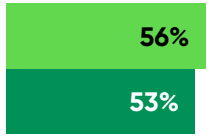
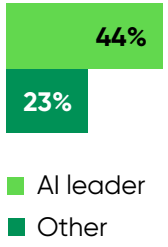


AI LEADERS HARNESS AI ACROSS DOMAINS

Urban domain	% actively using AI	Top use cases	Cities ahead in domain
Mobility and transportation AI-enabled mobility is becoming table stakes for AI leaders. Most use AI to improve public transportation routing and traffic management.		1. Intelligent public transportation routing 2. Traffic management and flow prediction 3. Special event management 4. Smart parking management 5. Predictive maintenance and planning	1. Hobart, Australia 2. Jaipur, India 3. Melbourne, Australia 4. Taipei, Taiwan 5. Takamatsu, Japan
Urban infrastructure AI leaders create smarter physical and digital infrastructure by drawing on AI.		1. Smart infrastructure design 2. Digital infrastructure security 3. Predictive maintenance 4. Sensor-based condition monitoring 5. Network optimization	1. Hong Kong, China 2. Jaipur, India 3. Surabaya, Indonesia 4. Taipei, Taiwan 5. Tangshan, China
Living, health, and trust By leveraging AI, AI leaders improve the lives and health of residents and increase their trust in government.		1. Risk factor identification 2. Social service administration 3. Simplified aid applications 4. Intelligent self-service portals 5. Data analysis on citizens' health needs	1. Beijing, China 2. Gold Coast, Australia 3. Jaipur, India 4. Taipei, Taiwan 5. Wellington, New Zealand

AI leader
Other

AI LEADERS HARNESS AI ACROSS DOMAINS

Urban domain	% actively using AI	Top use cases	Cities ahead in domain
Safety, security, and resilience AI leaders use AI to monitor, predict, and respond to urban risks and crime. Cities that are not leaders focus even more on this domain because they tend to have more public safety challenges.		1. Camera optimization 2. Scenario analysis of future trends 3. Natural disaster response 4. Emergency detector monitoring 5. Emergency response resource allocation	1. Hong Kong, China 2. Lucknow, India 3. Perth, Australia 4. Susono, Japan 5. Utsunomiya, Japan
Government operations One of the prime uses of AI is to boost efficiency. Both AI leaders and others harness AI to streamline government operations and improve management.		1. Visualize models for urban development 2. Document digitization and processing 3. Answer resident questions 4. Analyze huge volumes of data 5. Retrieve and analyze documents	1. Bangkok, Thailand 2. Daegu, South Korea 3. Guangzhou, China 4. Jaipur, India 5. Melbourne, Australia
Environment and sustainability Many AI leaders are already employing AI technology, often with digital twins, to enhance sustainability and waste management.		1. Monitoring carbon emissions, air quality 2. Waste management and recycling 3. Water management and monitoring 4. Design, manage smart buildings 5. Climate modeling and prediction	1. Geelong, Australia 2. Jaipur, India 3. Melbourne, Australia 4. Perth, Australia 5. Tokyo, Japan

MELBOURNE: DRIVING SUSTAINABILITY THROUGH AI

"Our vision is to leverage artificial intelligence in various sectors in order to enhance urban life, improve service delivery, and promote sustainability," said a senior Melbourne city official. Sustainability is the focus of one of the city's most important AI initiatives, an AI-enabled system used by Melbourne Water to manage urban water and wastewater by collecting real-time data and making predictions to improve distribution and support predictive maintenance for water infrastructure.

The AI-powered water management system includes AI models to detect contaminants and predict water quality issues in real time. It is can forecast the quality of recycled water by combining historical data, machine learning algorithms, and predictive analytics.

The city official said the technology can forecast recycled water quality up to 48 hours in advance, with an accuracy rate of 75%, providing valuable insights for water management and ensuring high standards of water safety and quality. "This technology has improved the quality of water and reduced water waste by 25% to 30%," he noted.

Melbourne Water is also using its AI-powered Wetlands Analytics Visualisation Environment (WAVE) tool to analyze aerial photography to monitor the health of plant growth in the city's wetlands. Wetlands can act as a natural filter for water, help recharge groundwater, and aid flood control.

Other AI-enabled sustainability initiatives

Melbourne doesn't stop there. It uses AI to overcome many other sustainability challenges:

- **Waste dumping:** The city employs AI and uses sensors to monitor illegal waste dumping behaviors and garbage compactors. The AI-gathered information allows waste management officials to review what has been thrown away and identify any dangerous items in the trash.
- **Pollution monitoring:** The city leverages AI to improve pollution control and monitor air quality. It also uses AI to track trees in the city and make plans for future planting as part of its Urban Forest Strategy. That helps the city address challenges such as climate change, population growth, and urban heating.
- **Analytics and optimization:** Melbourne uses AI for climate modeling and prediction, the design and management of smart buildings, energy optimization, and smart grid management.

"The integration of IoT, data analytics, and 5G technologies with artificial intelligence is transforming our city into a smart city, which has further helped us to be well positioned to tackle future challenges and emerge as a leader in urban innovation," said the city official.

BEIJING: PIONEERING AI ACROSS URBAN DOMAINS

On the southeastern outskirts of Beijing lies Yizhuang, a thriving economic and technological development zone that has become a focal point for innovation and industry. Unlike the bustling heart of the capital, Yizhuang is a specially designated area designed to accelerate high-tech industries, acting as Beijing's hub for cutting-edge technologies and scientific breakthroughs. With ambitious investments, cutting-edge technologies, and a focus on practical applications, Yizhuang is at the forefront of building a future-ready city that harnesses AI to improve the lives of its residents while shaping the future of urban development.

A vision for the future: Yizhuang's AI roadmap

Yizhuang's vision for AI is as bold as it is practical. The city's leadership envisions a thriving AI ecosystem that drives economic growth, enhances public services, and creates new opportunities for innovation. By 2026, Yizhuang aims to achieve major breakthroughs in core AI technologies, with a strong focus on building an integrated AI industry chain and developing high-performance computing infrastructure.

At the heart of this vision is the "one center, two bases, and three platforms" strategy, which includes a national AI software and hardware collaborative innovation center, an AI training base, a public computing power platform, and more. These facilities are designed to support the entire AI development lifecycle—from data aggregation and algorithm research to industrial transformation and application deployment.

Transforming healthcare with AI

In the medical field, Yizhuang is leading efforts to use AI to revolutionize healthcare delivery. With an investment of over 7 billion yuan, the city is developing a cloud-based infrastructure that connects medical institutions across Beijing. This system serves as the backbone for AI applications in smart medical services, including intelligent triage, pre-diagnosis consultations, and accurate appointment scheduling.

Yizhuang's AI-driven healthcare solutions focus on creating high-quality disease data areas that allow for more precise and personalized treatments. Public hospitals are being turned into smart medical pilot sites, where AI technologies are tested and refined to improve patient care. These efforts are not just about efficiency; they aim to save lives by providing better, faster, and more accurate healthcare services.

AI in action: Autonomous driving and transportation

One of Yizhuang's most effective AI applications lies in autonomous driving, a field where the city has made significant strides. Yizhuang is pioneering the development of a vehicle-road-cloud fusion system that integrates data from vehicles, roads, and cloud platforms to create a safer and more efficient transportation network. This system supports autonomous taxis, buses, freight trucks, and even unmanned delivery vehicles, transforming how the city manages mobility.

The city's autonomous driving zone is a key part of this initiative, offering multi-scenario demonstrations of fully autonomous vehicles. This zone showcases how AI can be applied in real-world transportation systems, improving not only the safety of these vehicles, but also their integration with public transit. The goal is to create a smarter, more efficient transportation network that can alleviate traffic congestion, reduce emissions, and improve the overall quality of urban life.

THE MANY BENEFITS OF AI PROGRESS IN APAC CITIES

More efficient water distribution:
Yokohama, Japan: Utilizes AI to deliver water efficiently to areas that need it most, reducing waste in the process

Better decision-making:
Perth, Australia: Uses AI to process and analyze large data sets, ultimately leading to better decision-making and increased transparency, providing numerous benefits

Improved traffic management:
Bangkok, Thailand: Created an AI-driven traffic management system that reduces traffic congestion and pollution while enhancing overall traffic management

Fraud prevention:
Da Nang, Vietnam: Applies AI to prevent fraud by recognizing anomalies in financial transactions

Improved cybersecurity:
Tokyo, Japan: Harnesses AI to detect, analyze, and protect against cybersecurity attacks on urban infrastructure and IT platforms

Predictive maintenance:
Surabaya, Indonesia: Uses AI to monitor and predict the condition of urban infrastructure, including roads, bridges, and buildings, minimizing unexpected failures and downtime

Enhanced sustainability:
Takamatsu, Japan: Uses AI for waste management, significantly improving efficiency and accuracy, and leading to a more effective recycling system

Better citizen services:
Gold Coast, Australia: Uses AI-enabled chatbots for citizen services, which helps the city respond to citizen inquiries and complaints

Better utilization of resources:
Fukuoka, Japan: By deploying energy-efficient streetlights with AI-based sensors, saves 20% to 25% on electricity

Forecasting utility demand:
Kochi, India: Applies AI for utility demand predictions, greatly reducing energy use and expenditures

Improved public safety:
Lucknow, India: Improved public safety by installing 1,000 AI-enabled cameras equipped with facial recognition technology

Improved urban planning:
Taiyuan, China: Optimizes urban planning and development using AI-driven models

Section 3:

THE PATH TO AI LEADERSHIP

EIGHT AI ACTION STEPS

01

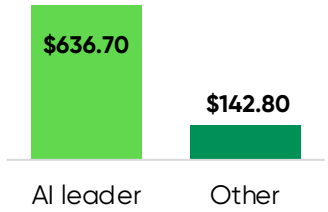
Make a top-down commitment

AI leaders in APAC have a vision and plan for transforming their economies and urban activities through AI, backed by an adequate budget. Often these plans begin at the national level and cascade down to cities.

Thanks partly to such national programs, AI leaders surveyed enjoy bigger technology budgets to support their AI ambitions.

Over the next three years, APAC AI leaders will outspend other cities by 4.45x.

Avg. cumulative tech spending, next 3 years ($M)

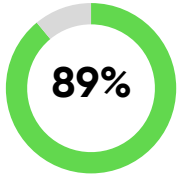


02

Build a modern IT foundation

The road to AI leadership starts with gathering and integrating data from urban domains and external sources, and then putting the data on a secure, cloud-based platform. With automated and streamlined processes in place, these modernized IT platforms make it easy to scale AI solutions and provide them widely to urban stakeholders.

of APAC AI leaders surveyed are midway or advanced in creating a modern IT platform



of AI leaders surveyed are midway or advanced in automating and optimizing workflows

03

Develop AI skills, talent, and processes

Talent gaps and inefficient processes are common speed bumps on the road to AI success. APAC AI leaders work hard to develop the skills, talent, processes, and culture to take AI to the next level.

Nine out of 10 APAC AI leaders are midway or advanced in ensuring that city employees have the necessary digital skills and talent.

Six out of 10 APAC AI leaders have appointed a head of AI with a specialist team to manage AI.

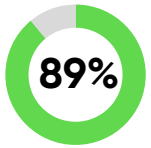
EIGHT AI ACTION STEPS

04

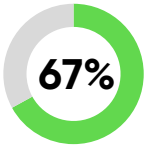
Cultivate an innovation ecosystem

APAC AI leaders work with more partners across the private, public, and nonprofit sectors than other cities. They share AI expertise and resources, build access to data and talent, and align strategies and policies with those of other government players.

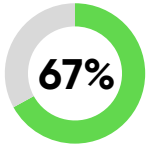
APAC AI leaders partner with urban players



partner with startups and technology firms



partner with businesses



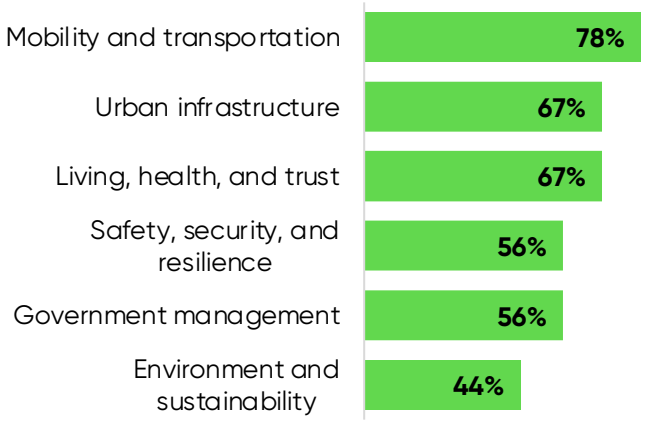
partner with universities and research firms

05

Transform domains with AI and GenAI

APAC AI leaders are speeding ahead of other cities in both traditional AI and GenAI. They are scaling these solutions across urban domains.

% of APAC AI leaders using AI across domains



06

Unlock value by combining AI with other technologies

APAC AI leaders are ahead of their peers in deploying other critical technologies. They increasingly combine these technologies with AI to supercharge performance and create solutions that were previously unimaginable.

Key tech APAC AI leaders use selectively or widely

100% Cloud

100% Cybersecurity technology

100% Automation

89% Chatbots and digital assistants

89% Compliance technology and RegTech

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EIGHT AI ACTION STEPS

07

Keep data security top of mind

As cities ramp up their AI programs, they often boost their use of data from connected IoT devices and other sources, making their systems highly susceptible to security and data breaches. To eliminate these vulnerabilities, APAC AI leaders leverage five key cybersecurity tools.

Top cybersecurity tools used by APAC AI leaders

1. Data backup and recovery systems
2. Identity and access management tools
3. Data loss prevention tools
4. Cybersecurity orchestration and automation
5. Cybersecurity defenses

08

Enable responsible use of AI

While AI creates huge opportunities for cities, it also raises broader concerns for residents. These include the potential for bias and discrimination, data breaches, misinformation, job displacement, and loss of privacy. To mitigate these risks, APAC AI leaders take multiple actions to build robust AI governance.

Top steps APAC AI leaders take to build AI governance

1. Establish AI governance frameworks
2. Enhance data security
3. Create guidelines to handle personal data
4. Work with experts to develop policies
5. Design processes to uncover biases

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SINGAPORE: BUILDING AN AI-DRIVEN ECONOMY

Since setting up a national AI strategy in 2019, Singapore has become an AI powerhouse, rivaling the U.S., China, and India. London-based, Tortoise Media's Global AI index, which assesses AI capabilities in 62 countries across more than 100 metrics, ranked Singapore third, behind the giant U.S. and Chinese economies.

Part of Singapore's AI strategy is to drive citywide AI usage by the public and private sectors, as well as by residents and students—an "AI for the public good" approach, according to Josephine Teo, minister for digital development and information. The city is achieving this by providing the AI training, resources, tools, and support needed to foster the responsible use of AI across its urban environment.

Turning AI into an economic driver

The goal for Singapore is to create an AI-driven economy, using the technology to enhance productivity and efficiency across key industries such as finance, healthcare, manufacturing, logistics, IT, aerospace, engineering, biotech, tourism and hospitality, and research and development. According to the Economic Impact Report 2024, commissioned by Google, AI-powered products and solutions could contribute US$198 billion to Singapore's economy by 2030, nearly 30% of the country's 2023 GDP.

Pushing ahead with GenAI

Singapore is advanced in leveraging GenAI, which is now included in its Model Governance Framework for Generative AI. The city is among the highest per capita users of ChatGPT, and in October 2024, developer OpenAI announced it would open a branch there in partnership with AI Singapore, a state initiative that brings together local research groups.

A coalition of digital government agencies had already in 2023 launched an effort to develop 100 GenAI use cases for both the private and public sectors in 100 days through workshops and innovation "sandboxes," in partnership with Google Cloud, called AI Trailblazers.

One example is an agent for Singapore's Trade and Industry Ministry that helps nontechnical users easily retrieve information from the National Economic Research and Visualization Engine (NERVE), a data hub that provides economic data to public officers.

Similarly, since 2023, Open Government Products (OGP), an experimental tech team in the Singapore government, has been rolling out the Pair suite of AI-powered chatbot solutions.

Pair has automated day-to-day tasks of public servants and made searches of large government data sets instantaneous and intelligent. It also speeds up tasks such as writing emails, conducting research, and generating ideas. Pair draws on large language models tailored to Singapore's urban executives and is available on government-issued devices.

These and other initiatives will help Singapore become "the most AI-powered economy in the world," a goal cited by Jaqueline Poh, managing director of the Singapore Economic Development Board, at the Fortune Brainstorm AI Singapore conference in July 2024.

> **"Singapore is not just leading the AI revolution, it's on its way to become the most AI-powered economy in the world; empowering enterprises and citizens alike with a visionary strategy and robust framework to drive AI innovation for public and private sectors.**
>
> —Jan Morgenthal, Chief Transformation Officer, Asia Pacific and Japan, ServiceNow

OUR TAKE: THE POTENTIAL OF AGENTIC AI

Ian Krieger

Innovation Officer, APJ, ServiceNow

Agentic AI is used in smart city projects to manage traffic flow, optimize energy use, and improve public safety. AI systems autonomously adjust traffic lights, reroute vehicles, and control public transportation schedules based on real-time conditions. Agentic AI will extend these capabilities further to automate decision-making and action-taking.

By integrating Agentic AI into their operations, cities can significantly enhance their efficiency, responsiveness, and effectiveness in serving the public. However, it is crucial to approach this integration thoughtfully, with attention to the ethical and practical implications of autonomous AI decision-making.

While Agentic AI offers significant potential, it also poses challenges, such as ensuring accountability for decisions made by autonomous systems, managing the ethical implications of AI actions, and protecting against potential security vulnerabilities. Governments must establish robust frameworks for the deployment, monitoring, and regulation of Agentic AI to harness its benefits effectively while mitigating associated risks.

Nick Herbert

Global Public Sector Executive Director, ANZ, ServiceNow

Some people imagine a dystopian future where generative and Agentic AI will replace human decision-making in cities entirely, leading to autonomous urban ecosystems that are optimized but lack the humanity that adds to the unique culture of each city.

However, instead of a dystopian future, the additive effect of generative and Agentic AI in a smart city environment provides policymakers and city operators the ability to see the blind spots in their existing plans and decision-making. That is because humans are naturally biased, often led by emotional decisions rather than objective decisions based on local data.

Once an AI agent has access to common urban data points, it can identify distinct patterns and provide a counter-narrative opinion for improved citizen service delivery, efficiency, and equality. This can be delivered in the shape of alternative suggestions for public transport routes or social housing allocations and zoning.

OUR TAKE: THE POWER OF END-TO-END PLATFORMS

Nick Herbert

Global Public Sector Executive Director of Mission Success, ANZ, ServiceNow

The real power of an end-to-end AI city platform is connecting partners to bridge competing interests for the good of citizens. The needs of emergency services compete with the needs of utilities, education, and transportation. Officials also must consider the opinions of residents and sometimes opposing political imperatives of elected officials.

With an end-to-end platform, data is linked across departmental boundaries, connecting systems and policy decisions. This elevates the planning process so that it delivers a true benefit to society, rather than serving one of its composite parts. With this type of data intelligence and insight, cities can create a harmonized roadmap, with initiatives to benefit the maximum number of citizens and services, and with the most efficient timing, budgeting, and planning.

For example, this could include a citywide sensor network for weather, water levels, hospital capacity, and transport routes that can leverage AI to suggest optimal ambulance routes, evacuation routes, and support hospital capacity planning.

Ian Krieger

Innovation Officer, APJ, ServiceNow

When citizens have seamless access to services and feel included in urban initiatives, they are more likely to adopt sustainable behaviors like recycling or use public transport. Similarly, employees equipped with modern tools and supported by effective systems can deliver better services, innovate in urban planning, and champion green initiatives more effectively.

By focusing on these experiences, cities can attract and retain talent, foster trust, and ensure equitable access to resources, making them more livable and sustainable. A positive citizen experience promotes community collaboration, while an engaged workforce ensures the efficient execution of sustainability strategies. Together, they create a foundation for resilient, inclusive, and environmentally friendly urban ecosystems.

TAKING THE NEXT STEP

Ian Krieger

Innovation Officer, APJ, ServiceNow

To successfully transition into a fully AI-enabled smart city, it's essential to take four steps:

1. **Prioritize citizen experience.** Enhancing experiences fosters engagement, trust, and inclusivity. When citizens have seamless access to services, they're more likely to support and participate in programs like public transportation, recycling, and energy conservation.
2. **Prioritize employee experience.** Employees equipped with modern tools and supportive environments can deliver efficient, innovative services, effectively meeting the evolving needs of the community.
3. **Implement an end-to-end workflow platform.** End-to-end platforms streamline operations and integrates diverse systems across the city's infrastructure. This integration facilitates seamless data-sharing, enabling real-time information flow between departments and services. Such interoperability enhances decision-making, encourages collaboration, and reduces operational silos.
4. **Support the evolution of AI agents that learn, adapt, and provide predictive insights.** These AI systems can improve urban services by offering autonomous decision-making capabilities. Investing in such platforms can help cities become adaptable, intelligent, and sustainable.

Nick Herbert

Global Public Sector Executive Director of Mission Success, ANZ, ServiceNow

Becoming a fully AI-enabled city is an enormous ask. The number of potential use cases and the opportunity to build an extensive ecosystem of technology and partners is overwhelming for most cities.

The initial use cases that cities adopt are often on the edges of their ecosystems, a place where they can engage with innovation partners and introduce a new delivery experience that can excite citizens and gain positive support in the community. However, doing this in many places, with multiple use cases and departments, can easily lead to AI sprawl, increasing technical debt and creating deeper silos in city ecosystems.

A simple solution to this is to create an integrated AI strategy for the city, which includes a unified platform for managing AI initiatives, along with a common data model. Cities can easily overlook developing an integrated urban AI strategy, but it is key to unlocking additive value in all subsequent AI investments, as the power of combined intelligence is released.

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For more information, visit servicenow.com.

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