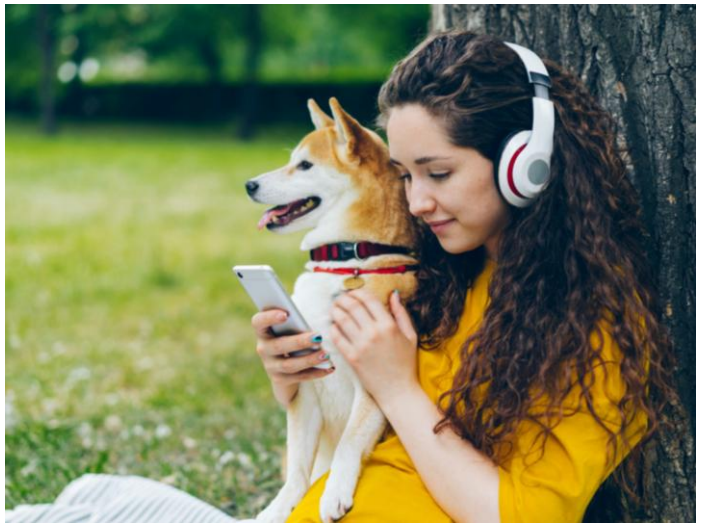
ThoughtLab

BUILDING A PEOPLE-FIRST AI-POWERED CITY

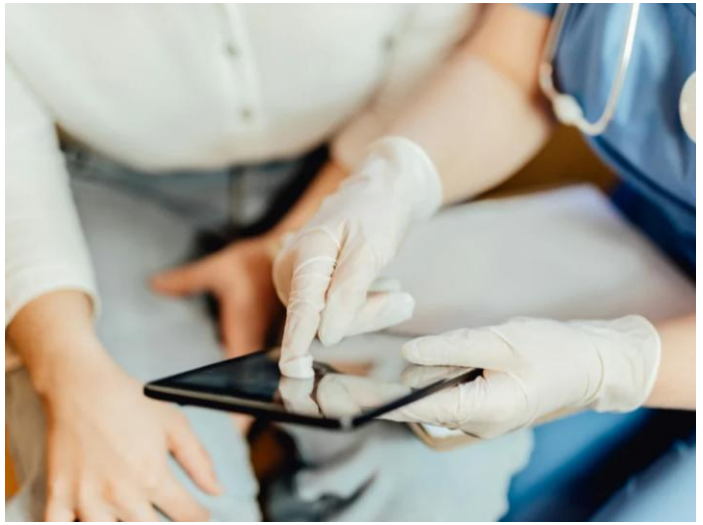
An urban playbook for successful AI transformation

November 2026









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How AI will improve urban living

Since 2017, ThoughtLab has examined the strategies and technologies shaping the world's smart cities. This is now our seventh major smart-city study—and given AI's rapid rise and power to transform cities, it is arguably our most important.

Throughout history, new technologies have triggered people's fears. Now it's AI's turn. Headlines warn that AI will threaten jobs, human skills, and privacy, while spreading misinformation. Those concerns are real and must be properly addressed. But history tells a broader truth: technological change unlocks huge opportunities for humanity. That story is now unfolding before our eyes in cities around the world.

AI is helping cities become more proactive, connected, and responsive to citizen needs. By linking data across departments, AI replaces fragmented, reactive processes with coordinated action, freeing public employees to solve human problems and make better decisions.

AI makes government more, not less, human. Rather than forcing residents to navigate complex systems, cities can anticipate needs, simplify access to support, and connect services across agencies, providing more accessible, personalized, and trusted public service.

The urban vision of the future

Our research shows a bright future for cities. Intelligent traffic systems will use continuous sensor data to improve traffic flows in real time, while physical AI will maintain roads, bridges, and other vital infrastructure. AI will help cities expand and personalize services for all residents, including older, disabled, and underserved people. Residents will interact with the city through multilingual interfaces to navigate services, report issues, and help shape local decisions.

City brains that connect real-time data across urban domains will upgrade emergency response, waste management, and public safety. Environmental monitoring and AI-powered simulations will help cities protect green spaces and mitigate climate risks.

But to achieve this vision, city leaders must manage AI's risks. Public worries over privacy, surveillance, bias, safety, and employment must be addressed. If used improperly, AI can heighten cybersecurity risks, deepen inequity, and lead to misinformation and poor decisions.

Yet our study offers grounds for optimism. City leaders are acutely aware of these risks and are building safeguards into their AI strategies and governance systems. In fact, most cities are taking a people-first approach to AI innovation: using AI to meet citizen needs and generate tangible economic, social and environmental benefits.

A playbook for Leaders

To help cities build a successful AI strategy, ThoughtLab partnered with urban leaders from government, academia, and industry on an extensive study of urban AI strategies and plans. We benchmarked 215 cities, reviewed 363 published city AI plans, and held peer interchanges and interviews with more than 50 urban experts. Our AI maturity model identified AI Leaders and what they do differently across every urban domain. The result is this evidence-based playbook designed to help urban leaders harness AI for the public good.

“Most leading cities are taking a people-first approach: using AI to meet citizen needs and generate tangible economic, social and environmental benefits.”



Louis Celi
Founder and CEO
ThoughtLab



SECTION 1

Research background

Benchmarking study of 215 cities

In July-August of 2026, ThoughtLab conducted a benchmarking survey of 215 cities around the world. The survey included a mix of cities by region, population size, development level and other parameters.

The respondents ranged from officials in the mayor's office to directors in different city departments and domains. All were knowledgeable about their city's AI strategy and held decision rights or influence over it. Because of its rigor, the survey was completed by more than one respondent in some cities.

Breakdown of respondents*

DIRECTORS OF URBAN DOMAINS

Director of Transportation, Director of Urban Planning, Director of Sustainability, Chief Resilience Officer

21%

TECHNOLOGY AND DATA

CIO/CTO/CDO, Smart City Director/Assistant Director Chief Data/AI Officer, Director of Technology/Innovation

20%

MAYOR'S OFFICE

Mayor, Chief of Staff, Director of Policy, Deputy Mayor, Deputy Chief of Staff

26%

FINANCE AND SECURITY

CFO, Director of Budget, Chief Security Officer/CISO

20%

OPERATIONS AND ADMINISTRATION

COO, Chief Citizen Experience Officer, City Manager, and City Administrator

12%

* Numbers may not add to 100 due to rounding.

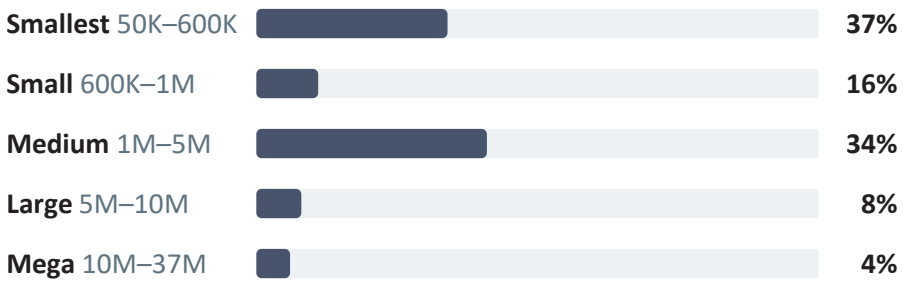
526

Survey respondents from 215 cities

2.45

Average number of respondents per city

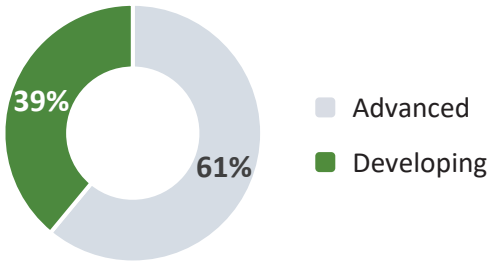
Cities by population*



2.23 million

Average city population

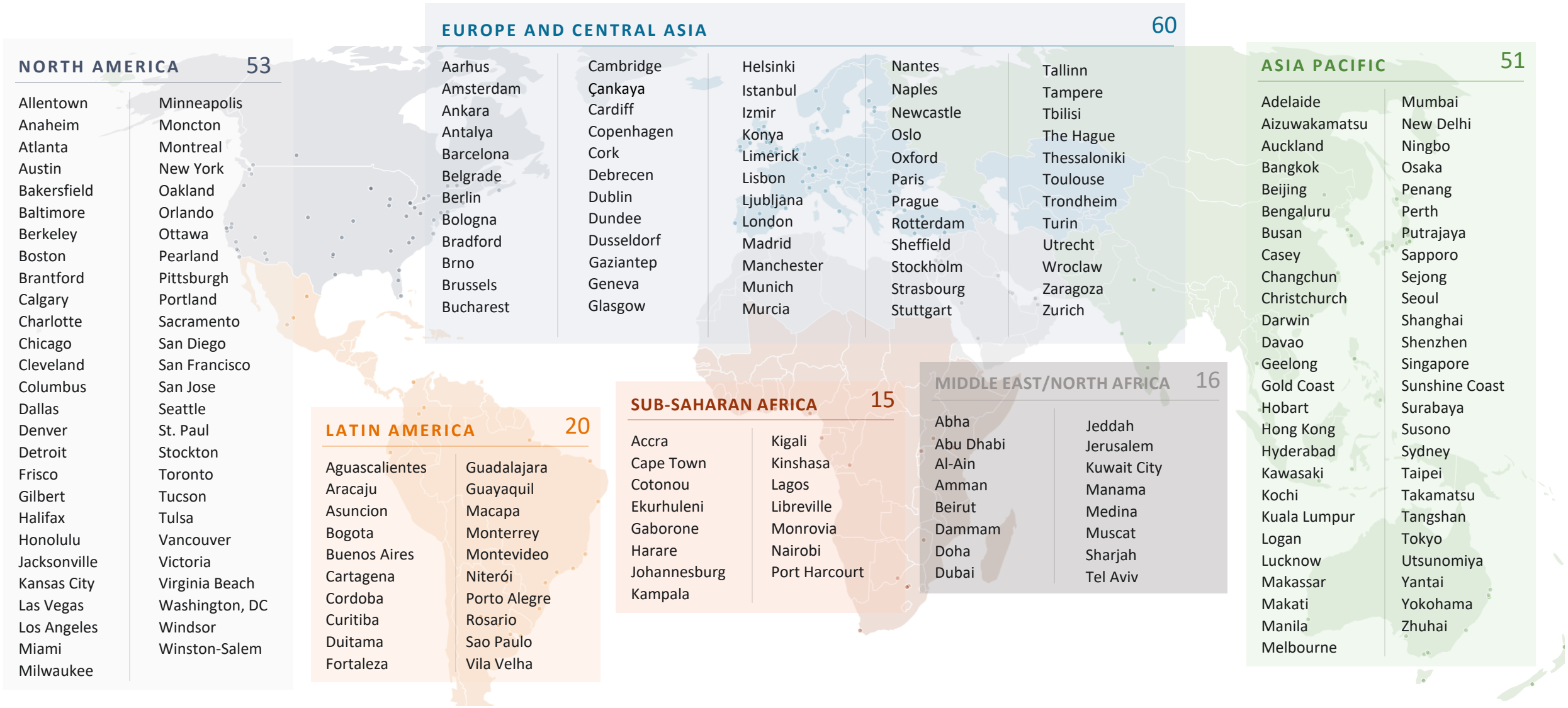
Cities by economic development



$5.5 billion

Average FY2026 operating budget

The study covered cities from all world regions



NORTH AMERICA 53

Allentown
Anaheim
Atlanta
Austin
Bakersfield
Baltimore
Berkeley
Boston
Brantford
Calgary
Charlotte
Chicago
Cleveland
Columbus
Dallas
Denver
Detroit
Frisco
Gilbert
Halifax
Honolulu
Jacksonville
Kansas City
Las Vegas
Los Angeles
Miami
Milwaukee
Minneapolis
Moncton
Montreal
New York
Oakland
Orlando
Ottawa
Pearland
Pittsburgh
Portland
Sacramento
San Diego
San Francisco
San Jose
Seattle
St. Paul
Stockton
Toronto
Tucson
Tulsa
Vancouver
Victoria
Virginia Beach
Washington, DC
Windsor
Winston-Salem

EUROPE AND CENTRAL ASIA 60

Aarhus
Amsterdam
Ankara
Antalya
Barcelona
Belgrade
Berlin
Bologna
Bradford
Brno
Brussels
Bucharest
Cambridge
Çankaya
Cardiff
Copenhagen
Cork
Debrecen
Dublin
Dundee
Dusseldorf
Gaziantep
Geneva
Glasgow
Helsinki
Istanbul
Izmir
Konya
Limerick
Lisbon
Ljubljana
London
Madrid
Manchester
Munich
Murcia
Nantes
Naples
Newcastle
Oslo
Oxford
Paris
Prague
Rotterdam
Sheffield
Stockholm
Strasbourg
Stuttgart
Tallinn
Tampere
Tbilisi
The Hague
Thessaloniki
Toulouse
Trondheim
Turin
Utrecht
Wroclaw
Zaragoza
Zurich

ASIA PACIFIC 51

Adelaide
Aizuwakamatsu
Auckland
Bangkok
Beijing
Bengaluru
Busan
Casey
Changchun
Christchurch
Darwin
Davao
Geelong
Gold Coast
Hobart
Hong Kong
Hyderabad
Kawasaki
Kochi
Kuala Lumpur
Logan
Lucknow
Makassar
Makati
Manila
Melbourne
Mumbai
New Delhi
Ningbo
Osaka
Penang
Perth
Putrajaya
Sapporo
Sejong
Seoul
Shanghai
Shenzhen
Singapore
Sunshine Coast
Surabaya
Susono
Sydney
Taipei
Takamatsu
Tangshan
Tokyo
Utsunomiya
Yantai
Yokohama
Zhuhai

LATIN AMERICA 20

Aguascalientes
Aracaju
Asuncion
Bogota
Buenos Aires
Cartagena
Cordoba
Curitiba
Duitama
Fortaleza
Guadalajara
Guayaquil
Macapa
Monterrey
Montevideo
Niterói
Porto Alegre
Rosario
Sao Paulo
Vila Velha

SUB-SAHARAN AFRICA 15

Accra
Cape Town
Cotonou
Ekurhuleni
Gaborone
Harare
Johannesburg
Kampala
Kigali
Kinshasa
Lagos
Libreville
Monrovia
Nairobi
Port Harcourt

MIDDLE EAST/NORTH AFRICA 16

Abha
Abu Dhabi
Al-Ain
Amman
Beirut
Dammam
Doha
Dubai
Jeddah
Jerusalem
Kuwait City
Manama
Medina
Muscat
Sharjah
Tel Aviv

We also built a database of 363 city AI plans

To support the primary data from our benchmarking survey, we collected city documents on AI from 363 cities, including 119 that we surveyed. These included a variety of materials, from governance frameworks and smart city strategy papers to AI reports and action plans.

The published AI city plans came from all regions of the world. They reveal regional differences in AI approaches. European cities focus on governance, while Asia-Pacific cities give more attention to deployment. Latin America and especially Sub-Saharan Africa have far fewer cities with plans.

Of the 363 cities with AI plans, 244 were not surveyed. Adding those 244 cities to the 215 surveyed brings the total number of cities covered by analysis to 459

How the sample was built

363 city AI plans

215 cities surveyed

119 counted in both

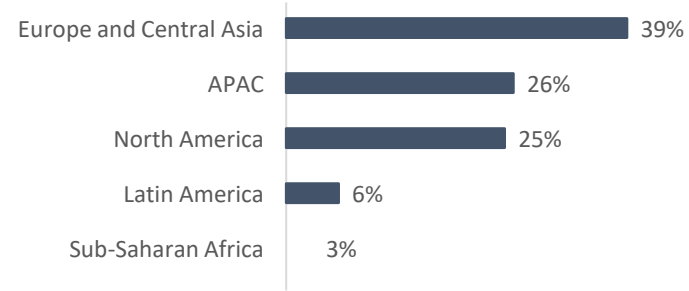
459

cities analyzed in total

Breakdown of plans by type



Breakdown of plans by region





How we defined AI in the study

AI is not new to cities. For years, governments have used established AI technologies, such as machine learning, computer vision, and natural-language processing, in smart-city solutions. These AI tools have helped cities to manage traffic, maintain infrastructure, forecast demand, detect fraud, improve emergency response, and deliver services more efficiently.

Spotlight on next-generation AI

This study focuses on next-generation AI, a newer wave of AI that has accelerated since the early 2020s, following the emergence of generative AI in 2022. Next-generation AI includes agentic, multimodal, sovereign, and physical AI. Unlike established AI, which is often designed for defined tasks, next-generation AI can work more flexibly across language, images, video, sensor data, and large document collections; generate content; model scenarios; and support multi-step workflows.

For city leaders, the opportunity is to combine next-generation AI with existing smart-city foundations, such as IoT sensors, connected infrastructure, digital twins, and data platforms, to create a more seamless, proactive and adaptive city of the future.

Established AI technologies

Anomaly detection — systems that flag unusual patterns, faults, or risks in data.

Computer vision — systems that interpret, classify, and extract information from images and video.

Machine learning — systems that learn patterns from data to make predictions or classifications.

Natural-language processing — systems that understand, analyze, or respond in human language.

Optimization AI — systems that identify the best routes, schedules, or resource allocations.

Predictive AI — systems that forecast conditions, demand, and risks from existing data.

Recommendation systems — systems that use data about needs, behavior, context, or prior choices to suggest relevant services, actions, or information.

Rules-based expert systems — systems that apply defined policies, rules, and expert knowledge.

Speech AI — systems that recognize spoken language, convert speech to text, synthesize speech, or enable voice-based interaction.

Next-generation AI technologies

Agentic AI — systems that plan and execute multi-step tasks with limited human input.

AI-enabled digital twins — digital models of cities that use AI and real-time data to test scenarios and support decisions.

Autonomous AI — systems that operate and make decisions independently of humans.

Conversational AI — systems that interact with people through natural-language text or voice.

Explainable AI — ensures that AI decisions can be understood, audited and justified.

Generative AI — systems that draft content, summarize information and automate routine communications.

Multimodal AI — systems that combine text, image, video, and sensor data.

Physical AI — AI that perceives, understands, and acts in the physical world.

Sovereign AI — a nation's ability to align its AI actions and capabilities with its laws, priorities, and economic interests, while building domestic AI infrastructure, talent, innovation ecosystems, and national capacity.



SECTION 2

Achieving urban goals with AI

Building a safer, more livable city: Solving today's urban problems with AI

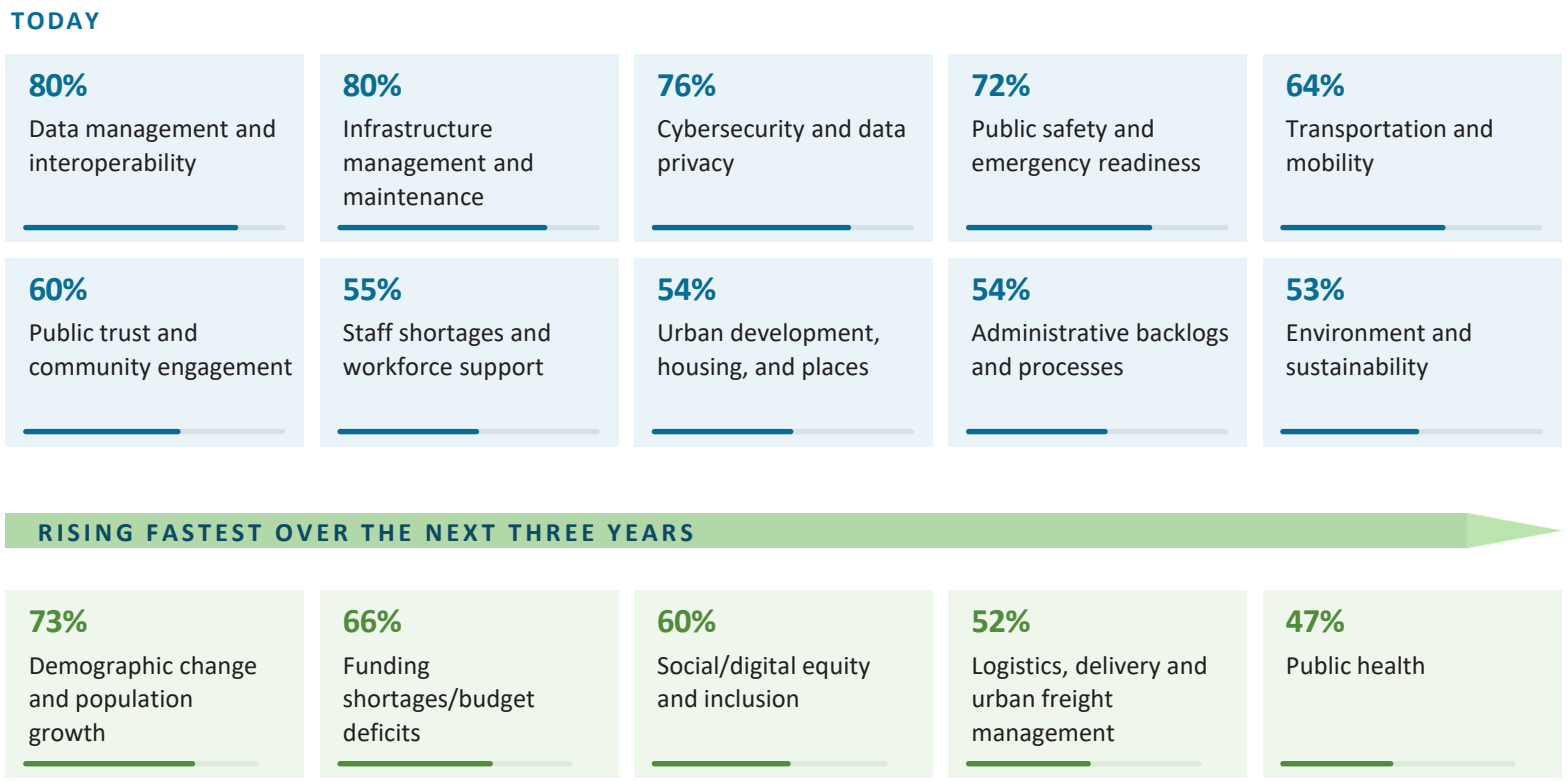
AI is a multi-purpose tool for cities—supporting urban administration through better data management, improved efficiency and greater workforce productivity. At the same time, it will vastly improve municipal services, creating more reliable infrastructure, safer communities, smoother mobility and more sustainable environments.

Critically, cities are not just building trust *in* AI, they are building trust *through* AI. They are doing this by using AI to engage citizens, make services more transparent, improve communication and provide more human-centered experiences.

Over the next three years, cities will use AI to solve other thorny challenges, such as demographic change, funding shortages, urban logistics and public health. The goal is not simply to optimize urban functions, but to transform the city's operating system.

As Dr. Rami Shaheen, Secretary General of the AI Subgroup, Dubai Quality Group, says, "Under the old model, the citizen requests, the city responds. The AI model is different: the city anticipates, prevents and personalizes."

% of cities that are addressing urban issues with AI



Survey Question: Which of the following urban challenges are you addressing with AI solutions? Which do you plan to address with AI solutions over the next three years?

AI offers a huge opportunity for cities, but only if guardrails are in place

For city leaders, AI is far more than an efficiency tool; it is an engine of urban transformation. As Nicole Coughlin, CIO, Cary, North Carolina says, “What excites me most isn’t the technology itself. It’s the opportunity to fundamentally rethink how government works.”

Most cities in our study believe that AI will ease workforce shortages and help them deliver personalized, frictionless services. At the same time, it will strengthen their competitiveness and advance people-first strategies that protect residents’ rights.

Managing the downside

But to capture AI’s promise, city leaders need to put the right guardrails in place. AI will heighten cyber and physical threats and require stronger governance to ensure reliable public decisions. As Inga Rós Gunnarsdóttir, Chief Data Officer, Reykjavik, notes, “The real question is not whether AI will transform cities, but whether cities can ensure that this transformation strengthens public value, trust, fairness, and democratic accountability.”

How city leaders weigh AI’s opportunities and constraints (% of cities agreeing)

OPPORTUNITIES		RISKS	
AI should augment, not replace, people and protect their rights	72%	AI will increase cyber and physical risks	66%
AI will become a key competitive and economic driver for my city	65%	AI may redefine decision-making across government, communities, and tech providers	60%
AI will help us deliver personalized, frictionless experiences and services to residents	60%	New models of shared governance will be needed to ensure officials and communities retain oversight	59%
Our city will use AI solutions to fill workforce shortages and support over-stretched staff	53%	Our city does not have the necessary governance mechanisms and policies to mitigate AI risks	57%
Our city aims to be a people-first, AI-powered city with people at the center of our strategy	52%	AI decisions and conclusions are not yet reliable enough for high-stakes public decisions	56%

Survey Question: Do you agree or disagree with the following statements about your city's AI strategy and plans?

How cities build a human-centered AI approach

Cities typically build a people-first mindset into their AI strategies. Most embed human-centered design principles—such as fairness, transparency and inclusion—into AI planning. More than half train employees in ethical, responsible AI use and set policies for data minimization, retention, and residents' control of personal information.

Moving toward accountability

More formal safeguards are less common: 42% of cities have transparency and explainability guidelines, 36% designate an official or office for AI governance and complaints, and 33% provide human review or an appeal process for AI-assisted decisions affecting individuals.

Working with residents

Direct public involvement remains a work in progress. Only 28% document resident or community needs before selecting AI use cases, and just 22% engage residents during design or procurement. Even fewer (19%) track whether AI improves outcomes. City leaders know that closing this gap is essential for public trust.

10 steps that cities are taking to build people-first, AI strategies

1	Embed human-centered design principles into the AI strategy and planning process.	60%
2	Train city employees on the ethical and responsible use of AI	57%
3	Establish clear policies on data minimization, retention limits, and resident control over their own data	53%
4	Set formal guidelines for transparency and explainability in AI-enabled services	42%
5	Designate an official or office responsible for AI governance and complaints	36%
6	Offer a defined-human review or appeal process for all AI-assisted decisions that affects an individual	33%
7	Document residents or community needs to decide on AI uses	28%
8	Include provisions for algorithmic transparency and data ownership in all contracts with AI vendors	23%
9	Engage residents or community groups during the AI design or procurement process	22%
10	Track whether AI improves resident outcomes	19%

Leading examples

Amman
Its smart-city roadmap embeds accessibility and inclusion criteria, including the needs of women, older people, and people with disabilities, within AI-enabled urban planning and digital-service design.

San Antonio
Its AI approach calls for it to be targeted, specific, and deployed only where it demonstrably improves resident outcomes. AI should surface information, while city staff retain decision-making responsibility.

Kyiv
Interviews residents and holds user workshops before developing digital services. Uses AI to analyze resident requests and identify community needs.

Reykjavík
Its AI approach focuses on public value, fairness, humanity, transparency, and human oversight. The city also identifies clear responsible-AI policies and organization-wide employee training as essential to safe adoption.

Edmonton
Prohibits sensitive-data inputs into generative AI and requires accountable human review of AI outputs.

Survey Question: Which of the following steps has your city taken to build a people-first, AI-powered city?

As public AI unease grows, cities need to build trust

Despite the progress cities are making in a people-first AI approach, public unease over AI is growing. Nearly seven in 10 cities report that public trust and acceptance of AI is one of the biggest challenges they face. The percentages are even higher in North America and Europe.

According to surveyed cities, citizens are most worried about surveillance and dehumanized services, followed by loss of control over decisions, discrimination, job losses, and misinformation. These concerns often reflect a lack of confidence in both AI and government.

Cities cannot ignore the AI backlash

Citizen fears are not just perceptions to be managed, says Geoffrey Urbach, Product and Partnerships Lead, Emerging Technology for San Antonio. “Leaders who treat these concerns as a communication challenge rather than a governance issue will erode the trust they’re trying to build.”

Cities must make public confidence a top priority, building transparency, human oversight, data privacy and security, and citizen input into their AI actions. As Erik Johnston of Arizona State University notes, "Trust is earned through authentic interactions with governance systems, not communications campaigns asking people to accept systems they did not help shape."

Six leading public concerns about AI, as reported by city officials
(% of cities reporting)

CONCERN 1
72%
AI will enable constant surveillance of my movements and behavior

CONCERN 2
65%
AI will make public services less human and weaken community connection

CONCERN 3
54%
AI will become so powerful humans lose control over key decisions

CONCERN 4
52%
AI used by cities will be biased and treat some groups unfairly

CONCERN 5
51%
AI will reduce good local jobs and weaken economic security

CONCERN 6
47%
AI will flood my city with misinformation

69%
of cities report that public trust and acceptance of AI-driven tools and services are one of the biggest challenges they face.

The numbers are higher in Europe, **77%**, and in North America, **74%**



Survey Question: Which of the following are the biggest AI misconceptions that citizens have expressed?

Six steps to turn AI anxiety into public confidence

1 Be transparent about what AI does

Residents should not have to guess whether AI is enabling a city service. ASU's Erik Johnston says, "Cities should disclose where AI is used, what information it relies upon, who is accountable for its decisions, and how residents can question or appeal consequential outcomes." Boston and San Francisco include AI-disclosure requirements in their generative-AI guidance, Amsterdam and Helsinki publish public algorithm or AI registers that describe systems in use and their oversight, and New York City's AI Action Plan commits to public disclosure of AI use cases.

2 Keep people accountable

Cities can automate routine tasks such as routing requests, translating information, summarizing documents, identifying maintenance needs and guiding residents to services. For high-impact decisions, human oversight and appeal rights are essential. Seattle requires human review of generative AI outputs before official use and prohibits social scoring. A Glasgow city leader similarly stresses that human intervention is important to maintain public trust and ensure privacy is not compromised.

3 Protect privacy and data residency

To allay citizen fears around surveillance and privacy, cities should collect data only for clear public purposes, as well as control access, sharing, and reuse of data. Cities also need to specify where sensitive data is stored and processed, including vendor services, backups, and cross-border transfers. Raleigh's camera-based AI analyzes pedestrian movements, vehicle flows, and turn-lane congestion without identifying individuals or vehicles. It communicates how this data is anonymized and used, while using it for adaptive traffic-signal timing.

4 Design for inclusion, not just efficiency

AI can streamline processes and help residents access services. But Johnston cautions against focusing just on efficiency. "A city that optimizes only for efficiency may deepen inequity," he says. Cities should test tools with diverse communities, preserve non-digital channels, offer accessible multilingual services and monitor outcomes for unequal effects. In Boston, guidelines direct staff to consider how AI-generated content could portray or affect marginalized groups.

5 Counter misinformation with evidence

Citizen fears are often stoked by misinformation and distrust. Cities must explain honestly what their systems do, what they do not do, and how safeguards work. Mark Wittenburg, CIO, Raleigh, says public leaders have a responsibility to distinguish fact from fiction. To provide trusted information, New York City Council is funding 22 community organizations to deliver AI literacy education and multilingual materials, train more than 400 local leaders, and host over 100 listening sessions.

6 Explain benefits clearly to citizens

Cities should explain the value of AI to citizens in everyday terms, such as shorter waits, faster emergency response, safer streets and easier access to services. They should use concrete evidence—not broad claims—to help residents judge whether AI is improving public services. For instance, the city of Kigali says its AI-enabled traffic system has helped reduce travel times for residents by up to 30%. The strongest approaches go beyond just explaining benefits to citizens, working with them to co-design AI policies and solutions.

Trust before technology

How San Antonio builds citizen support for AI

San Antonio understands that citizen trust is essential for AI success. That is why it avoids selling residents on a grand promise of "AI-first" government. Instead, it earns confidence through useful applications, clear limits, resident choice, and shared responsibility.

San Antonio's Urbach says the starting point is the citizen: "What problem are we trying to solve, and can AI help solve it?" The city pilots promising uses, validates their value, and scales only when evidence supports it. "The city of the future isn't AI-first," he adds, "it's people-first, with AI as a force multiplier."

That philosophy matters in a city facing fiscal constraints, rising costs, and longstanding inequities. Urbach believes that AI can be a valuable way to improve productivity, service delivery, and inclusivity, but only if it is used "in a respectful, responsible way for the workforce and communities the city serves."

Govern before you automate

San Antonio's AI strategy revolves around a core tenet, says Urbach: "AI surfaces information; city staff make decisions." Workforce growth should accompany AI adoption rather than be displaced by it, and privacy should be treated as "a right, not a compliance checkbox."

This establishes a clear boundary for agentic AI. "The standard should be human-in-the-loop for any decision that materially affects a resident's access to services, benefits, or justice," Urbach says. "That's not a limitation of ambition; it's a governance requirement."

The city backs these principles with enterprise controls. A 2025 city audit found that the IT department had set policies for employee AI use and third-party generative AI, maintained a portfolio of AI prototypes, and tested AI technologies before procurement.

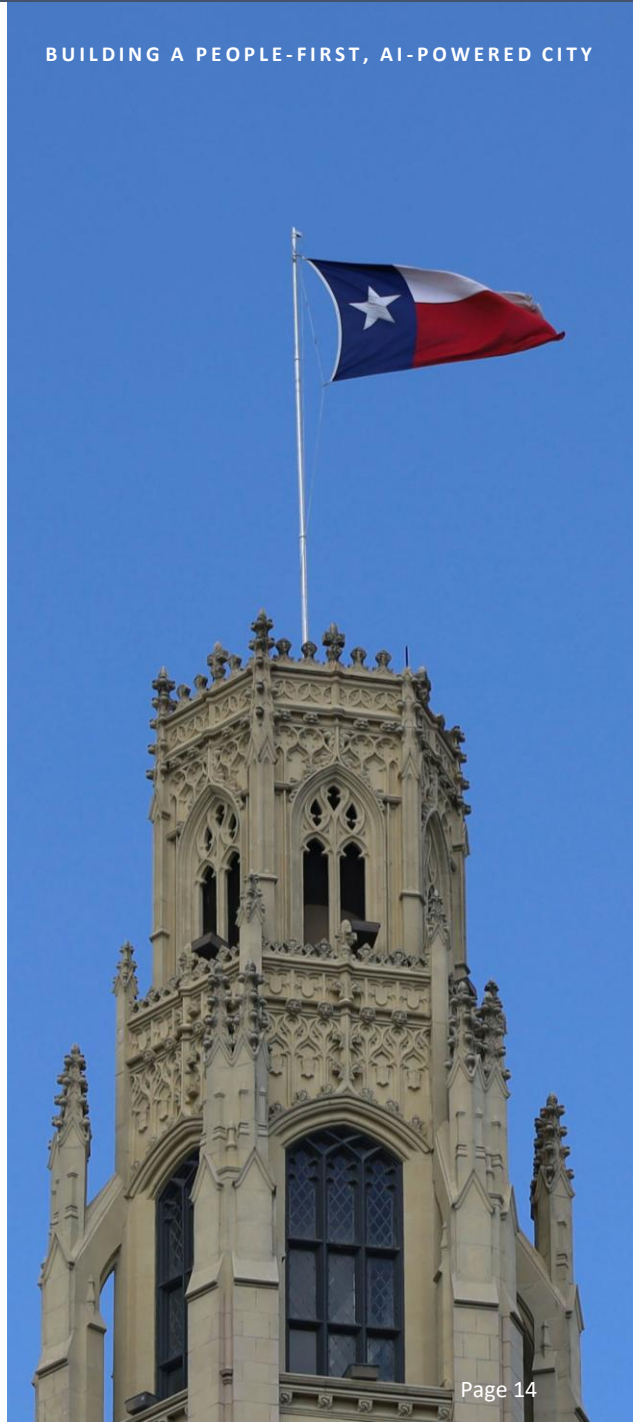
San Antonio's Emerging Technology Advisory Committee adds cross-functional scrutiny. It includes representatives from IT security, legal, finance, sustainability, equity, HR, communications, and community engagement. It helps teams identify risks, establish success measures, and determine whether pilots are ready to scale.

This review is particularly important for sensitive technologies. When considering camera systems and open-source intelligence tools, the city has examined ethics, public communication, and community implications—not just technical performance.

Design around choice

San Antonio's emerging resident-service model shows how these principles can shape AI-enabled services. The city is exploring an agentic experience that could guide new residents through activating electricity, water, and trash service through a single point of contact.

The design principle is "no wrong door," according to Urbach. Residents can still call or use another channel, and the AI experience is opt-in rather than opt-out. This recognizes differing levels of digital access, language proficiency, confidence with technology, and comfort with automated services.



Trust before technology (continued)

San Antonio's public engagement model

AI agents can create a more coordinated experience for residents, but San Antonio ensures that this integration does not sacrifice accountability. Individual agencies retain authority over security requirements and decisions about what data may be shared.

Make engagement real

San Antonio's trust model begins before deployment. The city's Smart City Roadmap utilizes surveys, outreach, and real-world testing to understand which challenges residents believe technology should address. Its three Innovation Zones provide settings in which emerging technologies can be piloted and evaluated.

In a smart-streetlight pilot, for example, San Antonio tested remote lighting controls and environmental sensors in its downtown and Brooks neighborhoods and near the Medical Center. The aim was not just to demonstrate technology, but to determine whether it addresses a neighborhood need and merits expansion.

Urbach describes public engagement as an obligation to listen and educate. Residents need opportunities to understand tools under consideration, see how they work, and raise concerns before deployment decisions are made. Engagement becomes co-design: explain the tradeoffs, test openly, collect feedback, and scale only when public value is demonstrated.

Prepare people to participate in the AI economy

San Antonio actively prepares citizens and workers for the growing AI economy. Urbach sees the University of Texas San Antonio's (UTSA) work in AI as a major asset, alongside the region's cybersecurity and research community. With limited budgets, he says, the city must work with tech companies, academia, nonprofits, and research institutions to build San Antonio's AI future.

Such partnerships can help develop the skills, talent pipelines, and local capacity needed to expand the AI opportunity rather than deepen the divide. UTSA's College of AI, Cyber and Computing provides one such foundation, serving more than 5,300 students that link AI, cybersecurity, computing, and related disciplines to regional employers and public-sector partners.

The goal is broader than creating AI specialists. Residents need AI literacy to understand the technology's capabilities and limitations; workers need skills as jobs evolve; and public employees need training to use AI safely and responsibly. When people can understand AI, influence its use, and see its benefit, they are more likely to regard it as an opportunity rather than a threat.

From trust to results

San Antonio's experience shows that trust is an operating model: start with public needs, test before scaling, protect privacy, preserve human accountability, offer non-digital alternatives, engage communities, and prepare people for change. A communications campaign added after AI deployment will not suffice.

San Antonio's objective is to automate public services to remove friction for the people most burdened by complex systems—and to do so in ways residents can understand, influence, and trust.

> "San Antonio has taken a very deliberate and thoughtful approach in how we will harness the benefits of AI and mitigate the risks. Organizations must start with a strategy and framework before deploying AI solutions. Our strategy guides our processes, and our governance oversees our usage."
>
> **Matt Reat**
> Senior IT Manager, San Antonio

SECTION 3

Where cities stand on their AI journeys



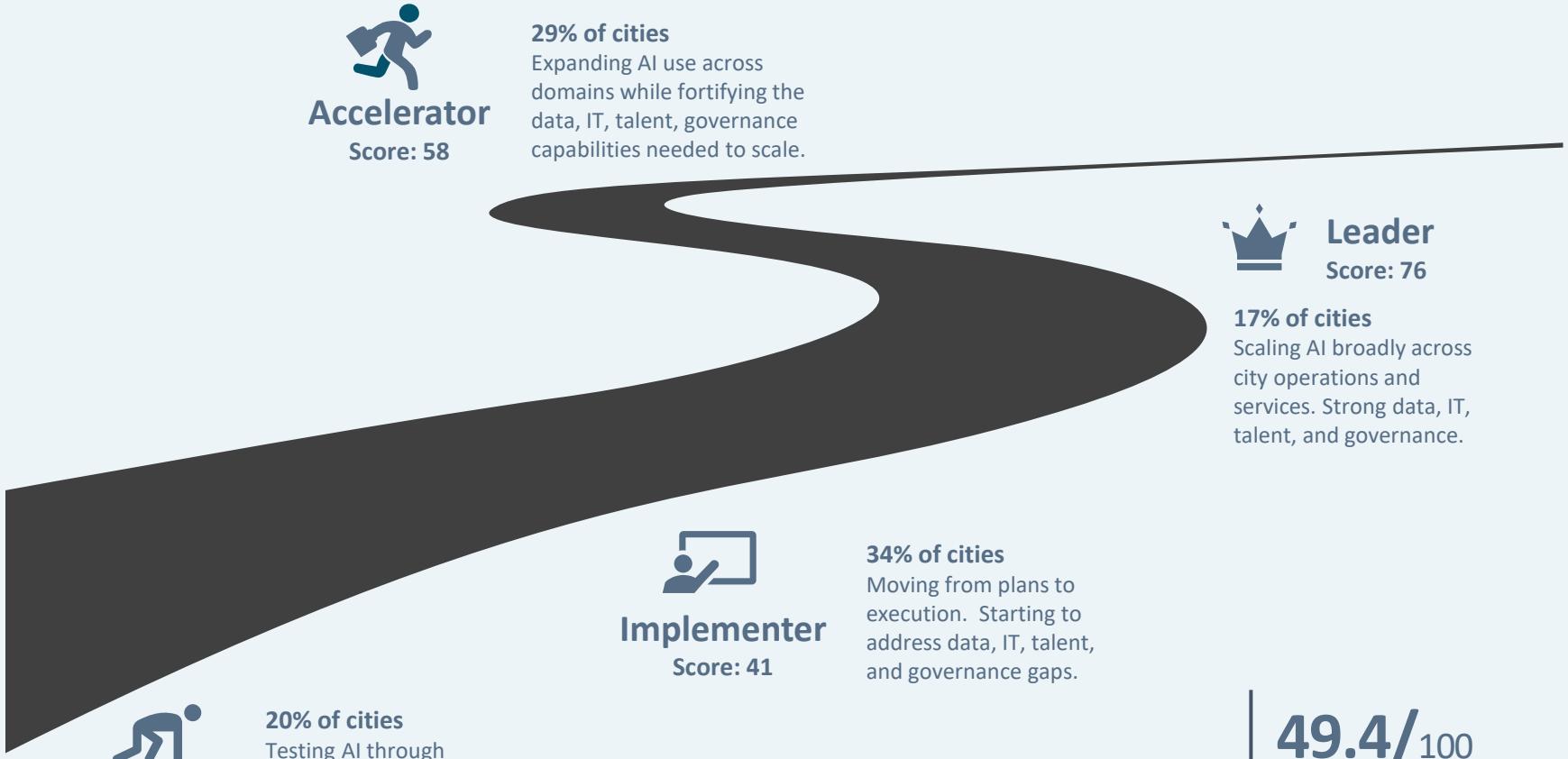
Cities are at different stages in their AI journeys

We ranked all 215 surveyed cities on their progress across eight pillars of best practice in people-first AI: (1) tying AI vision to outcomes; (2) designing AI around human needs; (3) strengthening governance and cybersecurity; (4) building AI-ready data and infrastructure; (5) improving citizen experiences and services; (6) developing AI talent and skills; (7) advancing AI solutions; (8) and expanding funding and partnerships.

How we scored pillars

Each pillar comprised multiple measures, scored from 0 for no progress to 4 for widely scaled progress. Cities averaged 49.4 out of 100, indicating that most are accelerating their AI implementation.

Twenty percent are **Starters**, focused on experimentation and defining use cases. The largest segment, 34%, are **Implementers**, moving pilots into execution. Another 29% are **Accelerators**, expanding AI across domains, while 17% are **Leaders**, scaling AI widely on robust foundations.



AI maturity scorecard: Moving into execution

Cities are putting in the building blocks for people-first AI transformation, but their progress remains uneven across the eight maturity pillars. On average, they are furthest ahead in AI-ready data and infrastructure, robust governance and cybersecurity, funding and partnerships, and an AI vision tied to outcomes.

These strengths reflect years of smart-city investment in connectivity, cloud platforms, data integration, digital-service modernization, and public-private collaboration. Kyiv illustrates the pattern: its digital strategy, city-service platforms, public-data portal and resilience modelling provide a base for AI applications. As Denys Nazarenko, CIO Advisor Kyiv City Council notes, “a good, structured knowledge base is the core of a working model.”

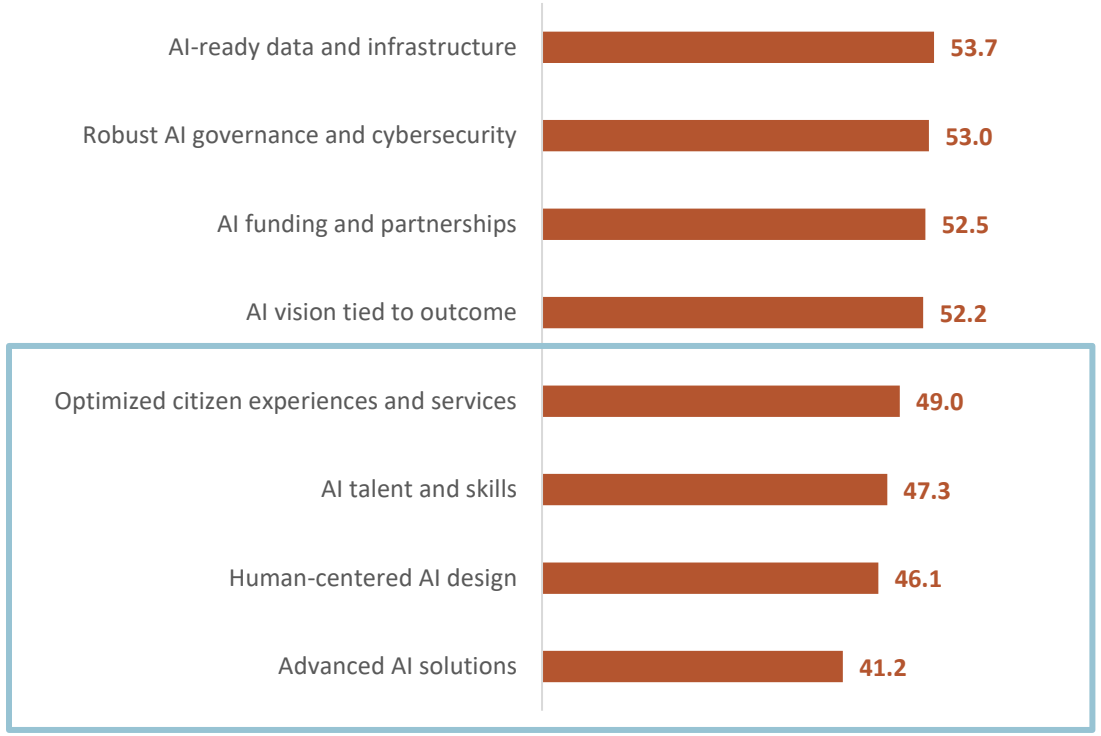
People, not technology, are a binding constraint

Cities score lower on making citizen experiences and services more efficient and personalized (49.0) and on building services around residents’ needs (46.1). Progress here takes more than technical skills. It requires a deep understanding of the people being served. Yet cities often don’t ask residents what they need or include their views when designing services. They also do too little to assess whether those services work for everyone, especially the underserved communities that rely on them most.

More progress needed on talent and tools

Cities also lag in AI talent and skills, especially the capabilities required to deploy advanced solutions at scale. They must compete with the private sector for scarce AI, data, cybersecurity, and product-management talent, often with less flexible hiring and compensation. Meanwhile, staff need training to use AI safely and effectively. Without enough specialists to develop and manage AI systems, and staff trained to use them, cities will struggle to expand AI use across public services.

Average AI maturity of cities by pillar



Survey Question: How much progress has your city made in the eight pillars of people-first AI transformation?

Cities are organizing for AI, but coordination lags behind

Cities are making progress in establishing the organizational structure and tools needed to pursue AI at scale. Many have named citywide AI leaders, formed governance bodies, and created innovation labs to design, test, and expand AI-enabled urban solutions. They are also investing in the connective infrastructure that supports implementation across agencies, including API layers, workflow platforms, and integrated data platforms, and are embracing tools such as digital twins and operational dashboards to conduct analysis and support decision-making.

But more needs to be done

However, this progress has not yet translated into a consistently coordinated strategy. Only 27% of cities report having an integrated, citywide AI strategy. The remainder are either still developing a plan or operating through disconnected department-level initiatives. Informal collaboration, decentralized ownership, and uneven governance remain common, increasing the risk that AI investments will be duplicated, poorly coordinated, or difficult to scale across the city.

Formal city-wide structures

58% have a named city-wide AI lead, such as a Chief AI Officer, CIO, or CTO

45% have a dedicated city-wide AI governance body, such as an AI committee

44% have innovation labs that help to design, test, and scale AI urban solutions

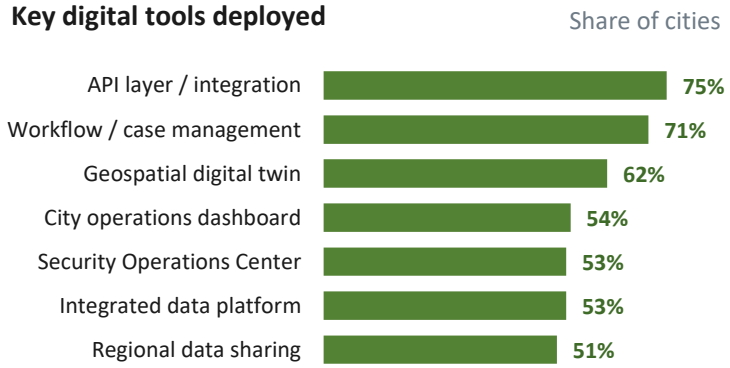
Informal or department-led approaches

44% still rely on informal or ad-hoc collaboration without any formal processes

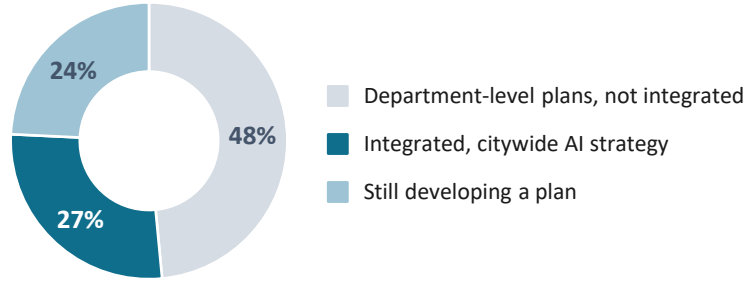
27% have department-led AI champions but no formal city-wide structure

27% have each department largely responsible for its own AI governance

Key digital tools deployed



Progress on AI plans*



* Numbers may not add to 100 due to rounding.

Survey Question: Which shared digital foundation tools do you have in place, and how is your city organized to plan, govern, and oversee AI? How is your city currently organized to plan, govern, and oversee the use of AI? Which best describes your city's AI strategic plan?

The public is already seeing AI benefits

Share of respondents citing each benefit

AI provides a wide range of benefits to citizens from faster and more efficient and proactive services to improved sustainability, accessibility, healthcare, and trust. Here are the benefits that cities see as they implement their AI strategies. These benefits grow as cities mature in AI use.

Faster, more efficient city services — 57%

- Faster permits, applications, licenses
- 24/7 chatbots and voice-based support
- Less waiting and fewer in-person visits

Smarter mobility and infrastructure — 31%

- Less congestion, smoother commutes
- Optimized traffic, transit, and parking
- Predictive maintenance, urban planning

Higher safety, security, and resilience — 23%

- Faster emergency response
- Safer streets, public spaces, communities
- Data protection and security

Proactive, participatory, transparent government — 14%

- Early detection of issues and risks
- Resident reporting, feedback, tracking
- Open data, public dashboards

Greater equity, accessibility, and workforce opportunity — 9%

- Multilingual and accessible services
- Support for underserved residents
- Digital skills, training, and job pathways

Enhanced healthcare and wellbeing — 9%

- Faster healthcare info and access
- Remote monitoring and diagnostics
- Less admin, increased patient care

Smarter planning and data-driven decisions — 9%

- Better housing, land-use, and planning
- Predictive maintenances
- Integrated data for faster decisions

Improved sustainability and climate control — 8%

- Cleaner streets, smarter waste collection
- Lower emissions, energy use
- Earlier environmental-risk detection

Survey Question: What benefits, if any, have residents experienced as a result of your city's use of AI?

Yet AI barriers hold many cities back

The biggest barriers to AI adoption fall into three areas: funding and returns, people and trust, and data readiness.

The funding squeeze

Cost pressures are constant hurdles for cities. A Kyiv City Council interviewee notes: “We have much less funds than we would like based on all the ideas we have.” Unexpected AI costs add to the strain. That is why Yantai has created a system to continuously analyze model-call volume and token usage to manage capacity and resource use as demand grows.

Humans in the loop

The workforce challenge is equally acute. Kyiv acknowledges that some roles may become obsolete in their current form, making upskilling essential. Cities must also contend with citizen concerns about both government and AI. “The two least trusted bodies in the US are government and AI platforms,” Steve Wray, Director of Economic Development for Pittsburgh, observes.

The data gap

For most cities, data remains a binding constraint, according to Urbach: “You cannot build reliable AI-assisted decision-making on inconsistent, siloed, poorly governed data—and most city data environments are exactly that.” Reykjavík is among the many cities in our study that has identified improving and restructuring data, strengthening governance, connecting digital infrastructure and securing platforms as essential groundwork for responsible AI adoption.

Share of cities reporting each barrier



Survey Question: When adopting AI, what are the biggest challenges that your city faces?

From smart to cognitive

Coral Gables' journey into a people-first AI city

For Coral Gables, Florida, AI is not a new development. It is the latest stage of a longer effort to build a more resilient, responsive, and citizen-centered city—one in which networks, sensors, data platforms, digital services, and human decision-makers work together.

"AI has been a long journey for us," says Raimundo Rodulfo, who joined the city in 2004 after more than a decade in technology.

One of Coral Gables' first uses of AI was intelligent network management. "We are in hurricane zone," Rodulfo says. "We need to make sure that our networks are intelligent enough so they can have automated failovers between multiple layers." During severe events, when much of the city may lose power, this resilience helps protect critical communications for first responders and 911 services.

The city later applied AI to cybersecurity. Beginning around 2013 and 2014, Coral Gables implemented behavioral analytics and deep-learning-based protections to identify anomalies and emerging threats, rather than relying solely on known attack signatures.

From connected assets to a cognitive platform

Beginning in the mid-2010s, Coral Gables built a cyber-physical city environment through smart poles, connected lighting, IoT sensors, multimodal traffic sensing, cameras, public safety sensors, computer vision, and video analytics. A fusion center and urban analytics capabilities helped turn these data streams into operational insight.

By 2017, the city had established its Smart City Hub—CoralGables.AI—and begun developing a digital twin. Its first AI-powered version went live in 2021, combining 3D city models, photogrammetry, building information models, real-time sensor data, and feeds from operational systems. Users could select a tree in the virtual environment to see its species and history, while other layers connected to permitting, finance, traffic, asset management, and environmental systems.

Rodulfo calls the digital twin the smart city operating system—a horizontal integration layer connecting "hundreds of enterprise systems," physical infrastructure, AI engines, and research partners. The environment includes thousands of sensors, nearly 1,000 cameras, and air-quality, water-quality, flood, and traffic data.

That foundation is now becoming a cognitive interface. Rather than manually navigating data layers, users can ask natural-language questions, such as "display traffic-signal layers," or "identify all oak trees." AI becomes a conversational guide to the city.

When AI begins to act as interactive agents

The shift from smart city to cognitive city is most visible in Coral Gables' move from analytical AI to AI agents that can take limited, governed actions. In 2021, the city began developing its first agentic solution through an NSF-funded collaboration with MIT/NEU researcher Dr. Saiph Savage. Originally called AIDA, for Artificial Intelligence Digital Assistant, the service began as a natural-language chatbot.

It has since been rebranded as Coral, a digital ambassador available through the city website, kiosks, telephone interactions, and internal systems. Residents can ask about events and city processes and request services, while employees can use a related version to initiate IT and service workflows. The AI agent creates the ticket, sends emails and alerts to city workers, and triggers workflows and follow ups.



From smart to cognitive (continued)

How Coral Gables puts citizens at the heart of its AI strategy

The city has also developed George, a specialized agent named for founder George Merrick, for Development Services and Public Works. It is intended to help callers obtain permit information faster while easing pressure on service counters. Together, Coral and George extend access to public services without reducing the experience to a generic chatbot.

Simulating city decisions

AI is also changing how Coral Gables tests decisions before executing them. Developed with Pacific Northwest National Laboratory, the AutonomIA platform models traffic conditions and helps optimize signal-timing scenarios in a simulation environment. Planners can test options in the lab and digital twin before applying them in the city.

Environmental modeling is another frontier. Through work involving NASA-linked researchers, University of Miami, Virginia Tech, and other partners, Coral Gables is developing an Earth System Digital Twin. It could help the city explore the effects of hurricanes, king tides, rainfall, storm-water penetration, and coastal risk before disaster conditions unfold. The work remains early-stage and funding-dependent, but it extends the city's original resilience goal from protecting networks to anticipating wider physical impacts.

Human-centered by design

In Rodulfo's view, urban projects must begin with citizen priorities and a defined quality-of-life outcome. "We don't do something because it's a cool new technology that we want to try," he says. "Every project is a strategic initiative that improves quality of life."

Municipal residents are not simply customers; they are owners. "The citizen owns the business of the municipality," Rodulfo says.

A public-safety initiative illustrates this approach. When residents raised concerns years ago about a rise in crime, the city mounted a cross-functional quality-of-life response.

The IT department expanded connectivity and camera infrastructure; police adapted operations and training; finance supported capital needs; and Public Works enabled installation and permitting. The shared goal was to improve response times, prevent crime, and address resident concerns.

Residents also helped shape Coral's design. Focus groups included older adults, people with disabilities, students, academics, business owners, nonprofit representatives, and advisory boards.

Trust as Infrastructure

Rodulfo acknowledges legitimate public questions about privacy, ethics, cameras, and data use. Coral Gables responds through engagement and controls including encryption, credentialed access, audit logging, limited video retention, and compliance with requirements governing criminal-justice, personal, health, and payment information.

For AI, the city follows the NIST AI Risk Management Framework alongside cybersecurity, operational-quality, and engineering standards. "We take that very seriously," Rodulfo says.

Coral Gables' experience suggests that a cognitive city is chiefly defined by whether intelligence is integrated into operations, directed toward public needs, and governed responsibly. "Everybody has to be on the same page of serving the citizen," Rodulfo says. "And you need to listen to the voice of the citizen."





SECTION 4

Who are the People-First AI Leaders

Meet the Leaders

17%

of all cities qualify as leaders

100% aim to become people-first, AI-powered cities

9x the AI spend of other cities ($111.6M vs $12.2M)

3x the AI spend per capita ($31.00 vs $10.00)

Leaders by region*

38%

Europe and Central Asia

14 cities

- Aarhus
- Amsterdam
- Barcelona
- Berlin
- Copenhagen
- Dublin
- Helsinki
- London
- Madrid
- Munich
- Rotterdam
- Stockholm
- Tallin
- Tampere

30%

Asia Pacific

11 cities

- Hong Kong
- Melbourne
- Putrajaya
- Sejong
- Seoul
- Shanghai
- Shenzhen
- Singapore
- Sydney
- Taipei
- Tokyo

19%

North America

7 cities

- Austin
- Boston
- Montreal
- San Francisco
- San Jose
- Seattle
- Washington DC

8%

Middle East & North Africa

3 cities

- Abu Dhabi
- Dubai
- Sharjah

3%

Sub-Saharan Africa

1 city

- Kigali

3%

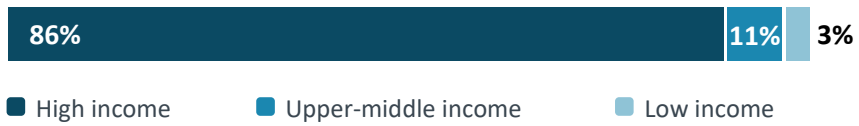
Latin America

1 city

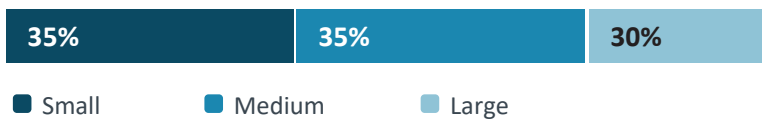
- Buenos Aires

* Numbers may not add to 100 due to rounding.

Leaders by income level



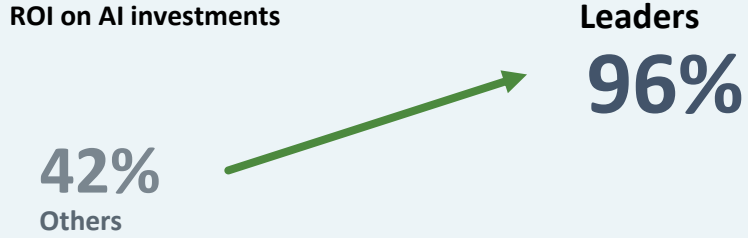
Leaders by population



What Leader status delivers

Performance results based on self-reported data

ROI on AI investments



Leaders generate more than twice the return on their AI investments—and get there faster.

Where Leaders outperform other cities

2.9x
More likely to improve social equity and fairness

2.2x
More likely to build public trust and transparency

1.8x
More likely to see sustainability benefits

1.5x
More likely to raise citizens' quality of life

1.4x
More likely to enhance service experience

% of cities that report significant cost and efficiency gains



Payback period on AI investments



Leaders come from everywhere

AI leadership is not the preserve of any one type of city. Our research identifies **Leaders** in every region of the world. They can be found in advanced and emerging markets, in large cities and small ones, and in rich or poorer economies.

Greater resources and budgets help, but what truly sets Leaders apart is the vision and ambition to use AI to improve public services for the people who rely on them.

> “In our work with cities, the ones that progress fastest treat AI as a city-wide program with a single city-wide vision tied to outcomes, clear accountability for delivering it, and the proper governance to enable fast decision making.”

Robin Bachmann
Senior Managing Director, FTI Consulting

Three Leaders show how different starting points can lead to the same goal.



Dublin

Dublin leads through trust. A mid-sized capital, it puts governance first, testing tools in Ireland's first Generative AI Lab for local government, training staff, and building in oversight from the start before scaling AI across council services.



Kigali

Kigali proves ambition can outrun income. Anchoring Africa's first comprehensive national AI policy, the Rwandan capital pairs clear direction with an experimental mindset, using Kigali Innovation City as a testbed for enhanced services.



Putrajaya

With about 120,000 residents, Putrajaya turns small size into an advantage. As the first pilot in Malaysia's national AI Cities program, it uses AI video analytics, adaptive traffic controls, and flood sensors to make daily life safer and simpler.

The following section provides a deep dive into the AI strategies of four such leaders.

How Dublin is driving responsible AI

Combining regional collaboration with local accountability

Dublin's approach to AI rests on a simple principle: technology should improve public services and deliver better outcomes for people. Identified as a leader in people-first AI transformation, the Irish capital treats AI as organizational change built on strong governance, trusted data, and capable staff.

Dublin is governed by four local authorities: Dublin City Council, Fingal County Council, South Dublin County Council and Dún Laoghaire–Rathdown County Council. Each is accountable for its own services, data and technology decisions. They collaborate through Smart Dublin, a regional platform for research, experimentation and shared learning with universities, communities and technology partners.

That ecosystem is unusually rich. Google, Meta, Microsoft, OpenAI, and Anthropic all have a presence in Dublin, alongside leading research centers such as Rinn AI, the new national research center for AI, launched in June 2026 with a budget of over €120 million. This gives the councils access to world-class expertise, while local accountability ensures each authority decides how AI is assessed and introduced.

From experimentation to sustainable services

Dublin has learned that a successful pilot does not automatically become a sustainable public service. Early work in Smart Docklands, the city's smart-district testbed in Dublin's docklands, showed that innovation also needs infrastructure, operational ownership, procurement, technical support, and long-term funding.

"Without the right data, technology, and governance in place, a city's ability to scale AI solutions is severely constrained," says Jamie Cudden, Executive Manager, Corporate Services and Transformation.

Governance before scale

Proposals must start from an operational need: improving a service, supporting staff or strengthening decisions. An AI Governance Group considers the purpose, benefits and wider implications of proposed uses, while an AI Technical Group assesses security, architecture, data requirements, and supplier risk. Both draw on legal, HR, data, information security, and technology expertise.

Experimentation is confined to the Generative AI Lab, set up in February 2025 with the ADAPT Research Ireland Centre and Trinity Business School, where only approved tools and clearly defined use cases are explored and documented. Work continues on risk classification, an inventory of AI systems, and stronger assurance processes, in step with the EU AI Act, whose obligations took effect in August 2026, and Ireland's national implementation through a new AI Office of Ireland.

"We make sure the governance is in place before we scale because in public service you don't experiment with citizen trust," Cudden says.

Data as a foundation

Responsible AI depends on reliable, well-governed data. Dublinked, the regional open-data platform supported by the four authorities, has grown from 234 datasets in 2016 to more than 900. In July 2026, Dublin



How Dublin is driving responsible AI (continued)

Rethinking municipal services through AI

City Knowledge Hub, whose 20-plus dashboards and maps provide local information down to areas of around 75 households. The council's Digital Transformation Strategy 2025–2030 commits to a dedicated data team, a data lake, a data audit and cleansing program, and ethical, non-discriminatory data use.

These platforms are not AI systems in themselves, but they are the foundations future AI applications will depend on.

People at the center

AI will change how employees work, so Dublin emphasizes skills and readiness. South Dublin County Council's domain ambassadors help colleagues explore emerging tools in the context of familiar services. Every Dublin City Council employee must complete an 80-minute AI foundation course, building on the regional Expl[ai]n workshop of March 2024, and the council is identifying where roles and processes may need to change.

For residents, non-digital channels remain open for those who cannot, or prefer not to, go online, and governance provides a clear route to stop, redesign, or defer an initiative where safeguards fall short.

Applying innovation to urban challenges

The Data Insights for Active Travel initiative, launched in March 2024, installed the city's first AI-enabled roadside sensors. They count pedestrians, cyclists, and vehicles and flag near misses, building an evidence base for investment. The aim is to put 95% of Dubliners within a five-minute walk of a safe route, in a city where residents make about 220,000 walking and cycling return trips a day. The related Active Travel Dashboard won the Mobility Award at the 2024 Smart City Expo World Congress.

Other work is at earlier stages. Dublin Fire Brigade and Dublin City University are prototyping a digital twin that combines building layouts, hazards, hydrants, and incident records. Google's Project Air View has mapped air quality street by street, and a Generative AI Lab experiment has explored making decades of council meeting records searchable and accessible to staff, helping ensure more consistent responses in future.

Not all of these are AI deployments; some are operational, others experiments or data infrastructure. Dublin measures progress not by the number of technologies deployed, but by whether innovation becomes trusted, useful and sustainable public service.

Lessons for other cities

Dublin shows that innovation needs both a strong collaborative ecosystem and accountable governance. Regional collaboration accelerates innovation, but it doesn't replace each authority's responsibility for its duties, workforce and risk

"The key lesson is that collaboration drives innovation," says Cudden. "Working with different government bodies, universities, businesses, technology providers, and other cities delivers better solutions to complex urban challenges."



Leveraging AI in emerging markets

How Kigali is positioning itself as an AI regional hub

Kigali is emerging as one of Africa's most ambitious AI innovation centers—not because Rwanda is large or wealthy, but because it has aligned policy, talent, infrastructure, and public-sector applications around a clear national goal. Though the country is landlocked and resource-constrained, Kigali is positioning itself as a regional hub for responsible AI, digital services, and technology entrepreneurship. Its inclusion as a Leader in our people-first AI research shows that AI leadership is possible anywhere.

National AI foundation

Rwanda's 2023 National Artificial Intelligence Policy positions AI as a tool for economic growth, better public services, and inclusive innovation, prioritizing agriculture, healthcare, financial services, transport, and smart cities. Kigali is the natural focal point for delivery, supported by the Centre for the Fourth Industrial Revolution Rwanda, which convenes government, business, researchers, and international partners to scale responsible AI.

Kigali is building the physical and institutional foundations of an innovation hub. Kigali Innovation City, a planned 61-hectare district in the Kigali Special Economic Zone, will bring together universities, technology firms, researchers, entrepreneurs, and investors. Carnegie Mellon University Africa, the African Institute for Mathematical Sciences, and the University of Rwanda are strengthening the local pipeline in data science, computing, engineering, and AI. Together, they could position Kigali to serve East and Central Africa.

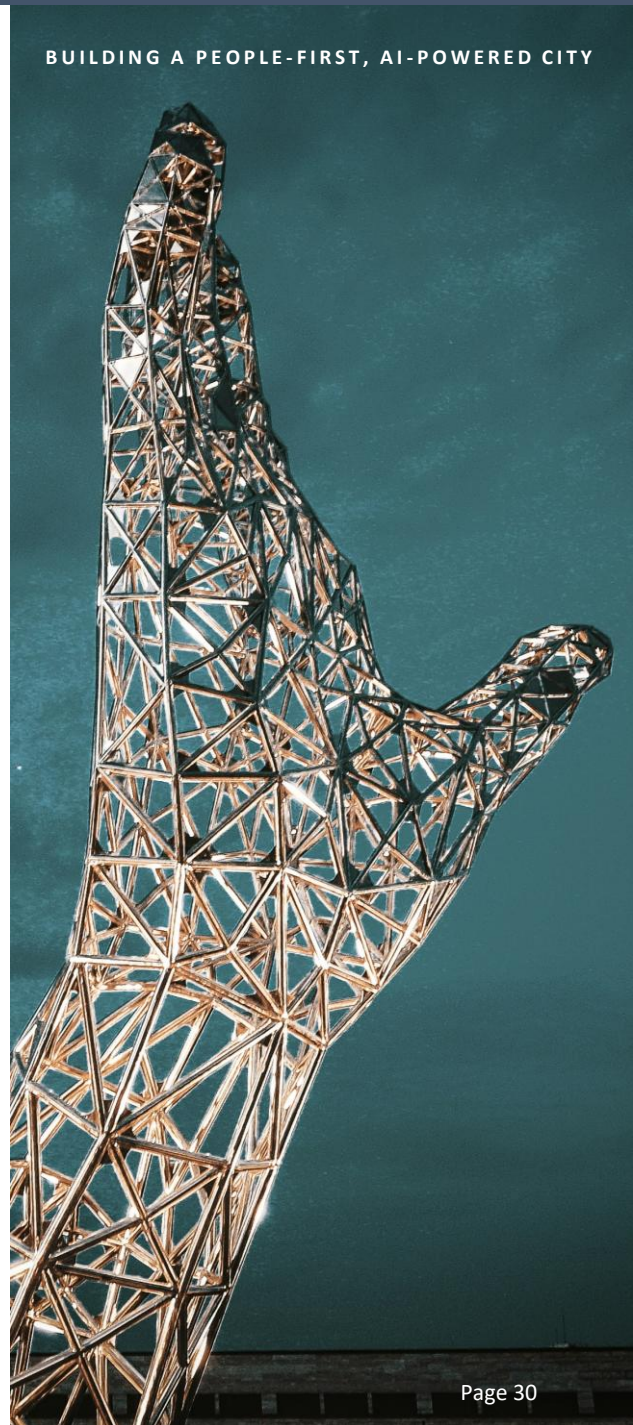
Local AI execution

Kigali's AI ambition is grounded in practical use cases. Its intelligent traffic-management system uses real-time CCTV and IoT sensors to adjust traffic signals, support traffic authorities and emergency services, and reportedly reduce average travel time by up to 30%. This is people-centered AI in practice: easing congestion, improving access to work and services, and speeding emergency response.

"Citizens are already benefiting from better traffic monitoring and more accessible digital city services," says a senior city leader. Kigali is actively implementing sovereign AI and beginning to deploy autonomous, multimodal, physical, and generative AI. It reports significant gains in efficiency and service quality, and moderate benefits in citizen satisfaction, sustainability, public trust, and risk and compliance.

In April 2025, Rwanda and the Gates Foundation announced the Rwanda AI Scaling Hub in Kigali. The hub will identify, test, and expand responsible AI solutions across Africa, starting with health, agriculture, and education.

Kigali's local-national formula offers a lesson for other developing cities: start with urgent public needs; invest in data, connectivity, skills, and trusted partnerships; then scale applications that improve daily life. As a city official observed, "infrastructure and skills are the foundation for AI success, so we have learned to prioritize human capital development and AI literacy."



A small city with big AI plans

Putrajaya's people-first, AI transformation strategy

Putrajaya, Malaysia's federal administrative capital, shows how a small city can use AI to improve everyday urban life. With about 120,000 residents, it is small by international urban standards, yet it is classified as a Leader in the AI-first-city research. Its advantage is a compact urban geography, coordinated public institutions, and access to national digital partners—allowing it to test, refine, and scale practical services without the fragmentation of a major metropolis.

Putrajaya's AI City Initiative, led by Putrajaya Corporation and the Malaysia Digital Economy Corporation, is the first pilot in Malaysia's national AI Cities program. The initiative connects AI deployment to public-service modernization, low-carbon development, and smarter urban operation to improve efficiency and quality of life.

A strategy anchored in outcomes

An IT leader for Putrajaya says that "AI and technology can be a method of achieving a goal but cannot be the end goal." For example, says this executive, citizens get proactive public safety services through intelligent video analytics and reliable urban services through predictive and dynamic models. Looking ahead, the executive describes a vision of "a governance where we anticipate and prevent issues using AI and technology."

To get there, the city already draws on a broad mix of technologies, including sovereign AI, physical AI, multimodal AI, generative AI, and an AI-powered digital twin. Within three years, it expects to add explainable and agentic AI.

The city already reports a range of benefits, from improved workforce productivity, service quality, and risk and compliance, to greater public trust, transparency, sustainability, efficiency and citizen satisfaction.

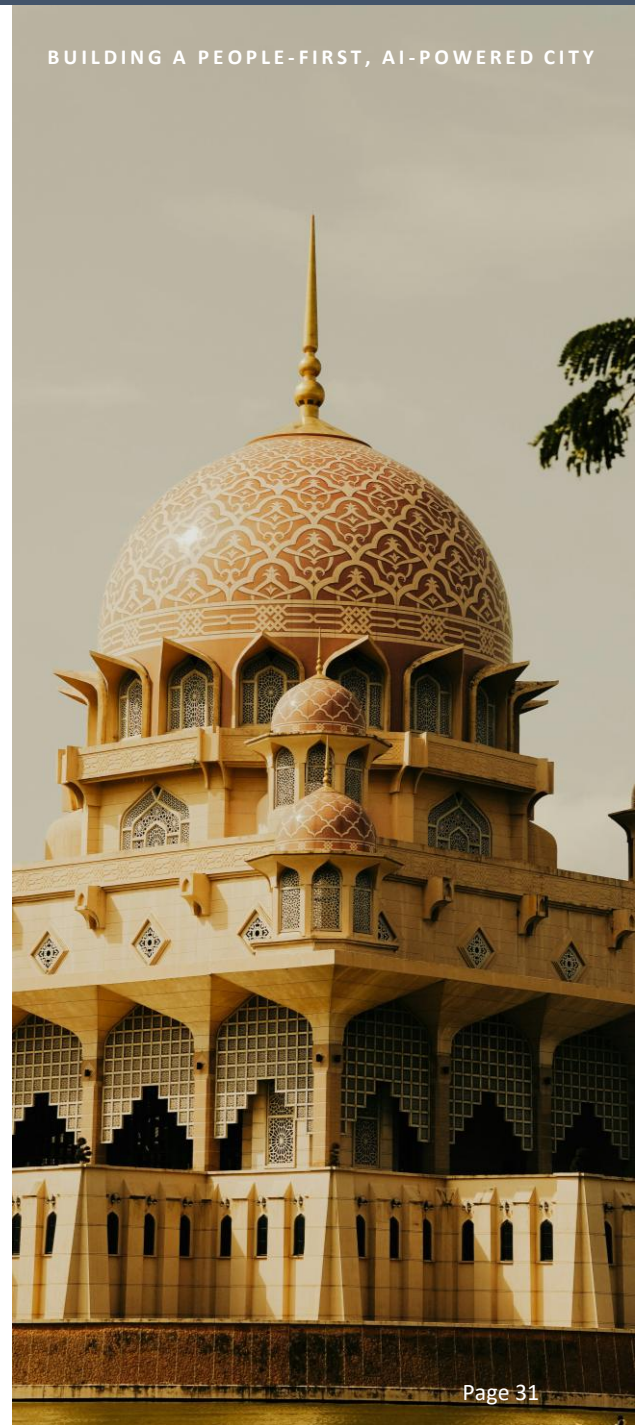
Improving safety and mobility through AI

"Integrated urban safety surveillance is our most effective solution," says the IT leader. "We are widely scaling it with a network of hundreds of intelligent cameras. AI video analytics detect crowds, accidents and suspicious behavior, providing real time alerts for emergencies." Because these alerts go straight to city operations teams, staff can respond more quickly and spend less time on routine manual patrols. That frees employees for tasks that require human judgment and direct assistance.

Putrajaya also uses AI for mobility and resilience. Adaptive traffic controls use video analysis and real-time data to adjust signal timing, reduce congestion, and make journeys more predictable. Flood sensors provide early warnings during heavy rainfall, enabling city teams to act before disruptions become more severe.

Lessons for small cities

Putrajaya is not just any small city: as a planned federal capital, it enjoys purpose-built infrastructure and close ties to national decision-makers. Still, its lessons apply to other cities. Start with visible problems, build shared infrastructure, lean on national partners, and treat small scale as a strength.





SECTION 5

Learning from the Leaders

Leaders put people at the center of their AI strategies

Overall Maturity

76 Leaders **vs.** **44** Others

17% of cities are Leaders

"AI-first cities are not about technology, they are about people," says Doug Priest, Transportation and Urban Infrastructure lead at Microsoft.

Leaders start with a human-centered mindset aligned with social, service, and economic goals. They back that vision with robust governance, data and IT systems, and partnership ecosystems. They also build AI skills among staff and citizens, involve communities in AI decisions, and earn trust through responsible AI practices.

What Leaders do differently across the eight people-first AI pillars (average score of Leaders vs other cities)

01 Human-centered design

Embed human-centered design principles into the city's AI strategy and planning processes.

LEADERS	OTHERS
86	38

02 Vision and outcomes

Build long-term AI visions and strategies aligned with social, service, and economic goals.

LEADERS	OTHERS
80	46

03 Governance and security

Establish clear oversight, protect data, prioritize cybersecurity, and ensure responsible AI use.

LEADERS	OTHERS
82	47

04 IT and data foundation

Connect data and build the IT, data, connectivity, energy, and partner foundations to scale AI.

LEADERS	OTHERS
78	49

05 Citizen experiences

Use AI to deliver more reliable, efficient, personalized services and free staff to address complex human needs.

LEADERS	OTHERS
74	44

06 Future of work

Develop AI skills and talent among staff and citizens and redesign work for effective human–AI collaboration.

LEADERS	OTHERS
74	42

07 Advanced AI solutions

Combine latest AI, such as agentic and physical AI, with advanced technologies such as digital twins and city brains.

LEADERS	OTHERS
64	37

08 Partnerships and funding

Tap government grants and philanthropy, and foster public-private partnerships and outcome-based models.

LEADERS	OTHERS
73	48

SCORE KEY

25 = exploring, testing, and developing plans

50 = plans in place and starting to implement them

75 = actively implementing in several areas

100 = widely scaling plans across city

Survey Question: How much progress has your city made in the following areas?

01
Human-centered design

Leaders start with people, then turn to AI

Leaders put people at the center of AI design by defining success in terms of public value—not the sophistication of technology deployed. They begin with the needs, rights, experiences, and concerns of residents and employees, then identify AI uses that can improve access to services, strengthen safety, reduce administrative friction, and support fairer outcomes.

This means engaging affected communities early, designing services for accessibility and inclusion, and maintaining meaningful human oversight of high-impact decisions. However, a true AI city doesn't just cater to resident needs, it anticipates them. For Dubai Quality Group's Dr. Rami Shaheen, this means "identifying which family is likely to fall into vulnerability before they request help."

Ultimately, AI capability is a means to an end. As Raimundo Rodulfo, Director of Innovation and Technology for Coral Gables, explains, "AI has been one of several applied technology toolkits we have used in Coral Gables over the past ten-plus years to foster innovation, economic growth, citywide efficiencies, and continuous improvement of customer service and quality of life in our communities."

Percentage of Leaders that have taken the following steps to build a people-first, AI-powered city

92% LEADERS — Train city employees on the ethical and responsible use of AI.
vs. 49% of other cities

81% LEADERS — Embed human-centered design principles into the AI strategy and planning process.
vs. 56% of other cities

78% LEADERS — Set formal guidelines for transparency and explainability in AI-enabled services.
vs. 34% of other cities

78% LEADERS — Give an official or office responsibility for AI governance and complaints.
vs. 28% of other cities

68% LEADERS — Set policies to limit the citizen data collected and retained. Give citizens control over their data.
vs. 49% of other cities

57% LEADERS — Document resident and community needs
vs. 22% of other cities

Survey Question: Which of the following steps has your city taken to build a people-first, AI-powered city?

Humans at the center

Reykjavik’s AI strategy around data and trust

In Reykjavik, AI doesn't lead the conversation—data does, and people come before both. That's the guiding philosophy of Inga Rós Gunnarsdóttir, Chief Data Officer for the City of Reykjavik, who has spent almost five years building the foundation that now lets the city to deploy AI to serve the public good.

“I’ve always felt that the main question should not be how we can use a technology, but instead focus on what problem we are really trying to solve and then move forward from there,“ she says.

Building the data foundation

Reykjavik is one city, but operates as seven largely independent departments, delivering more than 150 citizen-facing services and 50 internal ones across some 400 workplaces. When Gunnarsdóttir started with a staff of three soon after the COVID pandemic began, residents suddenly needed to access city data remotely. But that data was scattered, inconsistently defined, and duplicated across systems.

Their fix was a federated data system: each department gets its own secured “data API” containing its core operational data, accessible only to vetted specialists within that department. From there, departments choose what data to share into a central warehouse for cross-departmental analysis. This allows the city to answer questions no department can answer alone, such as how school infrastructure use compares to enrollment trends citywide.

“Our goal is to synchronize the data architecture across the whole city,” she says, while keeping departments as autonomous as possible.

Because the architecture insulates departments from their underlying source systems, “they have more room to change vendors or update source systems without it having a huge impact on the data environment,” Gunnarsdóttir says. “This is a kind of flexibility that older government IT systems often struggle to provide.”

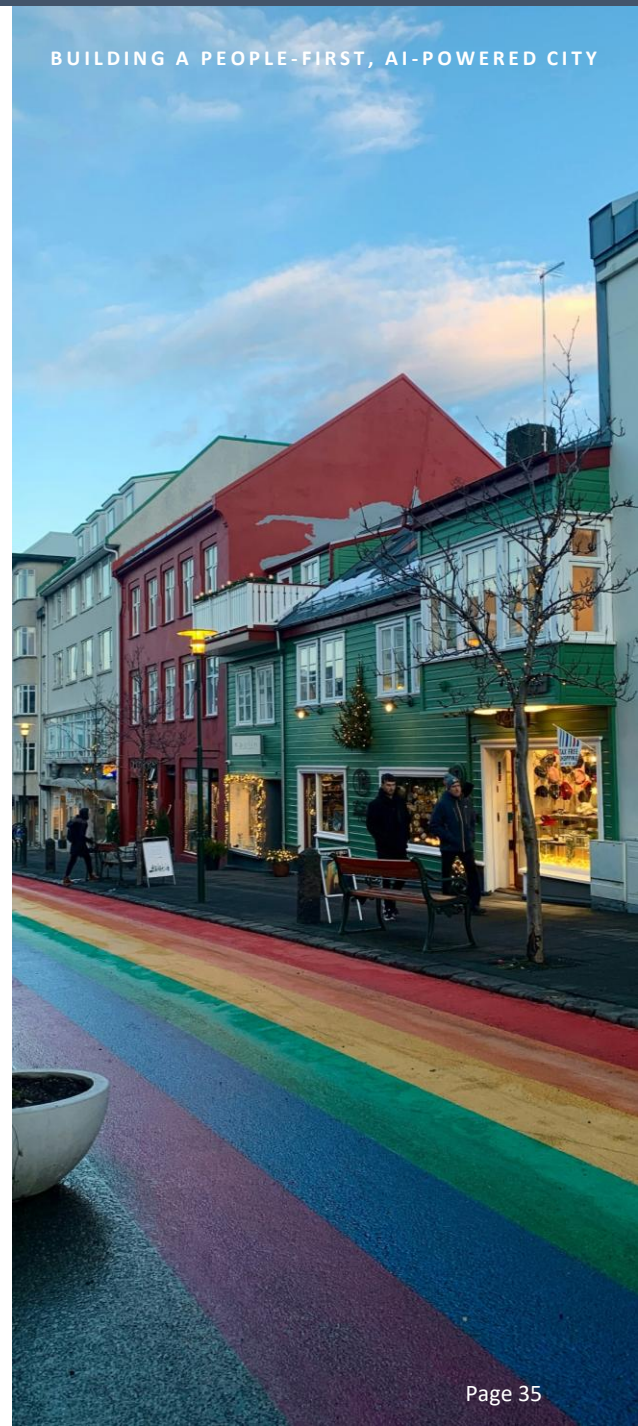
Governance built for citizen trust, not just compliance

Gunnarsdóttir´s team built governance into the data architecture itself. Her data office, which includes a governance officer, classifies every dataset into one of four risk tiers, from fully open to top-secret, aligned with the EU AI Act. The AI output is risk-classified separately from its input data, since a tool using open data can still generate results that affect citizens' legal rights. “The risk of the output sometimes becomes much higher than the dataset that's actually being used,” she says.

That discipline explains why, despite the sophistication of Reykjavik's data infrastructure, only a small share of its 200-plus services are currently AI-enabled. The city follows a sequenced approach to workflow optimization. It starts by understanding a process fully, then redesigning it around citizens before applying AI. “You can't securely implement AI on top of unclear process,” she says, “because you don't know how to guide it or verify the output.”

Redesigning a broken process before automating it

The clearest proof point is a process the city redesigned for children needing evaluation for learning differences like ADHD or dyslexia.



Humans at the center (continued)

Redesigned processes and radical transparency

Under the old system, paper evaluations from schools and parents had to be physically carried—often by a child prone to losing things—then combined into folders, driven across the city by government workers, and distributed to specialists.

Wait times stretched three to four years, long enough that families sometimes had to restart the process before it finished. “I have a great deal of respect for the people who kept this process going, because it must have been incredibly demanding,” Gunnarsdóttir notes.

Rather than digitize the existing steps, the city restructured around the goal of serving children and their families better. Two departments; the Department of Welfare and the department of Education and Youth, merged their specialist teams to work closer to schools, and the entire application and screening process moved online, with families able to track status through the city's resident portal.

It's a model Reykjavik now applies broadly: ask what outcome a service should deliver for the citizen, then design the process—and the technology—backward from there.

Earning trust through radical transparency

Reykjavik's central bet on public trust is transparency. The city publishes an open data platform—called “Reykjavík City’s Data Buffet"—that presents municipal data as plain-language stories and simple graphs, alongside the raw datasets behind them, so residents can verify claims themselves. Graphs are designed for screen readers and color accessibility; teachers use the tool to teach data literacy.

The approach paid off during a public uproar over kindergarten waiting lists, which residents felt were opaque and susceptible to favoritism. Publishing the real admissions data and process didn't eliminate the waitlist, but it alleviated the anxiety. Once families could see and plan around real numbers instead of rumor “then, the conversation seemed to settle,” Gunnarsdóttir says.

Training AI on local values

Reykjavik has also built its own glossary of city-specific terminology to adjust the AI tools it has vetted for internal use, such as Microsoft Copilot for staff and Google Gemini for teachers. This ensures consistent translation and meaning in Icelandic, which was one of the first smaller languages adopted by major AI labs. In addition, the city measures the ROI of every new AI deployment, including its impact on the front line, service quality, or time saved.

By setting clear goals and ensuring clean metadata, Gunnarsdóttir believes it is possible to train an AI model to be “people-first” by design. “You do your best to install the right values and correct their behavior, but you always need to monitor them closely.”

She adds that this is especially true if you use third-party AI models like the big LLMs, which have their own built-in values. “You can try to fine-tune an outside model’s behavior, but if you don’t know its belief system, you can never be sure of the outcome.”



02
Vision and outcomes

Leaders build an AI vision and roadmap tied to city goals

"Cities should begin with public problems and institutional needs, not with technologies," says Erik Johnston of Arizona State University. Leaders do just that, creating a shared, long-term vision tied to tangible city goals. They then turn that vision into a disciplined roadmap by prioritizing high-value use cases, defining measurable outcomes, and assigning responsibilities.

Leaders embed governance from the outset through policies for when AI should augment, automate, or autonomously execute work. "Leaders should define AI guardrails for use cases, outlining where AI should augment human expertise, automate routine tasks, or operate autonomously. By deploying AI with intent in mind, cities can build greater transparency, accountability, and trust in how AI is deployed, says Michelle James, Vice President, CTIA.

Leaders treat AI strategies as living frameworks. They conduct regular performance reviews to identify what is working, adjust to changing resident needs, and communicate results clearly and regularly.

86% of Leaders have integrated AI plans spanning departments vs 15% of others

Percentage of Leaders that actively or widely implement elements of an outcome-driven vision

100% LEADERS
Create a structured roadmap for AI implementation, with timelines, roles, and accountabilities.
vs. 29% of other cities

95% LEADERS
Build a long-term vision for AI transformation aligned with social, service delivery, and economic goals.
vs. 31% of other cities

95% LEADERS
Identify the most effective AI use cases and define clear metrics to measure success.
vs. 33% of other cities

84% LEADERS
Regularly review and refine AI strategy based on performance, citizen needs, and changing conditions.
vs. 15% of other cities

78% LEADERS
Establish clear policies for when AI should augment, automate, or autonomously execute work.
vs. 24% of other cities

68% LEADERS
Demonstrate and communicate the business case, public value, or expected ROI on major AI programs.
vs. 12% of other cities

Survey Question: How much progress has your city made in the following areas?

02
Vision and outcomes

Leaders measure AI success through a triple-bottom-line lens

For many cities in our study, such as San Antonio, Taipei, Lagos, and Amsterdam, the question is not simply whether AI saves money, but whether it improves outcomes for people and builds environmental resilience.

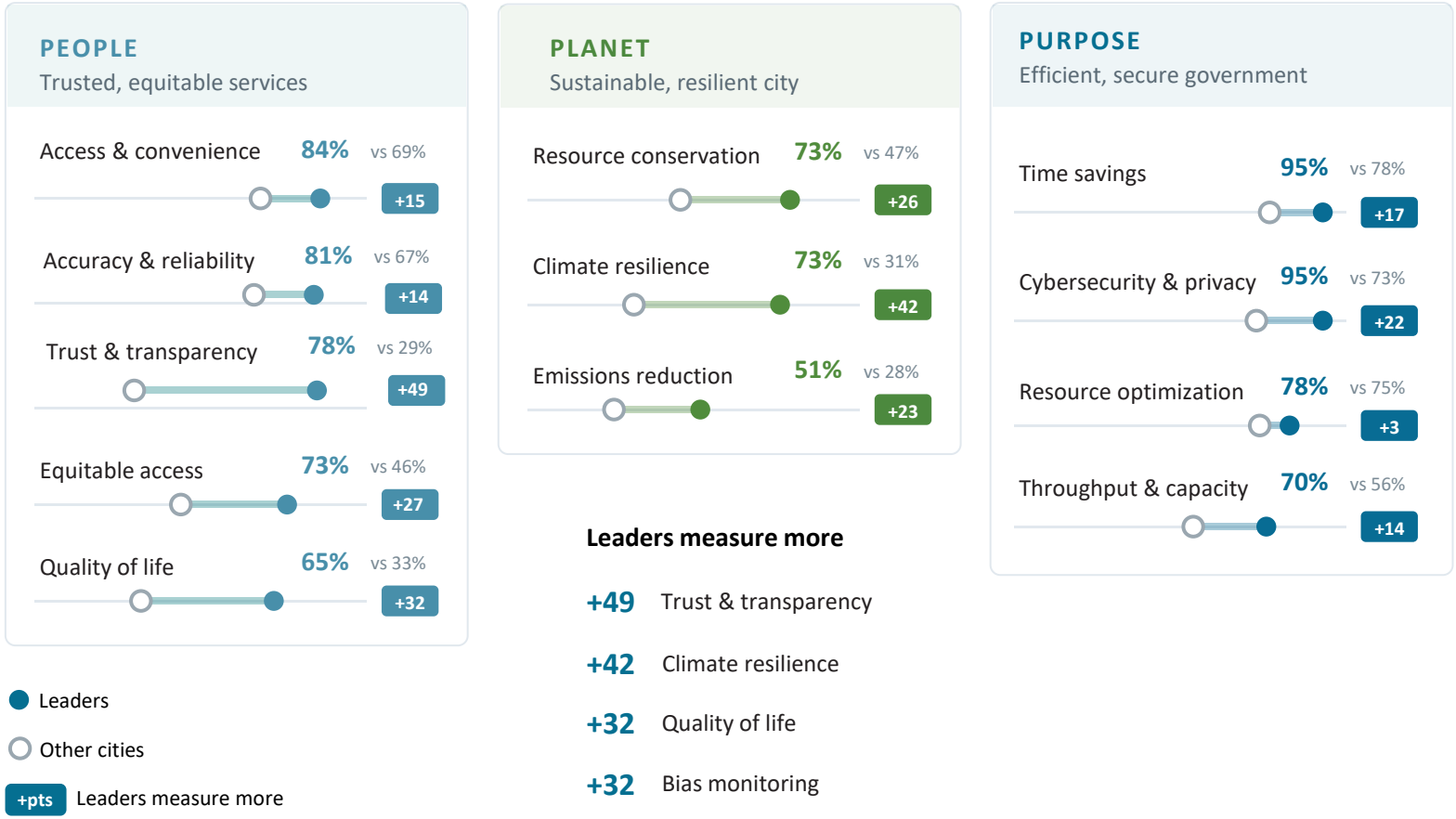
That is why Leaders combine an AI vision with a triple-bottom-line approach to measuring AI success—balancing resident outcomes (People), environmental stewardship (Planet), and operational value (Purpose).

Leaders do a much better job than others on measuring impact on **People.** Leaders not only track service access, convenience, and reliability, but they are much more likely to gauge personal impacts around trust, equality, and quality of life.

Leaders also pay far more attention to **Planet.** They are far more likely to assess resource conservation, climate resilience, and emissions reduction.

On **Purpose**, Leaders prioritize time savings, stronger cyber and privacy protections, and more productive use of staff and resources—not unlike other cities.

Judging impact on the 3Ps of sustainability



Leaders measure more

- **+49** Trust & transparency
- **+42** Climate resilience
- **+32** Quality of life
- **+32** Bias monitoring

Survey Question: Which metrics does your city use to measure the success of AI initiatives?

People, Planet, and Purpose

Yantai’s triple-bottom-line approach to AI development

While many cities are adopting AI one department at a time, Yantai is redesigning how municipal AI is built, governed and shared. Its approach has been recognized as a replicable model for other Chinese cities—and cities worldwide.

In 2023, Yantai, a city of roughly seven million people in China’s Shandong province, established an AI taskforce for the government and public services. In 2025, the city built a unified municipal AI platform supporting more than 28 public services. It has logged more than 10 million large-model calls while keeping citizen trust, governance, and employee wellbeing at the center of its strategy.

One foundation, not endless silos

Rather than letting individual departments procure their own AI tools, Yantai centralized its foundation. Its “1+3+1” architecture—one unified service portal, three platforms for computing power, model training, and application development, and one monitoring layer—gives every department shared access to models such as DeepSeek and Qwen without duplicating infrastructure.

Departments still apply for computing resources based on need and to preserve flexibility, but the underlying capability is shared. That discipline has already paid off: the platform has released more than 40 AI agents and reduced the fragmented, duplicative spending.

Personalizing services without leaving anyone behind

Yantai's stated goal is to shift government from “people looking for services” to “services finding people.” Its “Yan Xiaoman” assistant now covers more than 80 administrative categories and enables residents to complete 90% of routine requests through natural-language conversation.

Notably, the system’s success rate among residents unfamiliar with smartphones, often older citizens, is three times higher than with traditional digital channels. This was a deliberate design choice to avoid widening the digital divide.

Elsewhere, an AI-assisted review process screens more than 300 economic-status data points to determine eligibility for six types of social assistance, cutting manual pre-review time by more than half while reaching 86% assessment accuracy.

Earning trust through small wins and visible safeguards

Yantai's leadership recognized that public trust had to be built. The city began with 14 low-risk, high-impact pilots rather than a sweeping rollout, letting residents experience faster approvals and better service before expanding AI use.

Each success was publicized, reinforcing that AI was delivering tangible results rather than abstract promises. This approach worked: Yantai’s AI programs have grown from 14 to more than 28 use cases without triggering the public backlash seen elsewhere.



People, Planet, and Purpose (continued)

How Yantai drove results through trust and governance

Underpinning that confidence is a governance structure built for accountability, not just compliance. All large models run on an isolated government network, so citizen data never leaves city systems. A three-party structure divides responsibility: the Municipal Big Data Bureau oversees security and coordination, business units certify compliant data use, and technical teams handle operations.

Every AI decision is logged and traceable, while sensitive information is automatically flagged and access-controlled before reaching a model. Governance is embedded throughout an AI agent's lifecycle, from design through retirement.

Investing in the people running the system

Yantai's government employees are stakeholders, not bystanders. Frontline staff have received ongoing AI training that combines industry expertise, case studies, and hands-on practice, while simplified internal standards help nontechnical employees use the tools confidently. As repetitive work falls—including more than half of pre-review time in social-assistance processing—staff move to higher-value, judgment-intensive roles.

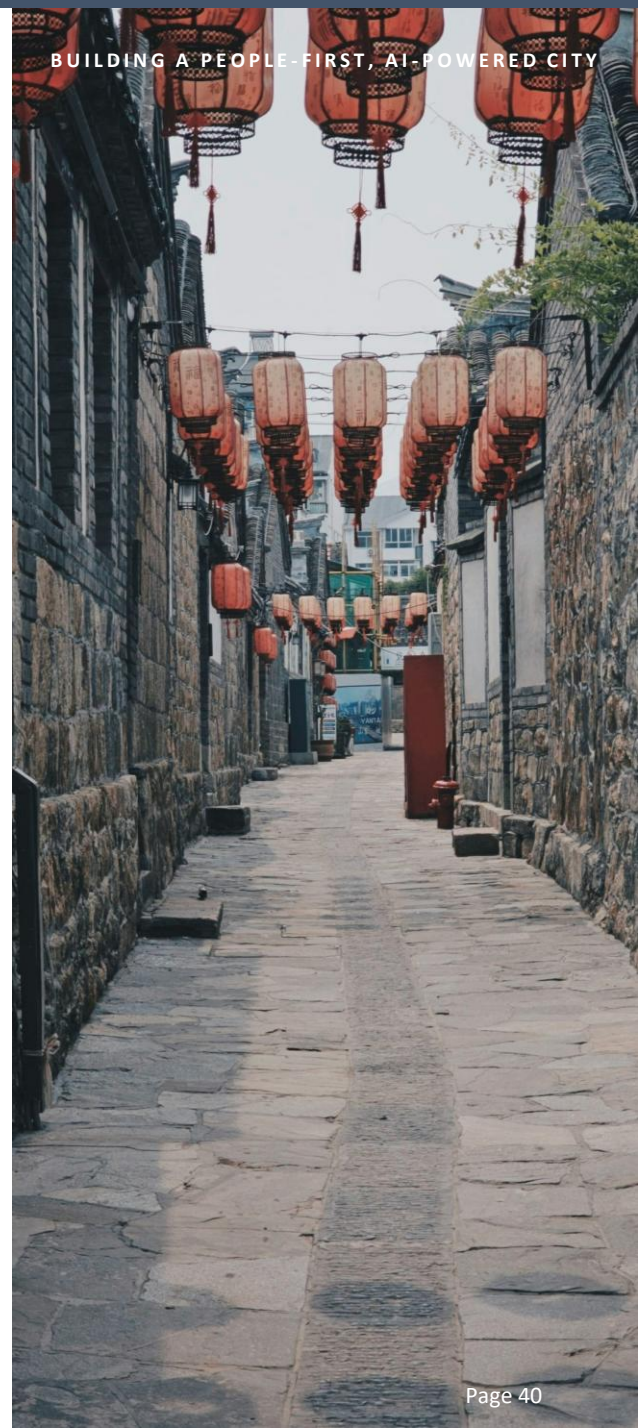
Boosting the triple bottom line

Yantai's AI strategy is focused on the three Ps of performance:

People. AI is accelerating social-assistance decisions, expanding access for residents less comfortable with technology, and shifting services from reactive to proactive. For employees, it means less drudgery and more meaningful work—which supports morale, retention, and productivity.

Planet. AI analysis of citizen complaints identifies pollution and environmental issues faster, enabling quicker response. Centralized computing also reduces duplicated hardware and energy use, supporting a more resource-efficient AI footprint.

Profit. Centralized computing and model infrastructure have cut construction and operating costs, even as use scaled to tens of millions of model calls. Yantai is also turning AI into a local growth engine: its "front office + back factory" model pairs manufacturers' production challenges with solutions built by Inspur Cloud in Cishan AI Valley. The goal is more than 50 industry-specific models by 2028, from marine industries to biomedicine.



03
Governance and security

For Leaders, governance turns AI vision into action

For Leaders, governance is not a brake on AI innovation, it is an accelerator—providing the clarity need to scale AI responsibly. Leaders begin by protecting what matters most: sensitive city and resident data. For Bayan Konirbayev, Chief Digital and AI Officer of Alatau City, "sovereign AI is a must have," since it safeguards valuable local data from security breaches and geopolitical disruptions.

To protect their data, Leaders embed cybersecurity, incident response, and risk management throughout the AI lifecycle—from strategy and procurement to deployment and operations. They also set clear expectations for responsible use, covering ethics, transparency, and model bias, while establishing rules for higher-risk applications involving video, biometrics, geolocation, and sensor data.

Leaders know that effective governance requires rigorous testing and auditing to spot gaps before they can do harm. Rodulfo of Coral Gables welcomes audits "because the audits always find something that we can improve."

86% of Leaders say they have put in the necessary governance mechanisms vs 34% of others

Percentage of Leaders that actively or widely implement elements of AI governance and data security

100% LEADERS
Build cybersecurity and incident-response requirements into AI strategy, procurement, deployment and operations.
vs. 50% of other cities

95% LEADERS
Establish policies and controls to maintain sovereign control over sensitive city and citizen data.
vs. 43% of other cities

89% LEADERS
Enforce responsible AI principles and practices covering ethics, transparency, and model bias.
vs. 24% of other cities

86% LEADERS
Systematically assess and manage legal, operational, and reputational risks related to AI.
vs. 16% of other cities

81% LEADERS
Set the rules for the use of video, biometric, geolocation, and sensor data in IT systems.
vs. 28% of other cities

73% LEADERS
Test, audit and risk tier AI models, with humans in the loop to review AI decisions.
vs. 21% of other cities

Survey Question: How much progress has your city made in building AI governance and data security?

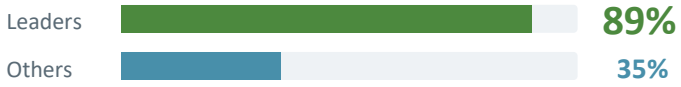
03
Governance and security

How Leaders organize for AI governance

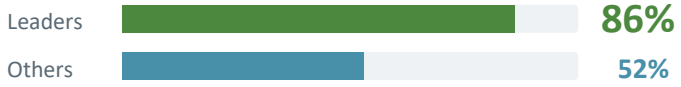
AI-leading cities build an operating model for AI that combines **innovation capacity, executive accountability, and effective oversight**. They establish three organizational mechanisms that help departments move responsibly and transparently from experimentation to scalable public value.

Percentage of Leaders using specific governance structures to oversee AI vs. others

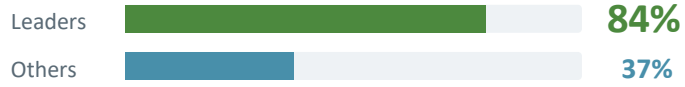
An innovation lab to help our city design, test, and scale AI urban solutions.



Named city-wide AI lead, such as a Chief AI Officer, responsible for our city's AI strategy.



Dedicated city-wide AI governance body



Innovation labs

Innovation labs give cities a dedicated capability to identify priority challenges, co-design solutions with agencies and partners, prototype AI applications, and evaluate whether they are ready to scale. They help prevent departments from repeatedly starting from scratch and create a disciplined pathway from pilot to production. Dublin's Generative AI Lab, launched in partnership with ADAPT, the AI research center at Trinity College Dublin, illustrates this model.

Named city-wide AI leaders

CAIOs, CIOs, CTOs, or equivalent leaders create a clear point of accountability for the city's AI agenda. Their mandate typically spans strategy, investment, data foundations, procurement, risk management, workforce capability, and coordination across agencies. Dubai has gone further than most, appointing Chief AI Officers across 22 government entities.

Dedicated AI governance bodies

Dedicated governance bodies bring together the perspectives needed to deploy AI responsibly: technology, operations, legal, privacy, cybersecurity, procurement, and resident trust. They can establish standards and risk tiers, accelerate low-risk applications, and subject higher-impact uses to deeper review. San Antonio's Emerging Technology Advisory Committee, Vancouver's multidisciplinary AI Advisory Committee, and Dublin's GenAI Governance Group illustrate this cross-functional model.

Survey Question: How is your city currently organized to plan, govern, and oversee the use of AI?

Toronto’s people-first AI formula

Building the governance foundations for success

"We haven't sold a dream," says Neena Sethi, Director of Digital Policy in the Office of the CTO. "We are taking a very practical approach to AI enablement and building up credibility by testing and learning."

Toronto’s success does not stem from racing to deploy the latest tools. It comes from creating the conditions for AI to deliver sustained public value: AI-ready data, robust governance, cross-functional leadership, a robust AI ecosystem, and deep talent pool.

Toronto's AI ambitions rest on a simple proposition: AI must work for residents. The city uses AI to improve public services and help public servants work more effectively—while retaining human oversight and earning trust before expanding.

A civic mandate for equity

Toronto's people-first approach begins with public values. City Council has made equity, reconciliation, anti-racism, and improved outcomes for underserved groups central to the city's agenda.

"From the onset, we had council support for a people-first strategy," Sethi says. She calls the alignment between political leadership and the public service a "key enabler," ensuring that AI advances the city's civic mission. Before investing, the city asks whether a proposed AI use will improve public services, reflect civic values, and justify the operational and ethical commitments required at scale.

Governance before action

Toronto's Responsible AI program brings together enterprise data and AI specialists with digital-policy leaders. "The collaboration between the technical and the public policy team has made a huge difference,“ Sethi says. Technology governance evaluates technical requirements, while an additional AI-governance layer considers human impacts, and legislative obligations.

Senior sponsorship extends across the Chief Technology Officer, City Clerk's office, Chief People Officer and cybersecurity leadership. This cross-functional structure treats AI as an enterprise capability and gives the program authority to set common guardrails and embed them across city divisions.

Cybersecurity is built into each initiative: Use cases do not advance until cybersecurity requirements and risk-treatment recommendations have been addressed. "We don't enable anything without cybersecurity at the table," Sethi says.

Readiness as discipline

Toronto distinguishes between the data and digital infrastructure needed for AI and the generative AI tools employees use in daily work. Each requires different governance, readiness assessments ,and adoption plans. The city works with divisions prepared to engage, assesses organizational capability and moves from proof of concept to pilot to broader deployment only when conditions warrant.

"Organizational readiness is not a single action," Sethi explains. "We really look at organizational readiness before deploying, getting everything set up properly before hitting execute.“

The Toronto Data Platform, the city's first federated data environment, is a key part of this foundation, bringing fragmented data together in a



Toronto’s people-first AI formula (continued)

Three AI initiatives to improve everyday services

shared data lake for analytics and future AI applications. "We have a roadmap to bring different divisions on board," Sethi says, including assessments of readiness and data clean-up before migration.

AI for everyday services

Toronto has recently launched three major AI initiatives. The first is a Toronto AI Assistant that gives residents a faster way to find information on Toronto.ca. The city receives more than one and a half million interactions each year, with roughly 60% being general inquiries. The assistant currently just answers questions, but a future phase could accept service requests and route them to the appropriate department.

A second initiative uses AI to pre-check building-permit applications, addressing delays caused by incomplete submissions in a city facing a housing crisis. The tool flags missing information before formal review, reducing back-and-forth between applicants and permit staff. As Sethi notes, it is "speeding up the processing time," but not making permitting decisions itself.

The third initiative is an enterprise-wide rollout of Microsoft Copilot to the city's 42,000 employees. Toronto first tested the integrated version through defined use cases reviewed for privacy, information management, legislative compliance and cybersecurity. Initial approved uses include document summarization, report drafting and routine administrative support; the city is working with business units and Microsoft to assess additional applications.

Transparency earns trust

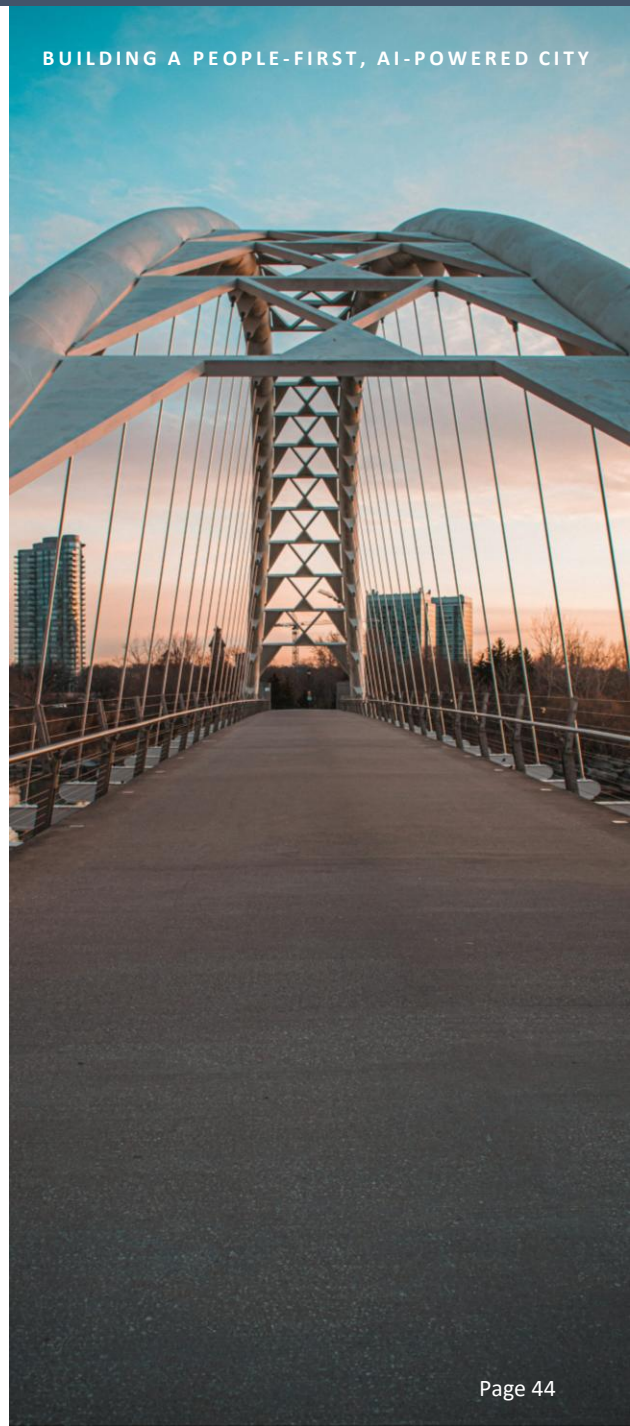
Sethi notes that confidence in government and AI remains low and that governments must demonstrate both public benefits and safeguards. "We do have some things to do to build public trust on the use of technology and AI," she says. “As a society, we are learning as we go."

The city's response is transparency. Toronto is publishing an AI register that identifies live uses, including the Toronto AI Assistant, Building Permit Application Pre-check Tool and Copilot. Public engagement, City Council reporting, and library-led digital-literacy programming help residents understand AI's benefits, limitations and continuing human accountability. "We're taking small and intentional steps," Sethi says. That restraint is a strength: trust grows when cities are clear about what AI does, where its limits lie and who remains accountable.

An ecosystem ready to scale

Toronto's strategy also draws strength from a rich AI ecosystem: the University of Toronto, Vector Institute, technology businesses, researchers, startups and skilled workers. The city's quality of life helps it attract talent, even as it works to help smaller local firms adopt and scale AI.

By combining trusted data, multi-level governance, cross-functional leadership, practical service delivery and a vibrant ecosystem, Toronto is laying the foundation to scale AI responsibly—and keep people at the center of transformation.



Emerging AI standards

New regulations are starting to shape municipal AI adoption. Some city leaders are already translating regulatory frameworks into implementation controls as they strive to protect citizens without preventing responsible experimentation.

Others are reluctant to delegate greater autonomy until legal responsibilities become clearer. In the words of Frank Zerunyan, Mayor of Rolling Hills Estates: “Until I know more about the rules and the laws that AI will be subject to, I am not prepared to turn the keys over to AI.”

From principles to implementation

International standards help cities put responsible AI into practice. ISO/IEC 42001 sets requirements for an AI management system, while ISO/IEC 23894 provides risk-management guidance. ISO/IEC 42005 complements these through assessments of potential impacts on individuals, groups, and society. Together, they connect organizational processes, risk controls, and societal considerations.

These standards serve different purposes. Of the three, only ISO/IEC 42001 is a certifiable requirements standard. Certification supports governance but does not, by itself, establish legal compliance. Cities must still meet applicable obligations, including privacy and fundamental rights assessments where required.

For cities, the practical priority is understanding which rules apply to each use case and who is accountable. AI used in education, employment, essential public services, infrastructure, or law enforcement may carry different obligations depending on its purpose and risk. Cities must also distinguish their roles as users of AI systems from that of a developer or provider.

Rather than waiting for every legal question to be resolved, cities can strengthen their foundations: inventory AI systems, assign responsibilities, assess risks, maintain human oversight, and document decisions. This creates evidence for both responsible deployment and regulatory readiness.

A common language for progress

“For city leaders, the practical question is how to build sufficient assurance to move forward,” says Denys Nazarenko, advisor to the CIO in Kyiv. He points out that current initiatives, such as the Mayors AI Forum, of which Kyiv is a member, offers opportunities for cities to share approaches and learn from peers.

ThoughtLab’s eight-pillar maturity model complements international standards by benchmarking the ability of cities to translate responsible AI into public value. It connects governance with strategy, human-centered design, data, infrastructure, services, talent, advanced solutions, and partnerships—helping cities identify gaps, prioritize investment, and demonstrate progress in people-first AI transformation.



04
IT and data foundation

Leaders modernize the IT backbone before scaling AI

Leaders start by building a strong technology foundation for AI. They replace fragmented legacy systems with scalable, secure IT platforms; provide fast, reliable connectivity among people, devices, and systems; and make sure data is high-quality, secure, and shared across departments.

For Leaders, data readiness is not a one-time project but an ongoing process, and AI itself helps drive it. They use AI to improve data quality, analyze unstructured information, and spot gaps, so that data becomes more useful across services and for residents. As one Lucknow city official put it, AI can help the city "improve our data and make it useful for the people living here."

With strong foundations and usable data in place, Leaders do more than improve workflows within individual departments. They connect data, processes, and decisions across urban domains, so that mobility, public safety, infrastructure, and environmental management work as cohesive systems rather than separate functions. Tangshan, for example, combines AI analysis across municipal engineering, landscaping, sanitation, flood control, digital city management, and enforcement. The practical result is that problems are spotted sooner and frontline teams respond faster.

Percentage of Leaders that actively or widely implement elements of IT and data infrastructure needed to support AI innovation

95% LEADERS
Replace fragmented legacy systems with modern IT platforms that scale AI solutions effectively.
vs. 37% of other cities

95% LEADERS
Provide connectivity and infrastructure for fast, reliable data flows between people, devices, and systems.
vs. 61% of other cities

95% LEADERS
Integrate AI solutions across multiple departments or domains.
vs. 22% of other cities

95% LEADERS
Ensure consistent, reliable and high-quality data that is integrated across departmental silos.
vs. 40% of other cities

92% LEADERS
Use AI to monitor and automatically optimize the physical environment and urban infrastructure.
vs. 39% of other cities

84% LEADERS
Use AI to improve data creation, migration, security, and management.
vs. 19% of other cities

Survey Question: How is your city currently organized to plan, govern, and oversee the use of AI?

04
IT and data foundation

Building AI into digital solutions

Leaders leverage advanced digital tools and platforms to accelerate AI transformation. Here are the solutions they use most often, with examples of how cities are applying them.

	Solution	Leaders using it	
1	**Geospatial platforms / digital twins** Leaders use them to test AI in real time	95%	**Kyiv, Ukraine:** Kyiv's "Situational Center" functions as a GIS-based digital twin. The city uses it to model winter-resilience scenarios—such as the impact of damage to heating infrastructure on households' electricity access—and to assess the likely effects of missile attacks on affected areas and populations. Kyiv is also using AI to analyze unstructured citizen requests and identify localized service issues.
2	**Interoperability / API layers** Leaders use these to facilitate data exchange between city systems	92%	**Ekurhuleni, South Africa:** A city official reported that AI-integrated data platforms have improved collaboration, interoperability, and information sharing across departments, making service-related tasks easier to handle. This illustrates the connected data environment that interoperability and API layers make possible.
3	**Integrated cross-department data platforms** Leaders use them to store data from different departments	86%	**Melbourne, Australia:** The city is building a unified data and AI platform that supports more than 700 production datasets and over 40 AI use cases. Its teams can use a natural-language data assistant to query complex information, including pedestrian-flow and other operational data, turning raw data into real-time insights.
4	**Workflow / case-management platforms** Leaders use them to track cases and processes from start to finish	86%	**Miami, United States:** The city uses digital permitting systems—including ePlan and iBuild—to allow applicants to submit plans, track applications, receive review comments, schedule inspections, and manage permit-related activity online. The city has also selected Oracle Permitting and Licensing to consolidate regulatory services and introduce AI-enabled workflow automation intended to accelerate reviews and improve application tracking.
5	**Security operations centers** Leaders operate them to monitor and respond to cyber threats	73%	**San Antonio, United States:** The Alamo Regional Security Operations Center (ARSOC) brings multiple organizations together in a shared cyber-defense operation, using sophisticated software to monitor and address cybersecurity threats collectively.
6	**City operations dashboards** Leaders use dashboards to monitor incidents, traffic, and service requests	70%	**Victoria, Canada:** The city has piloted CityROVER, an AI-enabled image-capture system mounted in municipal vehicles. It detects potholes and other road deficiencies, records their location and severity, and presents them for supervisor review—helping the city prioritize maintenance issues without relying solely on manual inspections.

Infrastructure before algorithms:

How Memphis built the foundation for AI success

In Memphis, AI isn't about chasing headlines—it's about fixing a pothole before residents call to complain or alerting a fire marshal about a person sleeping in the cold. That pragmatic, people-first approach is the essence of the city's AI strategy, according to Eric Keane, CIO of Memphis.

Keane joined Mayor Paul Young's administration at the beginning of 2024 after 35 years at FedEx, bringing with him a proven business formula: build a data, governance, and IT foundation first, then use it to drive AI innovation efficiently and responsibly. As Keane says: “We don't do technology for technology's sake. We use it to serve citizens.”

A business playbook for city government

Keane's first move as CIO had little to do with AI itself—it was about IT ownership and discipline. Unlike many cities that outsource their technology stack to vendors, Memphis's IT team runs its own systems end to end. This allows the city to ensure an integrated, governed foundation.

To accomplish that meant significant groundwork before any AI solutions could go live, including an $8 million modernization of treasury, tax, and HR systems that had been spread across four or five platforms; a new enterprise video management system, since none existed; consolidation of five separate GIS platforms into one; and roughly $4 million in fiber optic cable to connect street intersection cameras.

“You need the foundation, plumbing, and electricity in place, along with accountability, before you adopt AI,” says Keane.

Turning cameras and sensors into one ecosystem

Memphis built a shared video and IoT infrastructure that supports many uses cases at once. Since standing up dedicated video streams and compute for every new application would be impossible to sustain at scale, the city built what Keane calls a "detect-contextualize-alert-act-analyze" framework. Each video stream is processed once, then interrogated for multiple use cases simultaneously: a single camera feed can flag a pothole, spot a clogged drain, and support a safety alert.

The results have been impressive. Cameras on roadways and sidewalks automatically open tickets for potholes and clogged drains in the city's 311 system. Last year alone, the city filled roughly 7,000 potholes and cleared about 1,300 clogged drains this way. “This is an example where the citizens don't have to call us to tell us that we have a problem,” Keane said.

The same ecosystem now supports agentic use cases. During a cold snap, the fire department asked the city to help identify locations used by unhoused residents seeking shelter from the cold. Keane's team built an AI program that continuously analyzes conditions and alerts the right fire marshal.



Infrastructure before algorithms (continued)

An emphasis on governance and transparency

A newer pilot, developed with the University of Memphis, uses existing video coverage to map curb space downtown, including legal parking spaces, time limits, and metered spots. The city's aim isn't enforcement, Keane says. By routing that information through apps like Google Maps and Waze, visitors are guided to open spaces, without the need to drill or install new sensors.

Making governance an accelerator, not a brake

Memphis treats data governance as a precondition for AI use. Keane describes an automated system that recognizes when a data field contains personally identifiable information and tags it instantly, excluding it from data extracts and reports without manual review. The city applies similar protections to video, particularly footage involving police activity, and it has built data-sharing agreements that govern what happens to city data once it reaches vendors.

Reflecting the central role of data governance, the city recently moved its Office of Performance Management to adjoin the offices of the COO and Mayor. "It just highlights the importance of the data and how it's used," says Keane.

Building public trust through transparency

Keane has had to navigate public anxiety over both surveillance cameras and large-scale data center investment, since Memphis is home to xAI's Colossus supercomputer. His approach leans on transparency and comparison rather than persuasion alone.

When the city rolled out thousands of AI-enabled cameras, the police department posted data on YouTube showing resulting arrests and prevented incidents. "Giving that feedback to the community has worked very well," Keane says.

He also points to infrastructure design choices that respond to public concerns. For instance, after council members objected to the police department's flashing blue camera lights, the cameras along historic Beale Street were designed to resemble old-fashioned lamps instead.

In a similar vein, the city published a detailed accounting of the tax revenue generated by Colossus and how it was spent. The website for Memphis Light, Gas and Water also carries a one-page comparison of energy consumption for data centers with those of other users such as golf courses. For Keane, the lesson is simple: "You've got to talk about the facts and the opportunities and make sure residents are basing their views on clear, accurate information."

What's next

With its data and video infrastructure now in place, Memphis is looking to extend its model into the air. The city is developing a drone program that would fly fixed-wing routes over Memphis to gather aerial imagery to track street conditions, trash, and infrastructure at a scale the city could not achieve on the ground.

“We've got the right platform here in place to start walking in that direction,” says Keane. “The sky is not the limit.”



05 Citizen experiences

Leaders reinvent resident experiences with AI

"Residents of our city already use digital channels for many city services. Our goal is to make those experiences even more personal, proactive and seamless with AI."

These words from Tel Aviv's CIO reflect how Leaders are redesigning services around the experience people expect everywhere else: fast, simple, personalized and reliable. The aim is to make city hall as easy to use as a favorite retailer—helping residents find services, complete tasks, receive updates and resolve issues without navigating onerous departmental structures.

AI automates routine questions, document checks, case routing and administration, reducing waits and freeing frontline staff for complex cases, empathy and human connection. Leaders use it to anticipate needs, prevent failures, and improve responsiveness—not merely to digitize old processes.

Leaders measure success not just through efficiency gains, but through resident satisfaction, accessibility, inclusion, completion rates, and outcomes. AI-enabled engagement platforms help cities listen continuously, identify emerging needs and ensure services work for every community.

Percentage of Leaders that actively implement specific processes and platforms to improve resident experiences and services

97% LEADERS — Use AI to make resident services more reliable, fast, efficient, and human-centered.

vs. 56% of other cities

81% LEADERS — Provide AI-enabled self-service capabilities that reduce friction for residents.

vs. 40% of other cities

78% LEADERS — Leverage AI to free frontline staff from routine tasks, enabling them to focus on higher value resident support.

vs. 26% of other cities

70% LEADERS — Measure improvements in resident satisfaction, accessibility, inclusion, and service outcomes.

vs. 6% of other cities

62% LEADERS — Use AI-driven public engagement platforms to gather and analyze resident input at scale.

vs. 11% of other cities

51% LEADERS — Draw on data from multiple sources to personalize services for residents.

vs. 6% of other cities

Survey Question: How much progress has your city made in using AI to improve resident experiences and services?

05 Citizen experiences

Six cities show how AI can improve citizen experiences

Leaders use AI to make routine citizen services faster and easier, reducing wait times and staff workload. They keep people involved in complex decisions and personal support, creating more responsive and trusted resident experiences. Here are just some of the many examples.

Tel Aviv

Personalized digital experiences

Tel Aviv is using AI to make established digital service channels more personal, proactive and seamless. AI helps residents find the right city service, receive quick answers, and complete simple requests online. It is used by both residents and staff, resulting in less routine work for municipal staff.

Tucson

24/7, unified self-service

Tucson's in-production digital helper answers routine questions and validates public documents for residents and call-center staff, reducing wait times for repetitive checks. The city also aims to create a one-click platform combining utilities, housing permits, and licenses, while retaining human authority over final decisions.

Tulsa

Quicker response to citizens

Tulsa applies AI to citizen-request logs to identify emerging needs and allocate resources proactively. The city links this approach to quicker issue resolution and improved response times and resident satisfaction.

Muscat

Easier permitting processes

Muscat is scaling AI-based construction-permit validation citywide. When users upload blueprints or applications, AI scans and cross-references them against zoning laws, safety codes, and building guidelines. The city says this reduces manual workload and application backlogs, freeing staff for higher-value work.

Bogotá

Intelligent AI-enabled chatbot

Bogotá uses a virtual citizen assistant, a smart chat tool that answers citizen questions and files paperwork instantly. Widely scaled, it is used by citizens and small business owners and handles everything from tax questions to important updates. Citizens no longer wait in long lines for paperwork and basic questions.

Rotterdam

More reliable citizen services

Rotterdam improves day-to-day service reliability by predicting road-maintenance needs and managing traffic more effectively. Separately, its widely scaled 3D Digital Twin and Urban Simulation supports faster planning decisions, which are made by human officials, who retain final authority.

> "For our residents, the main benefit of AI is easier and faster access to city services. We want to build on this with AI that is simple, clear, and easy for everyone to use."

City of Utrecht
Mayor's Office

Survey Question: How much progress has your city made in using AI to improve resident experiences and services?

Helping people through AI

How Kyiv uses AI to meet citizen needs during war

In war-torn Kyiv, AI is proving its value where it matters most: helping save lives, sustain essential services, and support people in crisis. Built on a strong digital foundation and shaped around citizen needs, the city is combining digital platforms, AI-driven insight and resilient infrastructure to connect residents with vital information and assistance—securely and reliably.

Two platforms, one service experience

Kyiv City Council has consolidated what was once a scattered mix of paper-based and one-off digital services into two connected platforms: the Kyiv Digital mobile app and a companion service portal. Day-to-day needs, such as notifications and maps, sit in the app; services used less frequently, including one-time financial aid, are available through the portal.

“When we digitize any service, we do not just take a paper procedure and replicate it digitally,” says Victoria Itskovych, Director, IT Department, Kyiv City Council. “We re-engineer the whole process.” The city interviews residents and conducts workshops with them before beginning technical development to understand their needs.

Reaching nearly every resident

Kyiv Digital has almost four million users—nearly the entire adult population of the city. With support from Bloomberg Philanthropies, Kyiv re-engineered its one-time financial aid process, creating a portal that offers support for veterans, residents with homes damaged by war, and other vulnerable groups.

Building the AI layer

Kyiv is testing a chatbot built on an open-source language model and trained on the city’s own knowledge base. It will allow residents to ask plain-language questions about available services and how to apply across both Kyiv Digital and the service portal.

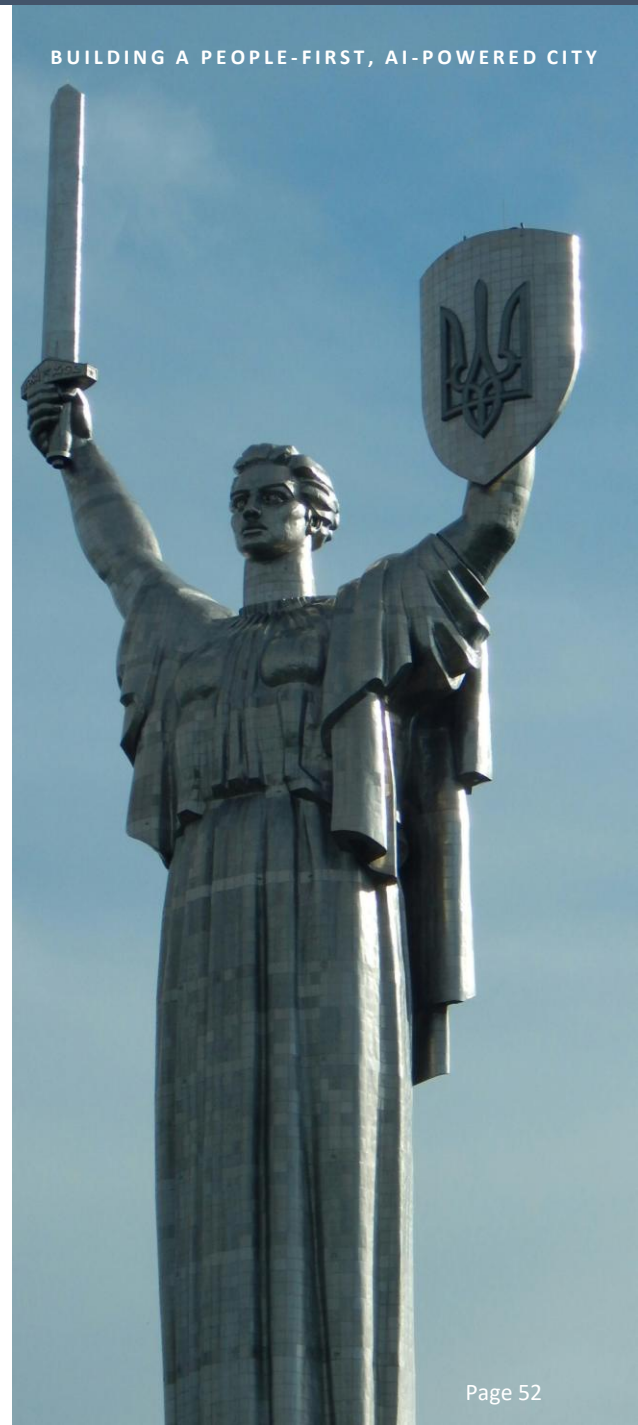
The city has deliberately prioritized accuracy over breadth. “It’s better that it will answer, ‘I don’t have this information,’ rather than make the information up,” Itskovych says.

AI also helps the city identify needs at scale. By analyzing unstructured resident requests, Kyiv can surface neighborhood-level problems—from heating and electricity disruptions to road conditions and other service failures.

Resilience people can depend on

Kyiv uses a geospatial digital-twin that models the implications of disruptions such as damage to heating infrastructure. AI helps assess who would be affected, where emergency “invincibility points” offering heat and electricity are needed, and how schools, hospitals and other essential services should operate under different scenarios.

The city is also developing a sovereign data lake to protect sensitive information. This urgency is shaped by experience: Kyiv’s infrastructure faced major cyberattacks shortly before a full-scale invasion. “With every project, we understand that we will be targeted. Not theoretically, but literally,” Itskovych says.



06 Future of work

Leaders rethink how humans and AI work together

Leaders prepare for how AI will change the way work gets done. Many start by analyzing which tasks will be handled by people or AI in the future. They then audit skills to find the gaps between the skills employees have and those they will need as their roles change.

Once the skills gaps and changing roles have been identified, Leaders provide continuous and role-specific training and upskilling (see next page).

Leaders also build local talent pipelines with education and industry partners. In Miami, a $15 million partnership between Miami-Dade County, the City of Miami, the Miami Downtown Development Authority, and the Knight Foundation is expanding Miami Dade College's applied-AI programs.

The result is multiple entry points into AI learning, from introductory courses and high-school dual enrollment to college-credit certificates, an applied-AI degree, and continuing education.

Percentage of Leaders that actively or widely implement processes aimed at preparing for the future of work in the AI era

97% LEADERS — Are identifying the AI skills and capabilities city leaders and their staff will need.

vs. 35% of other cities

97% LEADERS — Are partnering with universities, colleges or training organizations to build a pipeline of AI talent.

vs. 47% of other cities

95% LEADERS — Are providing regular AI training, upskilling, and reskilling for city employees.

vs. 27% of other cities

73% LEADERS — Are preparing residents and the broader workforce for AI-related changes in jobs and services.

vs. 14% of other cities

70% LEADERS — Are redesigning roles and workflows before deploying AI.

vs. 12% of other cities

62% LEADERS — Are tracking whether workforce initiatives are improving AI readiness, adoption and capacity across the city.

vs. 4% of other cities

Survey Question: How much progress has your city made to prepare for the future of work in the AI era?

06 Future of work

Leaders build AI talent and new ways of working

Abu Dhabi: Building an AI talent ecosystem

Abu Dhabi's 2025–27 Government Digital Strategy treats talent as core to becoming a fully AI-native government. Its "AI for All" workforce-transition program broadens AI capability across government, and more than 95% of staff have already completed training. Chief Digital and AI Officer roles across government entities provide accountable leadership for AI adoption.

AI is already changing daily work. The city's TAMM 4.0 services platform, for instance, automates routine approvals and compliance checks, freeing employees for higher-value tasks.

The strategy connects government with a wider AI ecosystem—including a specialist AI university, local tech companies, and research organizations—to strengthen AI capability and implementation. Together, these efforts build a pipeline of AI talent while strengthening capability inside government. The workforce transition is backed with targets for full AI integration, more than 200 AI solutions, and 100% sovereign-cloud adoption by 2027.

Seattle: Finding and filling AI skills gaps

Seattle's AI workforce approach begins with a "gap analysis and skills inventory" to identify the capabilities employees need as their roles evolve. The city is working with industry partners on a three-tiered program covering AI Fundamentals, AI Approaches and AI Solutions.

Fundamentals is for everyone, from officials to front-line staff, and a Foundations track on responsible AI, data literacy, and safe tool use is now part of onboarding for all employees. Later phases add deep-dive workshops on data science and integration, followed by a developer-level curriculum built with universities and technology companies.

Training is tied to real tools: in a 500-user Copilot Chat pilot, staff reported saving an average of 2.5 hours a week. An "AI Champs" network holds monthly peer-learning sessions, and an AI for Managers workshop focuses on leaders' accountability for AI-supported work. Seattle believes that AI should "augment staff and service levels, not replace people," a principle built into training programs.

How Kyiv is building the AI skills it needs

Kyiv's workforce strategy starts with an admission: municipal employees already use AI, often through free public tools. "My job is not to ban them from using AI," says CIO Itskovych, "but to provide them a secure instrument." Kyiv is building a sovereign, city-hosted AI model and tailoring it by department, starting with the anti-corruption unit, so each team learns to use AI for its own tasks.

Training is expanding in step. The city already offers AI courses and a learning pipeline for staff, currently voluntary. It is now drafting a workforce upskilling plan and considering mandatory basic AI training for every municipal worker, tailored to their profession. A parallel plan will embed AI in internal systems, such as document exchange.

Itskovych acknowledges that some jobs will become obsolete, and she sees helping people upskill or change professions as part of the city's role. In the future, tasks that can be done with AI will be done with AI first. Staff remain the experts, directing an AI capability that is described as "a very good, well-educated apprentice."

07 Advanced AI

Leaders supercharge results with next-gen AI

People-first, AI leaders are bellwethers of the innovation that will define city government in the future. Their edge lies in putting emerging tools into production, connecting them to municipal workflows, and building the data, governance and workforce foundations to morph into human-centered hubs that sense, learn, and act.

Most Leaders already use gen AI, and within three years it will be a ubiquitous workplace tool. San Antonio's Urbach sees it as "a dominant way to augment existing staff, improve interdepartmental coordination, and reduce the reliance on institutional knowledge."

Agentic AI and cognitive twins turn insights into actions

The biggest leap comes from AI that acts. Agentic and autonomous AI will spread rapidly because they move cities "beyond generating information to completing work," says Coughlin, CIO of Cary.

Paired with digital twins, they close the loop between insight and action. "Digital twins give the city imagination. Agentic AI gives the city action," says Dr. Rami Shaheen of Dubai Quality Group.

Renu Navale, VP and General Manager of the health and cognitive cities division at Intel, believes that physical AI will be the next wave: "The decision doesn't end on a screen. Agents will direct robots, drones, and roadside systems to act on it in the field." The result, says Alicia Plana, executive director at IESE Business School, is "a dynamic, predictive ecosystem with infrastructure that takes preventive maintenance before failures occur."

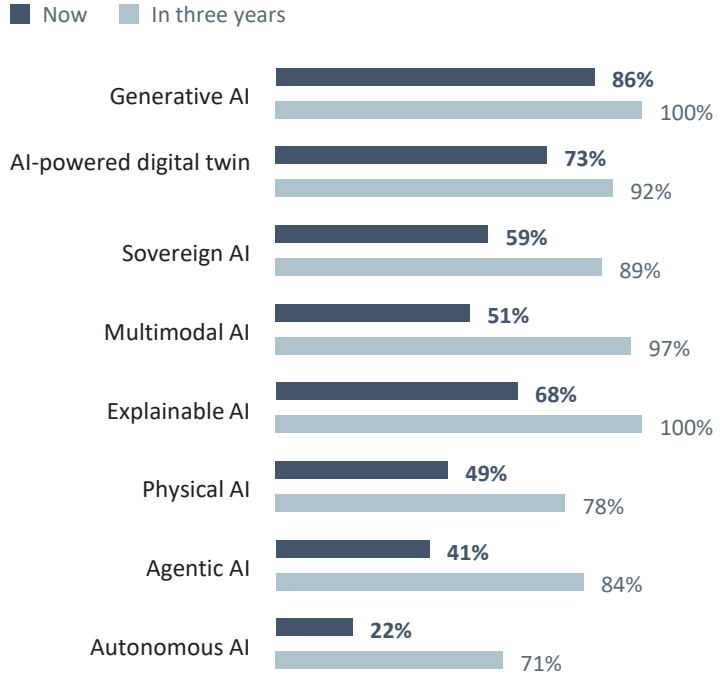
Sovereign and explainable AI build trust

To earn trust, leaders are embracing sovereign and explainable AI. "Sovereignty is an architectural choice," says Navale. "When inference and data stay local, a city keeps sensitive workloads under its own laws and can explain every automated decision to the people it serves." Some governments now mandate that agentic systems operate exclusively within in-country sovereign clouds, according to RIT Dubai's Sanjay Modak.

Multimodal AI puts all data to work

Multimodal AI, which unlocks data in any format, is expected to grow in use across nearly every city. James Meakin, Global Solutions Marketing Director, Dell Technologies, notes that cities can combine "sensor data, video, field inputs, operational systems, and historical records." And serving residents in multiple languages and formats lowers barriers that fall hardest on vulnerable communities, says Urbach of San Antonio.

Next-generation AI technologies actively or widely used by Leaders



Survey Question: How much progress has your city made in harnessing the latest AI technologies and related tools? How much progress does it plan to make in three years?

How cities are applying advanced AI technologies

AI type	City	Use case
Generative AI	**Montreal**	A fully deployed public-web assistant answers resident questions on services, permits, and city information—speeding access and reducing administrative workload.
Multimodal AI	**Buenos Aires**	BAX lets residents use text, voice and images to find information, complete procedures, book appointments, and report city issues.
Sovereign AI	**Aarhus**	Aarhus' systems are built locally on national university super-computers, keeping citizen data private and safe. The city's vision is to make a total digital independent environment where no technology is dependent on third-party sources.
Explainable AI	**Amsterdam**	Amsterdam's public algorithm register identifies algorithms used in public services, explains their purpose and operation, indicates their risk level, and provides a channel for residents to ask questions or give feedback.

AI type	City	Use case
Digital twin	**Rotterdam**	A widely scaled 3D twin on the open urban platform lets zoning officials run automated infrastructure simulations and shorten approval timelines.
Physical AI	**Sydney**	Utility operators use AI-powered predictive maintenance to anticipate infrastructure asset failures and reduce maintenance costs.
Autonomous AI	**Turin**	The AuToMove electric shuttle carries passengers in live campus traffic, giving the city practical experience with passengers, traffic and road conditions before moving toward wider use.
Agentic AI	**Osaka**	A pilot uses autonomous agents to automate HR and administrative workflows associated with employee transportation and travel benefits, including application checks, approval decisions, and reimbursement calculations.

Taking digital twins to the next level

Bologna's human-centered model for trustworthy AI

Bologna is developing one of the world's most ambitious platforms for human-centered AI: a Civic Digital Twin designed to support fair, transparent, and inclusive policy decisions. Unlike traditional digital twins, Bologna's platform combines a 3D representation of the city with data, scientific models, AI, civic knowledge, and citizen input.

Bologna is using it to strengthen the city's ability to understand complexity, test choices, and involve residents in shaping urban change. As Stefania Paolazzi, Innovation Manager at the Comune di Bologna, has explained: "Cities are not machines to be regulated or processes to be optimized, but ecosystems in constant evolution."

Bologna's digital twin is built on the principle that cities are shaped by social relationships, unequal access to resources, varied behaviors, and collective choices. A mobility plan, climate strategy, or redevelopment program can succeed only if it reflects how different groups experience the city.

A digital twin with a mission

Bologna's digital twin is a functioning ecosystem that combines a cloud-native, open-source data and AI platform; a geometric and physical 3D city model; analytical tools and algorithms; data-governance mechanisms; and a civic digital twin layer for policy analysis, citizen engagement, and scenario co-design.

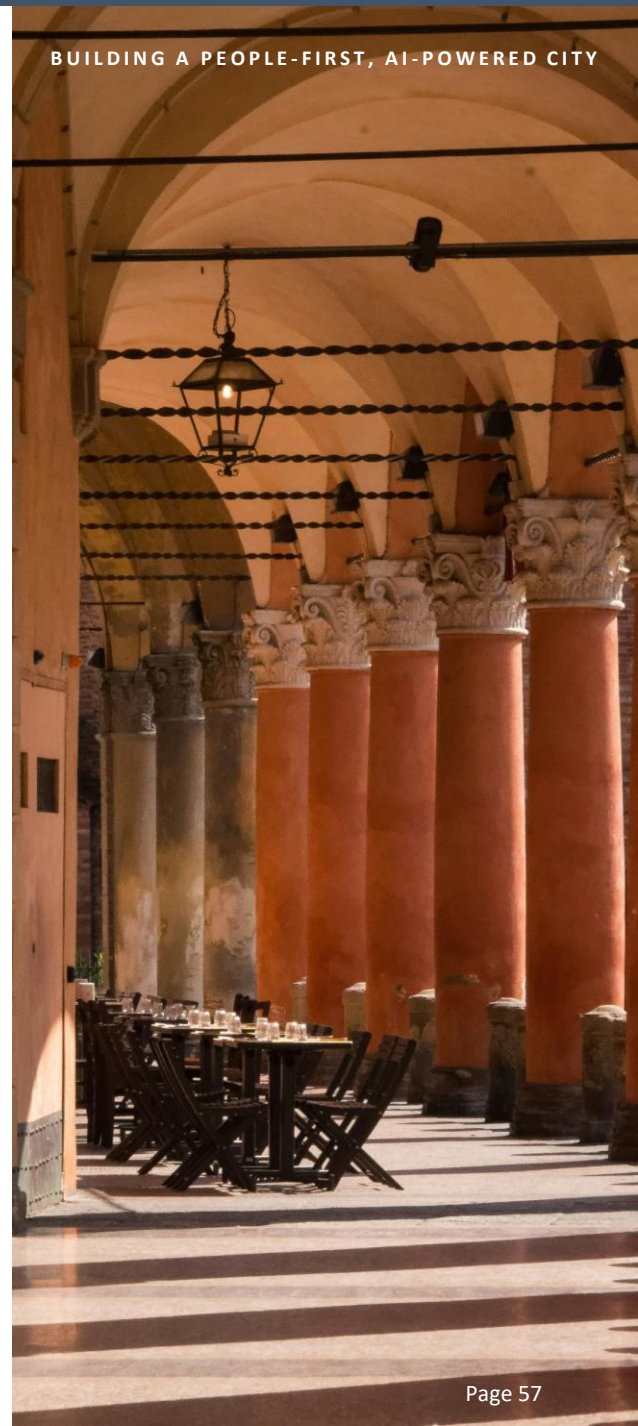
Its purpose is not simply to create a high-resolution virtual copy of Bologna. It is to establish a shared cognitive environment in which officials, researchers, stakeholders, and citizens can interpret evidence and explore future scenarios together.

AI-enabled models can combine datasets, identify patterns, estimate future conditions, and simulate the likely effects of alternative policies. This enables the city to move from a reactive posture—responding after congestion, heat stress, or exclusion, has occurred—to anticipatory governance, where interventions can be tested and debated before implementation.

As Paolazzi puts it, the objective is to model "not only traffic and mobility dynamics, but also people's behaviors and social vulnerabilities." A conventional twin may show traffic flows, buildings, or energy consumption. Bologna's Civic Digital Twin seeks to reveal who benefits, who bears the burden, and where policy may unintentionally reinforce inequality.

Designing AI for fairness

Mobility is Bologna's most advanced AI use case. The city is integrating road-network information, origin-destination flows, traffic sensors, mobility plans, commuting behavior, and measures of social fragility. AI-supported analysis enables officials to model the impact of transport policies on traffic while examining the effects on people by age, gender, income, ability, and other vulnerability-related factors.



Taking digital twins to the next level (continued)

How Bologna ensures equity and trust through collaboration

This approach reinforces human-centricity, since city models often rely on averages that conceal unequal effects. A measure that improves citywide traffic flow, for example, could create new obstacles for residents with disabilities or workers with inflexible schedules.

Bologna's digital twin incorporates fragility indicators, fairness metrics, and effort functions to identify these risks before policies are enacted. Instead of optimizing for a single outcome—such as vehicle speed—policymakers can compare options according to both system performance and equity. This gives decision-makers stronger grounds for explaining, revising, and defending their choices, while giving the public a clearer basis for challenging them.

Climate intelligence that sees people

Bologna is also applying its digital twin to heatwaves and climate adaptation. The platform can analyze environmental conditions, heat distribution, and the potential impacts of solutions and behavioral changes. AI strengthens this capacity by connecting environmental patterns with exposure and social vulnerability.

Extreme heat affects people differently depending on age, health, housing, mobility, and proximity to green space. By combining climatic and social data, Bologna can prioritize interventions most likely to improve safety, health, and quality of life. The digital twin does more than ask where it is hottest. It can identify where heat may cause the greatest harm, which groups are least able to adapt, and which interventions would yield the most equitable benefits.

Trust through participation and control

Bologna is developing the digital twin through a research and development consortium that includes Fondazione Bruno Kessler, the University of Bologna, CINECA, and the Rusconi Ghigi Foundation, alongside broader national and international partnerships.

The project emphasizes open-source, modular, and interoperable components, helping the city avoid dependence on a single supplier and retain control over the technology's evolution.

This technological sovereignty is particularly important for AI-enabled public infrastructure. Proprietary systems can limit a city's ability to understand models, scrutinize outcomes, change vendors, or adapt technology as public priorities evolve. Bologna's open approach supports transparency, reduces lock-in risk, and allows the twin to develop alongside municipal needs.

Residents are expected to contribute through questionnaires, behavioral surveys, ethnographic research, citizen-science initiatives, workshops, and co-design processes. These activities help shape priorities, functionality, accessibility, and future applications.

Bologna is using its Civic Digital Twin as a live environment for responsible AI governance.. The project's ultimate aim, in Paolazzi's words, is to help create "a more just, fair, and sustainable city."



08
Partnerships and funding

Leaders make AI everyone's job

Leaders see AI as a team sport. They convene groups from across the public and private sector, as well as businesses, residents, civic institutions, to pool resources and find common solutions.

Tech firms play a vital role in the urban ecosystem says James Meakin, Global Solutions Marketing Director, Dell Technologies. "Dell Technologies helps local governments build the infrastructure for AI, and our collaboration with NVIDIA adds significant value in helping cities support high-performance AI use cases such as computer vision, simulation and digital twin modeling."

Funding the future

Leaders are creative in how AI is financed and supplied: blending operational and capital budgets with grants, public-private partnerships, shared platforms, in-kind expertise, and models that convert better planning into savings or revenue. Through its PGH Labs program, Pittsburgh, for instance, treats the city as a living laboratory: select firms work with city departments as a 9-to-12-month testbed to prove concepts, providing a relatively low-cost route to try out innovations.

Percentage of Leaders that actively or widely implement elements needed to build a clear partnership and funding path

95% LEADERS

Are building a strong ecosystem of partners, including technology firms, startups, utilities, universities and civic institutions.

vs. 62% of other cities

92% LEADERS

Are collaborating with other cities, agencies or institutions to pool resources, knowledge or procurement power for AI.

vs. 39% of other cities

86% LEADERS

Are leveraging public-private partnerships and innovative commercial models to bring in capital, data and expertise.

vs. 48% of other cities

76% LEADERS

Are creating coalitions and councils of public agencies, businesses and residents to shape AI policies.

vs. 13% of other cities

70% LEADERS

Are securing external funding sources for AI initiatives, such as grants and philanthropic support.

vs. 19% of other cities

> "The biggest mistake city leaders make is treating urban AI as a closed public-sector project, when in reality, it requires tight coordination between public planners and private capital."

Dr Henning Stein
Fellow, Cambridge University Judge Business School

Survey Question: How much progress has your city made in building a clear partnership and funding path?

08
Partnerships and funding

How Leaders build a vibrant AI ecosystem

Today, Leaders finance AI primarily through existing IT and departmental operating budgets, complemented by public-private partnerships and federal, state and regional grants. This blended model funds near-term delivery and brings in the capital, expertise, and risk-sharing needed to test and scale new applications.

In the future, Leaders expect the greatest growth in dedicated AI and technology capital budgets and in reinvesting efficiency savings, shifting from individual projects to durable AI capabilities. They also anticipate greater use of innovation-oriented procurement and regional cost-sharing.

Go your own way

Cities are taking different routes to finance AI.

In **Austin,** Capital Metro uses Federal Transit Administration innovation funding to test automated bus-yard operations—including vehicle movement, charging, and maintenance workflows—and the viability of broader yard automation.

Coral Gables pairs city-led smart-city investment with federally-funded research partnerships. Its AIDA digital assistant was developed through the National Science Foundation's STIR Labs initiative, and its AutonomIA transportation and energy-optimization project is funded by the Department of Energy's ARPA-E program.

In contrast, **Alatau City** is exploring public-private partnerships for AI and smart-city projects, including availability-payment and revenue-sharing models. The aim is to reduce the need for direct public funding of AI and smart-city infrastructure and make delivery more cost-effective and practical.

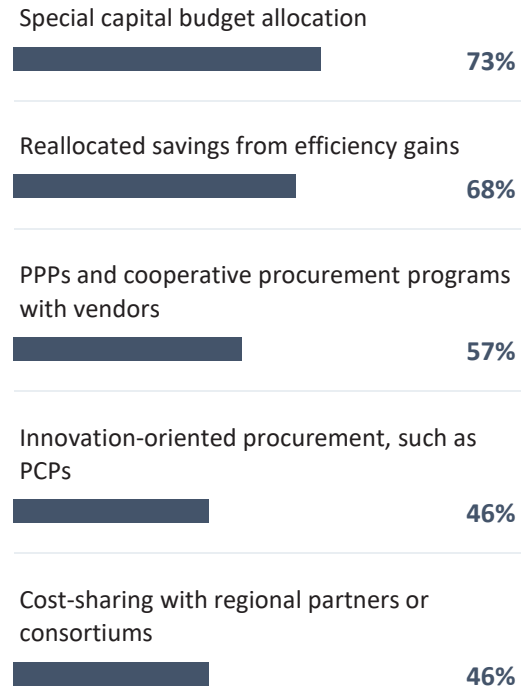
Top five AI funding methods

Cited by % of Leaders

1	100%	Existing IT/technology or departmental operating budgets
2	92%	PPPs and cooperative procurement programs with vendors
3	89%	Federal or state/regional grants and funding programs
4	46%	Reallocated savings from efficiency gains
5	46%	Special capital budget allocation for AI/technology

AI funding methods that will grow the most in three years

Cited by % of Leaders



Survey Question: Please identify the main ways that you are funding your city's AI initiatives? Which funding methods will grow the most in three years?

SECTION 6

How cities put AI to work

Best practices by urban domain



Cities are leveraging AI for urban reinvention

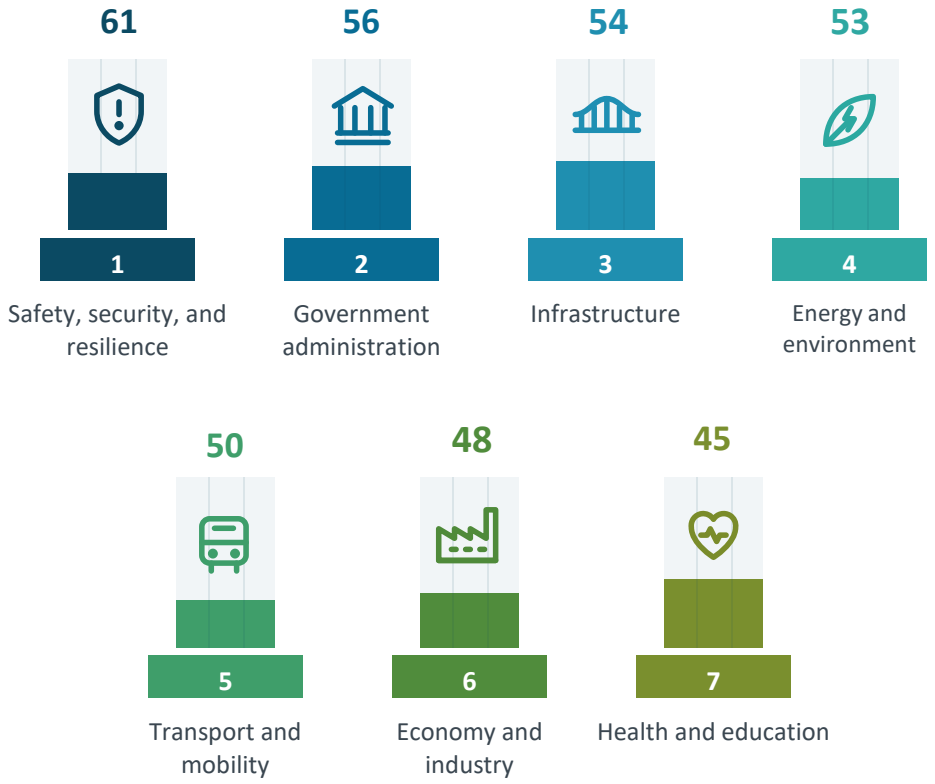
Cities have made the most progress deploying AI in domains that are central to day-to-day municipal management—particularly safety and security, government administration, infrastructure, and utilities.

Cities are slightly less mature in domains that often require more complex cross-sector coordination, specialized data, or equity-centered design, such as health and living and economic development.

Urban managers are leveraging AI to do more than simply optimize individual domains, they use AI to connect them, according to James of CTIA. “By looking beyond optimizing individual municipal functions, incorporating AI can more efficiently connect systems of systems. AI can help unify data across transportation, utilities, public safety, and other critical infrastructure, enabling greater collaboration, faster decision-making, predictive maintenance, and more coordinated responses to community needs.”

In so doing, city infrastructure shifts from being reactive, to what Alicia Plana, executive director at IESE Business School, describes as "adapting fluidly to human behavior, data flows, and environmental shifts in real time."

AI domain usage scores



> “AI can help cities improve everyday life—from keeping traffic moving and maintaining infrastructure to making public services easier to access. AI helps city teams anticipate citizen needs and respond faster.”
>
> **Jumbi Edulbehram**
> Director, Global Public Sector, NVIDIA

SCORE KEY

25 = exploring, testing, and developing plans
50 = plans in place and starting to implement them
75 = actively implementing in several areas
100 = widely scaling plans across domain

Survey Question: How much progress has your city made in deploying AI solutions in the following areas?



1. Safety, security, and resilience

DOMAIN AI SCORE **61**

Of all urban domains, cities have made the greatest AI progress in safety, security, and resilience. Eric Keane, CIO of Memphis explains: “Public-safety technology has led the way for cities, but the real value comes when cities link cameras, sensors, drones, and other tools into a single environment."

Most cities now use AI to strengthen cyber-security and digital safety, prepare for disasters, and improve surveillance and situational awareness. The use of AI models and digital twins has helped cities take risk analysis to the next level. As Denys Nazarenko, CIO Advisor, Kyiv City Council observes, “AI allows cities to model worst-case scenarios much faster—and be more prepared for what comes next.”

AI also helps many cities respond faster to emergency calls, conduct crime analysis, and upgrade community safety and prevention programs. Thanks to their AI efforts, 90% of Leaders have enjoyed a moderate or significant improvement in risk, security, and compliance.

% of cities actively or widely using AI		Urban solutions
73%	Cybersecurity and digital safety	**San Antonio’s** regional security operations center pools organizational and cyber capabilities to strengthen resilience of municipal systems.
58%	Disaster risk reduction, early warning, and risk mapping	**Kyiv’s** sensor-fed GIS situational center models disaster scenarios—such as dam failure and flooding—to estimate affected residents and strengthen preparedness.
56%	Surveillance and situational awareness	**Astana** is deploying a US$190M AI-powered public-safety platform combining surveillance analytics, integrated urban data for real-time management, and a future digital twin.
50%	Emergency call handling and response	**Seoul** is piloting an AI callbot to triage 119 emergency calls, helping operators assess and prioritize incidents faster (*see case study on next page*).
49%	Crime analysis and policing	**Cordoba's** public safety department uses a scaled AI video analytics platform that helps police commanders and dispatchers monitor live camera feeds, resulting in smarter patrol deployment, faster emergency responses, fewer false alarms, and safer neighborhoods.
47%	Community safety and prevention programs	**Memphis** uses AI and machine learning to analyze road and property imagery, helping the city identify potholes more quickly, and detect abandoned properties and patterns of urban blight.

Survey Question: How much progress has your city made in using the following AI solutions to enhance safety, security, and resilience?

Best practices in safety and resilience

TOP 10 CITIES USING AI IN DOMAIN	96 Amsterdam	96 Singapore	92 Boston	92 Istanbul	92 London	92 Madrid	92 Melbourne	92 Taipei	88 San Jose	88 Seoul	88 Toronto

% of top 10 cities deploying AI for:

Disaster risk reduction, early warning, and risk mapping	100%
Cybersecurity and digital safety	100%
Community safety and prevention programs	100%
Emergency call handling and response	100%
Surveillance and situational awareness	100%
Crime analysis and policing	91%

Seoul: AI-enabled emergency triage

Seoul's 2025 Artificial Intelligence Administration Plan provides a strong example of applying AI to public safety while maintaining a citywide implementation framework. The three-year plan allocates ₩206.4 billion across 38 AI projects—approximately US$155 million over three years.

One pilot application is an AI chatbot for 119 emergency calls. It gathers incident details by voice, prioritizes urgent reports for human operators, and analyzes clusters of similar calls to support early detection of large-scale emergencies. Seoul pairs this pilot with a broader citywide AI program that covers public services, workforce use and governance.

Key takeaway

The lesson is to focus AI on a clearly defined, high-value safety workflow while building the governance, staff capacity, and operational infrastructure needed to scale responsibly.

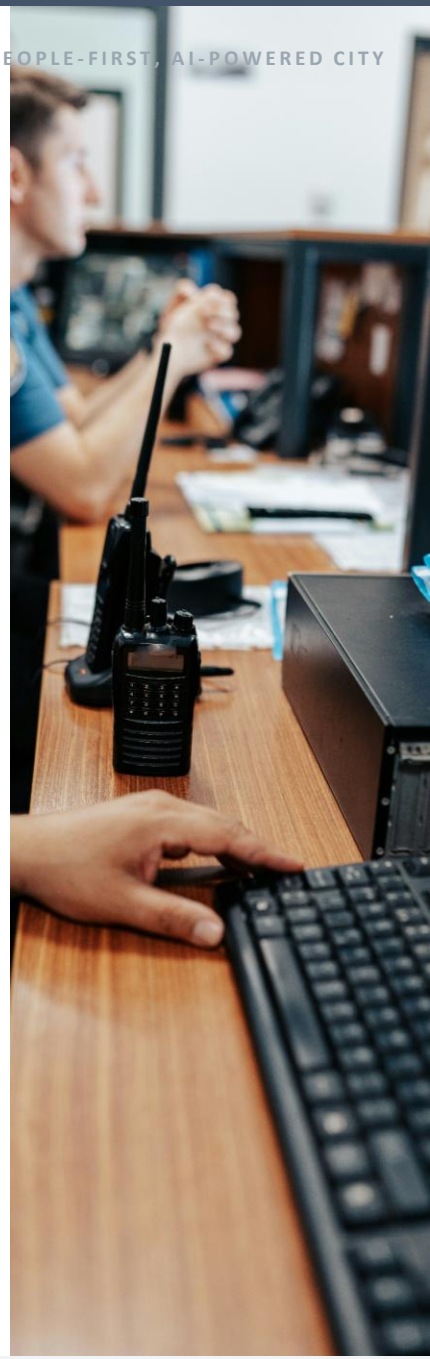
Madrid: Improving safety through AI

One of Madrid's top goals is to create a safe and resilient city supported by AI-enabled mobility, cyber-security, police video analytics, and integrated emergency management.

Madrid uses SIDERA Analytics, an AI- and computer-vision-enabled mobility platform that integrates data from sensors, mobile telephony, connected vehicles, public transport, and bicycle systems. The platform supports evidence-based infrastructure planning, road-safety policy decisions, and mobility management.

Using predictive and real-time AI

SIDERA ITS & Tunnels uses tens of thousands of sensors and cameras to monitor tunnels in real time. Police use AI video surveillance for real-time and forensic searches for incidents, perimeters and people with specified characteristics. GEMMA gives firefighters and SAMUR, the municipal emergency medical service, real-time situational awareness and resource management.



Survey Question: How much progress has your city made in using the following AI solutions to enhance safety, security, and resilience?



2. Government administration

DOMAIN AI SCORE **56**

Cities use AI to modernize the whole government operating model—not just the digital front door. Digital assistants are making it easier for residents to find information, navigate services, and complete routine requests. Behind the scenes, AI is automating document handling, ticketing, and other repetitive tasks, freeing staff to focus on cases that require judgement and human interaction.

The greater prize is a more connected city office. By bringing together knowledge, workflows, and data that have traditionally sat in separate departments, AI can route work to the right team, improve IT operations and give planners and executives a clearer view of demand, assets, and risks. This supports better land-use decisions, more responsive services, and more informed policy, budgets and investment choices.

As Cary's Coughlin puts it: "AI gives our employees something incredibly valuable: time. By reducing repetitive administrative work and surfacing better insights, it allows public servants to focus on the work that matters most—solving complex problems, collaborating across departments, and serving people."

% of cities actively or widely using AI		Urban solutions
69%	Digital citizen services and engagement	**Los Angeles's** "MyLA311" platform includes Chip, a multilingual AI chatbot that answers resident questions 24/7. MyLA311 processed more than 1.3 million service requests in 2019.
53%	Administrative processes and back-office operations	**Kawasaki's** municipal employees use AI for summarizing lengthy documents, drafting public-policy materials, and cleaning data. By harnessing AI, the city reports saving staff hours of desk work.
51%	Urban and land-use planning	**Honolulu's** AI plan-review tool, CivCheck, flags errors before residential permit applications reach human reviewers. It has cut review cycles 58%, corrections 67%, and decision times 55%, saving applicants an average of 40.5 days.
50%	IT management	**Yantai's** "1+3+1" architecture centralizes computing power, model training, and shared AI services for government departments, breaking down departmental barriers.
37%	Strategic planning, policy and budgeting	**Istanbul's** banks and public-finance departments use AI for auditing, expense recording, financial statements and investment forecasting, with the aim of improving real-time financial activity and reducing losses and unnecessary expense.
35%	Cross-department coordination and operating models	**Reykjavík** is introducing AI to improve data sharing and coordination across over 150-plus citizen-facing services, 50-plus internal services and more than 400 workplaces.

Survey Question: How much progress has your city made in using the following AI solutions to improve government management, administration, and planning?

Best practices in government administration

TOP 10 CITIES USING AI IN DOMAIN	97 Singapore	94 Dubai	94 Amsterdam	92 Seoul	89 Barcelona	89 Seattle	86 Melbourne	83 Ottawa	81 Madrid	81 Tampere

Top 10 cities deploying AI for:

Digital citizen services and engagement	100%
Admin processes and back-office operations	100%
IT management	100%
Cross-department coordination and operating models	100%
Urban and land-use planning	100%
Internal governance, risk, and compliance	100%

Raleigh: Freeing up staff time with AI

Raleigh is embracing AI to improve government efficiency. The city is moving beyond gen-AI chatbots to AI agents that can actively resolve IT service requests. Its gen-AI chatbot, Raleigh, helps employees find information across departments, including HR, facilities, and IT. As CIO Wittenburg explains, the chatbot can “look across the organization and across our data and knowledge bases” to connect services and provide answers.

The city is now pairing that capability with Ral-E, an AI agent that works IT help-desk tickets, communicates with employees through Teams or email, and resolves defined requests. The system selects the appropriate workflow and queue “about 98% of the time,” helping route work to the right team more efficiently.

It is also deploying Alli, a separate agent that autonomously handles simple help-desk tasks like password resets. Raleigh is deploying Allie gradually, treating the agent like a new employee rather than giving it unrestricted access from the outset.

“You don’t just hand it the keys to the kingdom,” Wittenburg says. After supervised testing, Alli has begun operating autonomously on a limited range of tickets, initially handling five to 10 each week.

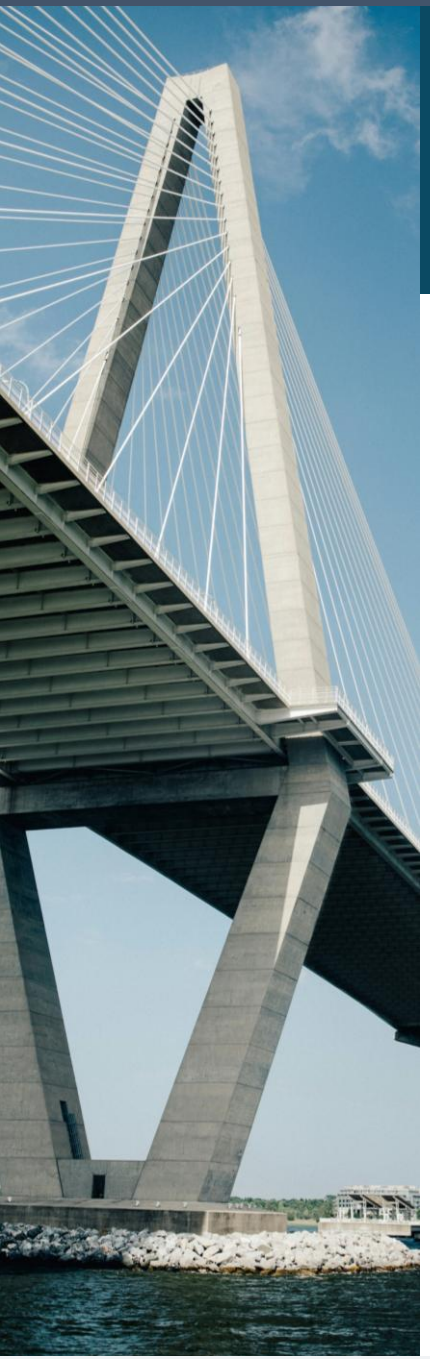
The goal is to shift staff from routine work, such as password resets and printer requests, to complex issues that require human judgment. “Automate tasks and then keep critical thinking to the humans,” Wittenburg says.

AI is changing other IT admin work. When a contracts specialist retired, Wittenburg held the job open for six months to automate contract review. Gen AI could compare vendor terms against city templates and state requirements and flag unfavorable or missing terms. That work used to take days—time that can be freed up to manage security or AI development. "I'm not losing the position. It's just different," he says.

Wittenburg’s next step is to help employees outside of AI to learn how to use AI and build agents that support their own workflows.



Survey Question: How much progress has your city made in using the following AI solutions to improve government management, administration, and planning?



3. Physical and digital infrastructure

DOMAIN AI SCORE **54**

Dr. Rami Shaheen, Secretary General of the AI Subgroup for the Dubai Quality Group, sees AI as a capability that gives cities intelligence and reflexes. Those reflexes, amassed through platforms, sensors, and asset data, allow cities to move beyond periodic inspections and fragmented asset registers, identifying maintenance needs earlier, directing field teams more effectively, and making more resilient investment decisions.

For Cary's Coughlin, "the real breakthrough happens when these technologies operate together." Edge AI and IoT networks can detect issues near where they occur; AI and digital twins can combine those live signals with asset, planning, and service data; AI and cybersecurity can protect traffic systems and utilities from attack; and integrated operations centers can coordinate action across departments. The value, as Renu Navale, VP and GM Health and Cities at Intel, marketing strategist at Intel, affirms, lies not solely in adding visibility, but in turning that visibility into real-time action.

This creates a new infrastructure operating model: one that predicts and preempts risk, while extending the life of public assets.

% of cities actively or widely using AI		Urban solutions
63%	Digital connectivity and platforms	**Dubai's** Salama platform uses AI and authenticated user data to personalize residency services, enabling users to renew or cancel permits, make payments, and receive instant visa-related support without forms or service-center visits.
54%	Asset inventory and predictive maintenance	**Victoria** uses AI to analyze video captured by cameras on public-works vehicles, flagging maintenance issues and feeding prioritized work orders into managers' dashboards.
50%	Infrastructure resilience and adaptation	**Gold Coast** uses smart-water telemetry and predictive pipe maintenance to assess failure probabilities and pinpoint likely water leaks. The city has reported a 60–80% return on investment.
39%	Edge AI and IoT networks	**Medina** is scaling an AI-powered crowd-management and smart-mobility system that uses cameras and street sensors to count crowds, map walking routes, and detect congestion in real time.
35%	Integrated operations centers and digital twins	**Düsseldorf's** digital twin simulates weather, traffic and construction scenarios. Urban planners and transit operators use it to test scenarios and help prevent traffic delays.
10%	Commercial corridor and loading zone digitization	**Toronto** applies AI to traffic-signals and curb management, help transportation teams reduce congestion, improve traffic flow, and enhance mobility across the city.

Survey Question: How much progress has your city made in using AI to improve its physical and digital infrastructure?

Best practices in infrastructure management

TOP 10 CITIES USING AI IN DOMAIN	92 Dubai	92 Rotterdam	92 Seoul	92 Singapore	88 Barcelona	88 London	83 Amsterdam	83 Madrid	83 Sydney	83 Ningbo

Top 10 cities deploying AI for:

Asset inventory and predictive maintenance	100%
Operations centers and digital twins	100%
Edge AI and IoT networks	100%
Digital connectivity and platforms	100%
Infrastructure resilience and adaptation	100%
Commercial corridor, loading zone digitization	50%

Rotterdam: Building a city-wide digital twin as public infrastructure

Since 2023, Rotterdam has been building the Open Urban Platform, a digital twin that brings together current information on homes, amenities, trees, and other city assets. The city, businesses, schools, and residents can share data through the platform.

A platform built for public accountability

The platform is designed not only to visualize and share real-time city data, but also to support AI-enabled applications, predictive analytics, and scenario simulations. An independent Governance Board brings together representation from the municipality, the platform operator, business, academia and residents.

It oversees the responsible, safe and fair exchange and use of data, including compliance with privacy, transparency and ethical standards. A “market master,” employed by the operator, oversees compliance with the platform’s agreements, rules, and operating framework, working alongside the Governance Board.

The public-private governance model is designed to ensure that privacy, transparency, fair competition, and other public values are protected as the platform is commercially operated.

A shared language for data

Rotterdam’s model is designed around interoperability: flexible components are connected through open interfaces so organizations can exchange and reuse data without relying on a single proprietary system.

The platform draws on FAIR principles—Findable, Accessible, Interoperable and Reusable—to support responsible data sharing and reuse. The platform also supports an application ecosystem and data marketplace, allowing organizations to connect services, share data, and build applications on a common digital-twin foundation.



4. Energy, utilities, and the environment

DOMAIN AI SCORE **53**



Cities use AI to turn environmental and energy data into quicker, more targeted action. Combining air-quality, weather, water, energy, waste, and satellite data helps them spot emerging risks before they become costly failures or public-health threats.

Cities use AI to anticipate heat, flooding, leaks, pollution peaks, infrastructure deterioration, and shifting energy demand, helping teams prioritize maintenance and target resources and investment.

The goal is to move from passive tracking to proactive management: improving building and grid performance, detecting waste-water discharges, optimizing collection routes, guiding cooling and greening investments, and modeling climate risks.

As ASU's Johnston notes, "AI can help cities improve energy management, water systems, waste reduction, transportation planning, and infrastructure maintenance—but sustainability must be an explicit design requirement, not a hoped-for byproduct."

% of cities actively or widely using AI		Urban solutions
57%	Environmental and climate monitoring	**Darwin** uses spatial software that combines satellite data and drone imagery to simulate urban heat and map tree growth. This helps support climate-resilience planning, with the city reporting observable temperature reductions as its work expands.
50%	Water, wastewater, and other utilities	**Xiamen** has identified an AI application scenario for intelligent sewage-outlet control: using AI to identify abnormal outlets, remotely trigger automatic sampling and monitoring, and transmit data to support off-site supervision and more precise control.
49%	Energy systems, smart grids, energy management	**Konya's** KOSKİ utility uses an AI-powered routing system that combines crew GPS locations, work priorities and schedules to dispatch the nearest qualified team during emergencies. The system has raised productivity and cut carbon emissions by 15%.
43%	Climate adaptation and resilience planning	**Taipei** uses AI-supported data analysis to understand extreme-weather and infrastructure risks earlier, helping city teams prepare sooner and prioritize resilience investments.
36%	Waste and circular-economy services	**Nantes.** A smart street-cleaner tracker uses cameras on city vehicles to spot litter or full bins. AI prioritizes the work that needs immediate attention and tells workers which streets need cleaning.
9%	Customer and community energy services	**Herne.** The city-owned utility Stadtwerke Herne uses "Erna," a gen-AI chatbot, to answer customer questions, handling meter readings and installment changes that help households manage energy bills.

Survey Question: How much progress has your city made in using AI solutions for energy, utilities, and environmental management?

Best practices in energy, utilities, and environment

TOP 10 CITIES USING AI IN DOMAIN	92	88	88	83	83	79	79	79	79	79	79	79
	Singapore	Melbourne	Seoul	Munich	Rotterdam	Seattle	Amsterdam	Barcelona	Istanbul	Stockholm	Madrid	New York City

Top 10 cities deploying AI for:

Energy systems, smart grids, and building energy management	100%
Water, wastewater, and other utilities	100%
Environmental and climate monitoring	100%
Waste and circular-economy services	100%
Climate resilience planning	100%
Customer and community energy services	75%

Stockholm: Building sustainability into the AI operating model

Stockholm shows how a city can embed data, AI and IoT within a wider sustainability operating model. Its Environment Program 2030 sets a direction for an equitable transition to a low-carbon city with reduced consumption-based emissions, circular resource use, resilience, and improved air quality. The city aims to be climate-positive by 2030, fossil-free by 2040 and fossil-free in its own operations by 2030; it also aims to halve consumption-based emissions by 2030 compared with 2019.

From data to better decisions

Stockholm's IoT program connects assets in the urban environment, buildings and municipal premises to generate real-time data flows.

The city identifies sensor-based control, AI, and IoT as tools for improving energy efficiency in buildings and supporting more efficient traffic management. Stockholm is also scaling a 3D city model to support more informed urban decision-making and uses an intelligent adaptive traffic-management system with cameras and traffic lights in major areas. Meanwhile, municipal managers and frontline staff are trained in data privacy, ethics, and responsible AI use.

The leadership lesson

Stockholm's progress shows that AI-enabled sustainability requires more than advanced technology. It requires a long-term climate strategy, connected data infrastructure, responsible governance, workforce training, and extensive collaboration with ecosystem partners.



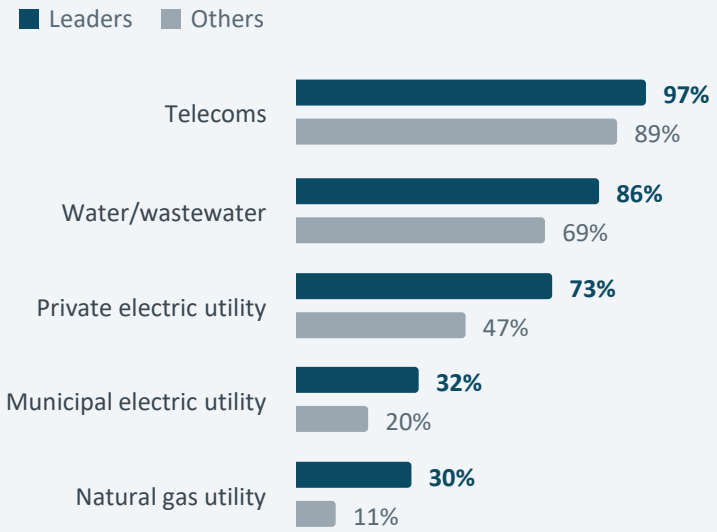
Survey Question: How much progress has your city made in using AI solutions for energy, utilities, and environmental management?

Utility partnerships help Leaders drive results

Leaders build robust utility ecosystems

Because of the importance of connectivity to urban AI solutions, nearly every Leader partners with local telecom providers. Leaders also work with a broad range of other utilities, from water and natural gas providers to private electric utilities. By teaming up with these utilities, Leaders can tap into data and infrastructure to support their citywide AI initiatives.

Utility partners on AI



Sharing data and assets to improve AI outcomes for citizens

Leaders and utilities actively share four types of assets: planning and asset data, operational data, transparency and performance data, and the governance and infrastructure that underpin collaboration. Together, these help partners plan growth jointly, respond faster to emergencies, run networks more efficiently, and stay accountable, delivering reliable, affordable services for citizens.

Data and asset categories	What's shared	How it helps citizens
Planning and asset data	Infrastructure assets and network data (97%); planning and capacity forecasts (89%); spatial and emergency management data (87%)	Coordinated investment, fewer repeat roadworks, faster emergency response
Operational data	Real-time operational data (81%); consumption and metering data (59%)	Quicker fault detection, better demand management, lower costs
Performance data	Regulatory and performance metrics (73%); public datasets and dashboards (65%)	Greater accountability and visibility of service quality
Collaboration foundations	Governance and security frameworks (84%); Shared physical and digital infrastructure (76%)	Safe, trusted data exchange and less duplicated infrastructure

Survey Question: Which types of utility providers does your city work with on AI initiatives? What data and infrastructure does your city share with utility partners for AI?



5. Transport and mobility

DOMAIN AI SCORE **50**

Cities are using AI to make urban movement safer, smoother and more responsive. The most mature applications are in network-wide traffic management, where cameras, sensors, and real-time data help cities understand congestion, detect incidents, and adjust operations across connected corridors.

Holistic mobility

The next frontier is to move beyond monitoring individual roads or vehicles. AI can combine traffic, transit, parking, curbside, and active-mobility data to help cities manage the transport system as a whole—improving public-transport reliability, managing competing uses at the curb, and making walking and cycling safer. Digital twins and AI-enabled analytics also allow planners to test changes before committing to costly physical infrastructure.

Adaptive traffic management

As Wittenburg, CIO of Raleigh, explains: "The goal is not simply better visibility, but progressively more adaptive networks in which signals and services respond to changing conditions."

% of cities actively or widely using AI		Urban solutions
70%	Network-wide traffic management	**Raleigh** is piloting traffic video analytics that count vehicles and track turning movements at intersections. The city reports 95% accuracy, giving its engineers faster data on traffic flow for safety and operational decisions.
64%	Public transport	**New York's** MTA uses AI predictive maintenance for its bus fleet, helping maintenance teams fix faults before they disrupt service. The agency reports a 24% reduction in material costs and a boost in maintenance productivity.
49%	Integrated, interoperable mobility platforms and digital twins	**Dublin** is piloting an AI digital twin that combines live data from AI traffic sensors with open data on traffic, weather, and water levels in a single real-time 3D model. The platform showed that rain barely affects cycling numbers, strengthening the case for new bike routes.
48%	Parking and curb management	**Utrecht** uses AI algorithms for parking, checking number plates for valid parking rights, automated permit decisions and parking-pressure monitoring that targets enforcement.
46%	Road safety	**Bellevue** has piloted AI-enabled LiDAR, edge computing and deep-learning analytics at intersections to detect pedestrians in real time. When additional crossing time is needed, the system can extend walk signals and hold conflicting traffic movements.

Survey Question: How much progress has your city made in using AI to improve transportation, traffic, and mobility?

Best practices in transport and mobility

TOP 10 CITIES USING AI IN DOMAIN	90 Singapore	88 Seoul	85 Dubai	85 Munich	83 Barcelona	83 Istanbul	83 Tel Aviv	80 Melbourne	80 Seattle	80 Helsinki

Top 10 cities deploying AI for:

Public transport	100%
Active and shared mobility	100%
Integrated mobility platforms and digital twins	100%
Network-wide traffic management	90%
Mobility hubs and multimodal operations	90%
Road safety	90%
Parking and curb management	90%
Urban freight, commercial delivery, and last-mile logistics	90%

Austin: Making transit responsive with AI

Austin's CapMetro is applying AI to one of public transit's toughest challenges: delivering reliable, flexible mobility where fixed-route buses are not viable. Its Pickup service serves lower-density areas through app-based, zone-based rides, while the agency is rolling out AI-driven dispatch to optimize vehicles and operational resources.

CapMetro is rolling out Spare, an AI-driven dynamic-dispatch platform, across demand-response and paratransit operations. The system accounts for operational considerations and available resources as it assigns trips. Rather than relying on static schedules, it continually matches requests with vehicle availability, helping CapMetro respond to demand in real time and use its operators more effectively.

CapMetro's microtransit Pickup program, along with the Metro Access supported by Spare, offers app-based, on-demand shared rides across about 12 zones, about five to seven miles each. "It's meeting a need for the community where there's no other viable option," says Sharmila Mukherjee, EVP, Chief Strategic Planning & Development Officer, CapMetro.

Austin CapMetro uses AI to respond to rising demand and staffing constraints while maintaining lower fares and safety-certified service. It is also considering combining its microtransit and paratransit services. Early experimentation results are promising. Pickup is achieving on-time performance of roughly 90%, while customer satisfaction exceeds 80%. The initiative points toward a more coordinated model of on-demand mobility to complement fixed-route transit.

Automating the depot

CapMetro has also conducted a 1.5-year, FTA-funded automated-yard pilot at its North Operations and Demand Response Center. The pilot explored autonomous depot navigation, pantograph charging, and maintenance functions. CapMetro sees this kind of automation as a way to supplement maintenance workers and address operational-resource shortages as its electric fleet grows.



AI is reshaping how goods move through cities

AI is widening the scope of urban logistics, from helping operators plan individual deliveries to helping cities understand and coordinate how goods move through streets, curbs, sidewalks, and airspace. Applications range from demand forecasting and route optimization to computer-vision curb management, delivery robots and drones, and intelligent port logistics. Dammam is using AI to optimize commercial trucking and ease heavy-vehicle congestion, while Pittsburgh and Santa Monica are pairing smart loading zones with new pricing and low-emission delivery rules.

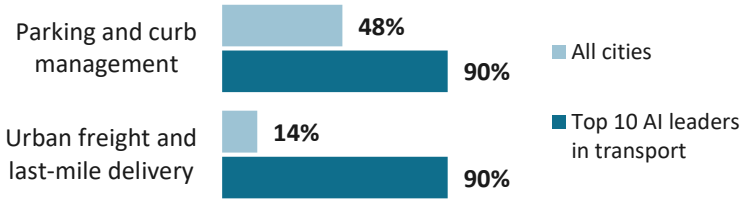
But the foundations must come first

Use of AI for freight lags well behind other mobility uses. The barriers are institutional as much as technological: fragmented real-time data sharing, curb infrastructure, rules that trail new technology, and public concerns about sidewalk robots, accessibility, and jobs. Cities that build shared data visibility and treat the curb as a policy system will be best placed to turn adoption into public value.

Where cities stand

52% of cities plan to use AI to address logistics, delivery, and urban freight challenges over the next three years

Share of cities actively or widely using AI for:



Five shifts in urban logistics

1. From static routing → **responsive, AI-optimized logistics**
2. From parking administration → **intelligent curb management**
3. From digital maps → **digital twins of streets and curbs**
4. From human-only delivery → **mixed fleets with robots and drones**
5. From isolated applications → **connected port and freight systems**

CASE STUDY

FedEx

Optimizing delivery routes through prescriptive AI

In 2025, FedEx acquired RouteSmart Technologies, a global leader in route optimization. By integrating RouteSmart's AI with its own extensive physical and data networks, FedEx is enhancing its FedEx Route Optimization (FRO) system.

Grounded in operations research and prescriptive AI, the system analyzes approximately 18 million daily shipments, operational constraints, and historical trends to automatically generate the most efficient delivery routes.

By reducing manual planning with intelligent, data-driven decisions, FRO helps reduce total mileage and fuel consumption and optimizes delivery times—delivering a win for both operational efficiency and environmental sustainability.

Survey Question: Which of the following urban challenges do you plan to address with AI solutions over the next three years? How much progress has your city made in using AI to improve transportation, traffic, and mobility?



5a. Accessible mobility and EV

SUBDOMAIN AI SCORE **36**

AI can make mobility more inclusive by identifying barriers, expanding travel options and planning services around how people move. It can detect damaged sidewalks and inaccessible crossings, improve real-time wayfinding, extend first- and last-mile connections, and help residents reach work, healthcare, education, and other essential destinations.

Closing the gaps in fixed routes

The greatest opportunity is to address journeys conventional public transport does not serve well—especially for older adults, people with disabilities, and residents of low-density or underserved neighborhoods. AI can identify unmet demand, support accessible on-demand services and guide investment in barrier-free streets, transit, and EV charging around real travel patterns. The goal is more independent, reliable and equitable access to the city.

One example is CapMetro's Pickup service, which provides app-based, on-demand trips beyond fixed-route transit.

% of cities actively or widely using AI		Urban solutions
37%	Accessible public transport operations	**Detroit's** Accessibili-D offered free autonomous shuttle rides to residents aged 62+ and people with disabilities. Over 12 months, it delivered 4,000+ rides, with average wait times of about 10 minutes and a 5-star rating. It is now a long-term service.
27%	Barrier-free infrastructure planning	**Omaha** is using geospatial AI to map curb ramps across Douglas County, giving inspectors a more complete inventory for assessing accessibility and prioritizing barrier-removal work.
25%	Equity and access monitoring	**London's** TfL tracks the additional travel time faced by passengers requiring step-free routes and monitors differences in transport experience across groups to target improvements.
17%	Public charging planning and operations	**Kansas City** partnered with researchers to use AI-based demand forecasts and equity analysis to select sites for 23 public streetlight EV chargers. The pilot monitors charger use to guide expansion.
15%	Inclusive multimodal journey planning	**New York City's** MTA uses NaviLens to deliver real-time, multilingual audio and visual wayfinding across multiple subway stations and bus corridors, supporting more independent travel for blind, low-vision, and other passengers.
13%	Accessible curbside services	**Osaka** uses AI-enabled on-demand transport to serve areas where fixed-route buses are difficult to sustain, extending mobility access for residents who live beyond conventional public-transport areas.

Survey Question: How much progress has your city made in using AI to improve EV charging and accessible mobility?

Best practices in accessible mobility and EV

TOP 10 CITIES USING AI IN DOMAIN	88 Singapore	83 Melbourne	80 Seoul	80 Seattle	75 Amsterdam	75 Stockholm	73 Dubai	68 Rotterdam	68 Zhuhai	65 Munich	65 Sejong

Top 10 cities deploying AI for:

Curbside and corridor charging management	100%
Vehicle-to-building, to-home, to-grid integration	91%
Charging equity and access	91%
Accessible public transport operations	91%
Inclusive multimodal journey planning	73%
Fleet charging orchestration	64%

Hamburg: Autonomous, electric, and accessible by design

Hamburg aims to put public transport within five minutes of every resident by 2030, which could require up to 10,000 extra vehicles. With conventional buses, that would also mean thousands of new drivers at a time of shortage, so the city is turning to AI-driven autonomous shuttles.

Shared, self-driving rides

The ALIKE project, led by operator HOCHBAHN with MOIA, HOLON, Volkswagen and €26 million in federal funding, runs self-driving, fully electric vehicles that use cameras, radar and lidar to navigate city streets.

Riders book through the MOIA and hvv switch apps, and ride-pooling software groups passengers heading the same way, with pick-ups at virtual stops. Passenger pilots for pre-registered residents began in July 2026 in parts of Winterhude, Barmbek, and Wandsbek, with safety staff on board.

Accessible from the start

HOLON's shuttles carry up to 15 passengers and include an automatic ramp, a secured wheelchair space, and audio and visual assistance. A purpose-built depot in Barmbek provides charging and maintenance for the electric fleet. Researchers are also studying public acceptance, traffic effects, CO_2 savings, and accessibility, with the aim of scaling the model citywide and to rural areas.





6. Economy, business, and industry

DOMAIN AI SCORE **48**

As AI transforms business, cities are putting AI innovation at the heart of their long-term economic development plans. About two thirds are actively building strong AI ecosystems of tech companies, startups, and academic institutions to provide the new ideas and resources to power future growth.

Building an AI-ready talent pool

Workforce and skills development is another key priority, reflecting a clear understanding that long-term success depends on preparing people for AI-enabled jobs. "We're moving into a whole new industrial era, and we have to be prepared for it," says Steve Wray, Director of Economic Development for Pittsburgh. "And we need people in the government that know AI, as well as a local population that has the skills that AI businesses are going to demand in the future."

Helping business thrive

To drive a sustained economic impact, cities are revitalizing key local industries with AI, creating AI-enabled data sharing programs with the private sector, and using AI to remove barriers and improve logistics for doing business.

% of cities actively or widely using AI		Urban solutions
66%	Innovation, startups, and AI ecosystems	**NYC's** AI Nexus connects local AI startups with businesses to develop, pilot, and scale applied-AI solutions. Startups also get coworking space and go-to-market support.
45%	Workforce and skills development	**Fortaleza** provides free training for young people on how to use and build AI, while connecting residents to employment opportunities. Its Horizonte Digital program will provide 10,000 training places for people aged 15–29 by 2028.
36%	Sector-specific AI initiatives	**Pittsburgh's** PGH Lab pairs four local startups at a time with city departments to pilot solutions to civic challenges. The paid, six-month program uses the city as a real-world testbed.
34%	AI-enabled public-private data exchange programs	**Glasgow's** Open Data Hub gives the public free access to city and partner data, including real-time transit data. It also provides APIs and visualization tools to support innovation and data-driven decisions.
22%	Business support and regulatory services	**Fiji** supports SMEs and startups with business-ecosystem development, fintech incubators and accelerators, capacity-building and a regulatory sandbox.
22%	Industrial transformation	**Changchun** has scaled an AI quality-inspection tool across its factories. Engineers and quality teams use it to eliminate manual-scanning errors and spot minor defects instantly. The tool delivers a return on investment of more than 50%.

Survey Question: How much progress has your city made in using AI to support the economy, business, and industry?

Best practices in economy and business

TOP 10 CITIES USING AI IN DOMAIN	94 Seoul	91 Dubai	91 Singapore	88 London	78 Barcelona	78 Helsinki	78 Melbourne	78 Montreal	78 Ningbo	78 Seattle

Top 10 cities deploying AI for:

Innovation, startups, and AI ecosystems	100%
Industrial transformation	100%
AI-enabled public-private data exchange programs	100%
Workforce and skills development	100%
Sector-specific AI initiatives	100%
Business support and regulatory services	70%

London: Driving growth through AI

London is building its AI economy through a growth strategy, support for AI adoption and skills, and a strong start-up base. The London Growth Plan, launched in February 2025 by the Mayor Sadiq Khan and London Councils with London & Partners, aims to raise productivity growth to an average 2% a year over the next decade, create over 150,000 good jobs by 2028, and make London's economy £107bn larger by 2035.

Business and workforce support

City Hall has committed £12m to help small and medium-sized firms adopt AI.

The London AI and Jobs Taskforce reported that around 2.4 million Londoners work in roles where gen AI could automate a meaningful share of tasks, including more than one million in highly or significantly exposed jobs.

In July 2026, the Mayor accepted the Taskforce's three flagship recommendations and added £18m for young Londoners, bringing City Hall's AI-related support to £30m. This includes £10.5m to extend Support for Young Londoners, reaching about 6,000 people not in education, employment or training, and £7.3m for careers support in schools and colleges.

The recommendations are:

London AI Early Action System: combines labor-market data, employer insight and local evidence to spot AI-driven job changes early.

London AI at Work Partnership: brings employers, workers and educators together to redesign jobs rather than simply automate them.

London Future-Ready Guarantee: an employer-recognized credential for skills like judgment and communication, connecting young Londoners with employers.



From steel city to AI hub

Pohang’s AI-driven competitive growth strategy

Pohang helped power South Korea’s industrialization through steel. Now, the city is pursuing a new goal: to become an AI-enabled manufacturing hub that strengthens its traditional industrial base while creating new engines of growth.

Rather than positioning AI as a separate tech sector, Pohang is embedding it into the industries, assets, and capabilities it already possesses—from steelmaking and advanced materials to local research, startups and workforce development. The city’s goal is to move steel production toward higher-value-added manufacturing while building an ecosystem around AI, secondary batteries, hydrogen, graphene, and other advanced materials.

Making steel smarter

At the factory level, Pohang's AI strategy focuses on practical operational improvements in productivity, quality, efficiency and workplace safety. At Pohang Works, smart-factory technologies are already being expanded, including AI-based video analytics for defect detection, quality inspection, and safety management.

This shifts how manufacturing data is used. Instead of relying only on periodic human inspection or reactive intervention, AI can identify quality issues, detect anomalies, and surface risks faster. The city's longer-term aim is to establish industrial AI infrastructure and testbeds tailored to the steel sector.

Building the computing backbone

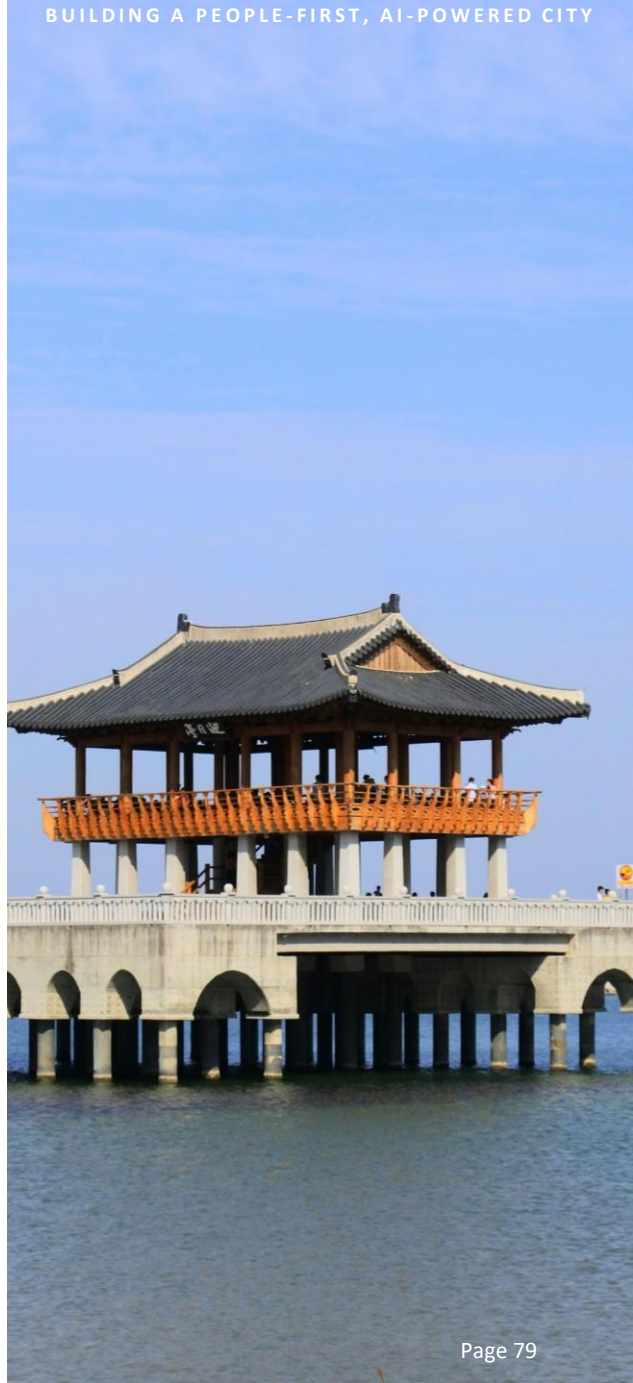
Pohang is backing its industrial plans with large-scale AI infrastructure. In July 2026, construction began on a 40-MW global AI data center at the Gwang Myeong General Industrial Complex, representing approximately KRW 2 trillion in private investment. Alongside it, the city is pursuing the Steel Industry AI Convergence Demonstration Hub from 2026 to 2030, which will provide AI infrastructure customized for steel manufacturing and support demand-driven AI transformation solutions.

Bringing SMEs along

Pohang's strategy aims to ensure AI transformation is not limited to large industrial players. Small and medium-sized manufacturers often face the biggest barriers to digitization, including constrained budgets and limited technical talent. The city is addressing this through the Steel and Metal Digital Transformation Demonstration Center and its No-Code Manufacturing Technology Innovation initiative, which help smaller firms adopt digital tools without building extensive in-house software capabilities.

Creating an innovation flywheel

Pohang is combining industrial modernization with startup development. A planned public-private Digital Innovation Tech Hub will offer workspace for approximately 50 companies and bring together



From steel city to AI hub (continued)

Upgrading quality of living through industrial AI

incubation, investment, and commercialization support. The aim is to create a local pathway for entrepreneurs to build, test, and scale AI-related businesses close to industrial customers.

The city is also planning an Embodied AI Open Platform for 2027–2031, linking its manufacturing agenda with AI and robotics. This could create opportunities to apply intelligent systems in physical industrial settings, where robotics, sensing, and humans work together.

Pohang's strategic sectors—AI, batteries, hydrogen, graphene and advanced materials—are mutually reinforcing. Manufacturers can become early users of AI solutions, while emerging tech firms can gain access to industrial settings in which to prove their products.

Moving beyond infrastructure

AI-led industrial transformation requires reliable power and water, strong industrial-data foundations, support for smaller firms and specialized talent. Pohang is advancing infrastructure, industrial AI applications, startup support and workforce development together, recognizing that no single investment—a data center, training course or pilot—can build an ecosystem on its own.

Pohang is also linking industrial AI to visible improvements in daily life. Through its Smart City Challenge, the city has applied AI, IoT, and data tools to public safety, mobility, and urban management.

AI-powered video search has cut CCTV search and processing time by 37%, while its generative-AI administrative chatbot, Pohangbot, had logged more than 9,000 uses by its July 2026 operational review.

These citizen-facing applications make the broader technology agenda tangible, showing how industrial competitiveness can translate into safer communities, more convenient services, stronger local businesses, and better opportunities for residents.

The lesson: build AI transformation on existing economic strengths—and connect infrastructure, talent, and public value so they reinforce one another.



7. Living, health, and education

DOMAIN AI SCORE **45**



Cities are beginning to use AI to make everyday life healthier, more accessible, and more responsive—particularly through public-health monitoring, social-care coordination and easier access to services. The strongest applications use data to identify needs earlier: detecting health risks, supporting frontline professionals, and helping cities direct limited care and support resources to the people and places where they can make the greatest difference.

AI can also make public services more inclusive. Digital assistants, accessible design, and language support can help residents navigate information and services in ways that work for them, while social-care analytics can give caseworkers a more timely, complete view of vulnerable residents' needs. In healthcare, AI can support—not replace—clinicians and carers by reducing administrative burden, strengthening early warning, and improving decisions.

A senior technology officer from Seoul, put it succinctly: "Our goal is to build a fully AI-powered city where technology responsibly and safety elevates the daily quality of life."

% of cities actively or widely using AI		Urban solutions
44%	Public health and population wellbeing	**Porto Alegre** uses AI in hospitals to track public-health records and manage hospital capacity, helping reduce emergency-room crowding and improve patients' access to care.
41%	Community engagement and quality of life	**Dubai** uses AI to provide residents with personalized services, faster delivery, and proactive support across transit, health and safety, while emphasizing security, trust, and governance
38%	Accessibility, inclusion and language support	**San Antonio** is piloting AI transcription for public meetings, giving residents whose first language is not English access to information that was previously difficult to follow or unavailable to them.
37%	Social services and vulnerable populations	**Kyiv** is testing an AI municipal assistant to help vulnerable residents—including people with disabilities, veterans, households in hardship, and war-affected residents—find relevant support.
22%	Mental health, wellbeing and youth support	**Helsinki's** Hester AI helps residents find online health and social-service guidance, including mental-health support, making it quicker to access appropriate help.
22%	Education and learning in city schools and programs	**Reykjavík** is introducing a gen-AI tool for teachers in its school system, alongside training in AI literacy, responsible use, and verifying AI-generated outputs before they are used in teaching.

Survey Question: How much progress has your city made in the use of the following AI solutions to improve living conditions, health, and education?

Best practices in living and health

TOP 10 CITIES USING AI IN DOMAIN	97 Singapore	94 Dubai	94 Amsterdam	92 Seoul	89 Barcelona	89 Seattle	86 Melbourne	83 Ottawa	81 Madrid	81 Tampere

Top 10 cities deploying AI for:

Social services and vulnerable populations	100%
Education and learning in city schools and programs	100%
Accessibility, inclusion, and language support	100%
Public health and population well-being	80%
Municipal and school-linked health services	70%
Mental health, well-being, and youth support	70%

Xiamen: Extending elder care with AI

Xiamen's Civil Affairs Bureau has identified AI applications to extend support for older residents beyond conventional clinical care. The proposed use cases span in-home health monitoring, personalized rehabilitation, social companionship, cognitive support, and access to public services.

Supporting health at home

One proposed application would analyze breathing, heart rate, sleep quality, falls, and behavioral data from IoT devices in older people's homes. Large-model analysis would generate disease-risk predictions and health insights to support geriatric prevention, treatment, and rehabilitation.

A related tool would develop personalized rehabilitation plans for residents with chronic conditions or recovery needs. Wearables and sensors would track movement and training effectiveness, allowing the system to adjust plans in response to feedback.

Combating isolation

Xiamen is considering customizable VR/AR virtual companions that could provide conversation, entertainment, emotional support, fraud-prevention information, and guidance on public benefits.

Cognitive-support tools would help residents record contacts and schedules, provide tailored reminders, and support memory, attention, and logical-thinking exercises. A civil-affairs AI customer-service model would help residents navigate elder care and other services around the clock.



Survey Question: How much progress has your city made in the use of the following AI solutions to improve living conditions, health, and education?

Improving living and health

Pittsburgh's human-centric partnership strategy

Pittsburgh's AI story is not a narrow tale of automating city hall. It is a broader civic strategy rooted in partnerships—linking universities, healthcare institutions, robotics expertise, employers, labor, and public leadership to improve how people live, learn and thrive.

In the words of Steve Wray, Pittsburgh's Director of Economic Development, "Pittsburgh is a place where we're putting AI to work as a region and as a city." It is a framing that captures the city's role not just within its municipal boundaries, but across the southwestern Pennsylvania economy and innovation ecosystem.

A pragmatic approach

Pittsburgh's strength starts with reinvention. Once defined by steel, the city now stands out for using AI, robotics, and research collaboration to solve tangible problems in health, education, mobility, and quality of life.

"We don't build dancing robots," Wray says. "We build robots that do things and make things and solve problems."

That ethos highlights Pittsburgh pragmatic approach to AI. Wray describes Pittsburgh as a "physical AI city," where intelligence is embedded in the real world through robotics, autonomous systems, advanced manufacturing, health technologies, rehabilitation tools, and mobility applications.

The city's comparative advantage lies in practical innovation: using technology to improve what people can do, how they move, how they recover from illness or injury, and how public and private institutions solve complex problems.

A city of partnerships

Pittsburgh's institutions are uniquely interconnected. Carnegie Mellon and the University of Pittsburgh are only about half a mile apart, with shared networks of students, faculty, and research units.

Their capabilities are different but mutually reinforcing, bringing complementary strengths to shared challenges: Carnegie Mellon University anchors Pittsburgh's global reputation in AI and robotics. The University of Pittsburgh brings complementary clinical, health, and medical research capability.

"You're seeing a lot of collaboration between the two on creating new healthcare data analytics, new healthcare technologies to solve significant challenges, and new rehab technologies using robotics," says Wray. "We have the ability to put all of that together almost as one institution."

Pittsburgh's partnership model extends beyond City Hall and the universities. It includes the city, county, state, foundations, healthcare systems, employers, and research institutions.

Health systems, universities, robotics labs, civic organizations, and regional leaders all contribute pieces of the same operating model, allowing the city to tap into expertise it could not replicate on its own.



Improving living and health (continued)

Pittsburgh’s practical approach to AI innovation

That matters because living, health, and education are deeply interconnected. Better care often depends on data and analytics; greater educational opportunity depends on research institutions; and more fulfilling daily living depends on mobility, accessibility, and inclusive design. Pittsburgh’s partnership model gives it a way to address those issues holistically.

Health that extends into daily life

Pittsburgh’s AI ecosystem extends into healthcare data analytics, rehabilitation, and autonomous systems points to improve recovery, mobility, independence, and long-term wellbeing. Wray cites autonomous wheelchairs as a practical example.

He describes systems that can help disabled veterans live independently by dropping them at a vehicle, navigating around it, and helping them lift themselves into the back without requiring assistance.

The example illustrates why Pittsburgh’s “physical AI” framing matters. The city’s most consequential AI applications may be embedded in rehabilitation devices, assistive technologies, vehicles, factories, energy systems and public infrastructure.

The goal is to use more advanced technologies in ways that improve people’s ability to live safely, move independently, access care and participate in their communities.

Education linked to opportunity

Pittsburgh's 60,000 college students fuel a research-to-workforce pipeline extending beyond classrooms. Initiatives like Build Back Better robotics and Carnegie Mellon's AI-driven community college programs bridge technical training with accessible careers. Wray cites AI tools built with employers, letting learners practice real business scenarios absent traditional internships—a "revolution in education,“ according to Wray.

Pittsburgh’s workforce model also emphasizes augmentation rather than displacement. “Our people are mostly building cobots, not robots,” Wray says, “systems designed to help people work alongside machines.” Carnegie Mellon has worked with the AFL-CIO Tech Institute, while regional robotics initiatives have engaged trades and labor unions on how workers can adopt and train for new technologies.

A city of useful AI

The city’s comparative advantage lies in applied innovation. Whether in healthcare technologies, autonomy, rehabilitation, or accessibility, the emphasis is on tools that can improve outcomes in the physical world. That orientation is especially valuable for urban leaders, because it ties AI investment to visible civic results.





SECTION 7

Charting a people-first AI roadmap

The path to AI transformation

Where is your city on its AI journey?

Cities around the world are in varying stages of AI maturity. Identifying where you are is critical for planning your next steps.

20%
OF CITIES SURVEYED

Starters

Testing AI through pilots and defining use cases and requirements. Still developing AI plans. Facing large talent, governance, and data gaps.

34%
OF CITIES SURVEYED

Implementers

Moving from experimentation to execution. Rolling out AI plans for individual departments. Starting to address gaps in talent, governance, and data systems.

29%
OF CITIES SURVEYED

Accelerators

Expanding AI use across domains while fortifying the talent, governance, and data capabilities needed to scale. Starting to integrate AI plans across departments.

17%
OF CITIES SURVEYED

Leaders

Scaling AI broadly across city operations and services. Strong data, IT, governance, and organizational foundations in place. Most AI plans are integrated across departments.

Increasing AI maturity →

Who are the Starters

At a glance

Examples: Beirut, Cleveland, Detroit, Kinshasa, Ljubljana, Nairobi, Wroclaw

1.47M
Average population

$620.9M
Average annual operating budget

$6.88
Average AI spending per capita

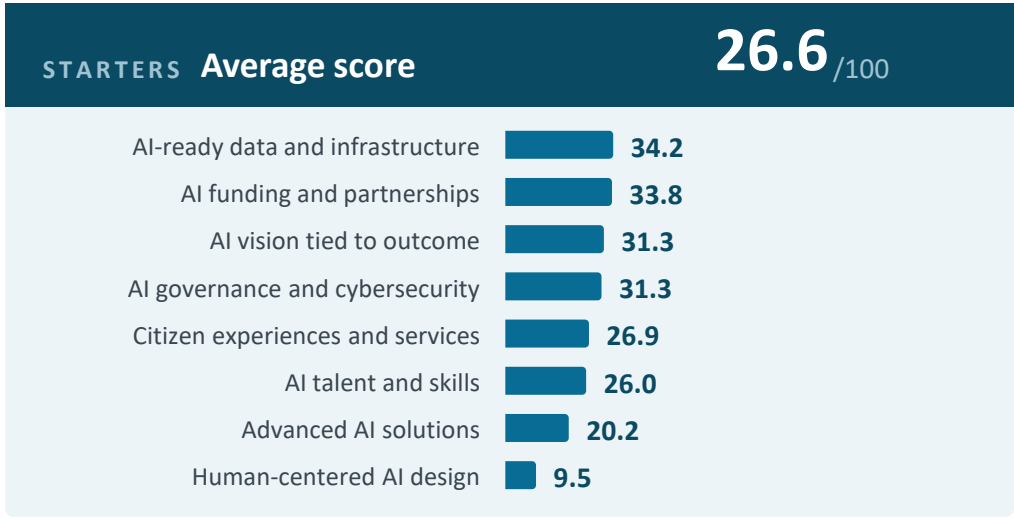
13%
Average ROI on AI

55 months
Average payback period

Many cities treat their AI strategy as an extension of their smart city programs, and for good reason. Much of what AI requires is often in place: solid data and IT infrastructure, proven funding and partnership models, and digital visions and governance mechanisms that can be recalibrated for the AI era. This headstart enables Starters to see early wins, particularly in cost savings, risk reduction, and service quality.

Where Starters struggle

In other areas, however, they have less to build on. Most Starters lack AI talent and skills, and they have limited access to the latest AI solutions, such as agentic, physical, and sovereign AI. The widest gap is in human-led design. Here, smart city programs offer little to build on, so Starters must identify citizens' AI needs and concerns and embed them in their strategy and planning. Growing public backlash against AI makes this task more challenging.



Top benefits

1. Efficiency and cost savings
2. Risk security and compliance
3. Workforce and organization
4. Service quality and user experience

Top challenges

1. Scarce AI skills and talent
2. Competing budget priorities
3. Perceptions of over-surveillance
4. Difficulty justifying ROI/unclear ROI
5. Lack of dedicated budget

Who are the Implementers

At a glance

Examples: Amman, Baltimore, Glasgow, Mumbai, Pittsburgh, Rosario, Thessaloniki

1.29M
Average population

$1,873.9M
Average annual operating budget

$8.61
Average AI spending per capita

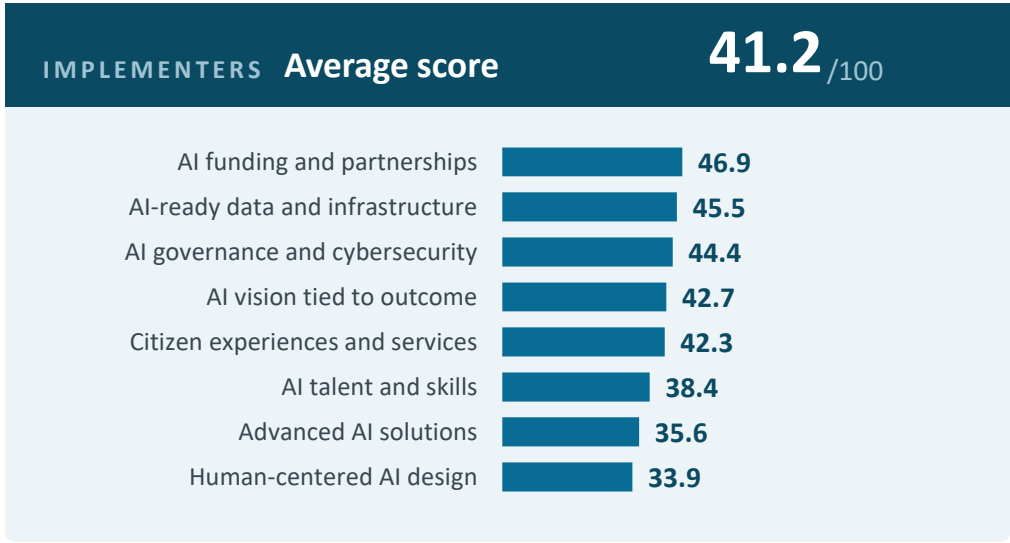
38%
Average ROI on AI

51 months
Average payback period

Implementers are shifting from planning to execution, rolling out AI in key domains. They are expanding partnerships and funding pathways, strengthening AI-ready foundations, closing gaps in talent, security, and data, and using AI to improve self-service and streamline resident interactions. Many are also testing and starting to implement new intelligent technologies, such as generative, agentic, and physical AI.

Scaling what works

Most Implementers are not yet ready to scale AI solutions. Cost concerns, persistent shortages of AI talent, and difficulty demonstrating ROI to elected officials hold many back. Gaps in change management, siloed data, and overlapping point solutions slow citywide integration, while privacy and surveillance concerns risk eroding public trust if not addressed early on.



Top benefits

1. Efficiency and cost savings
2. Workforce and organization
3. Risk, security, and compliance
4. Service quality and user experience

Top challenges

1. Concerns about long-term costs
2. Limited AI skills
3. Competing budget priorities
4. Difficulty justifying ROI
5. Limited change management capabilities

Who are the Accelerators

At a glance

Examples: Bangkok, Cape Town, Chicago, Hyderabad, Ottawa, Prague, Tel Aviv, Yokohama, Zurich

2.67M
Average population

$5,574.6M
Average annual operating budget

$13.73
Average AI spending per capita

47%
Average ROI on AI

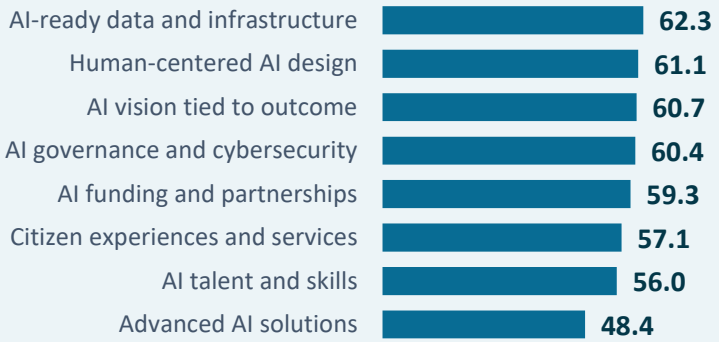
47 months
Average payback period

Accelerators are expanding AI innovation across domains, while fortifying the talent, governance, and data capabilities needed to scale. They are moving cautiously on advanced technologies: implementing more accessible AI solutions, such as generative and multimodal AI, but still testing more advanced applications, such as AI-powered digital twins and agentic and physical AI.

Connecting the dots

As they mature in AI use, they bump against greater cost concerns, AI talent limitations, and integration constraints due to fragmented data and point solutions. To overcome these barriers and drive organizational change and governance, most Accelerators install AI centers of excellence and an AI lead, such as a Chief AI Officer. Cross-departmental use cases help Accelerators make AI a capability in every domain, turning successful deployments into coordinated, citywide capabilities.

ACCELERATORS **Average score** **58.2**/100



Top benefits

1. Efficiency and cost savings
2. Service quality and user experience
3. Risk, security, and compliance
4. Workforce and organization

Top challenges

1. Concerns about long-term costs
2. Limited AI skills
3. Siloed data and fragmented AI point solutions
4. Difficulty justifying ROI
5. Limited change management capabilities

Who are the Leaders

At a glance

Examples: Amsterdam, Boston, Dubai, Helsinki, London, Seoul, Shanghai, Stockholm, Sydney, Tokyo, Washington, DC

4.20M

Average population

$18,000.1M

Average annual operating budget

$31.01

Average AI spending per capita

96%

Average ROI on AI

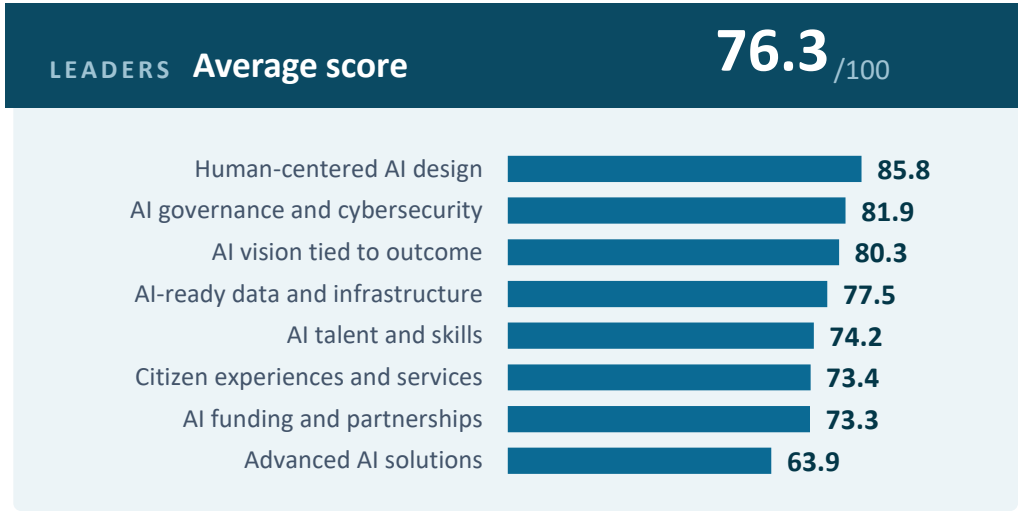
39 months

Average payback period

Leaders are advanced across every dimension of people-first AI transformation. They apply AI across urban domains and connect data and workflows to deliver powerful holistic urban solutions. They are early adopters of emerging technologies, from AI-powered digital twins to agentic and physical AI. As AI is woven into daily city operations, public concerns about surveillance, privacy, and bias intensify. That is why Leaders take governance to the next level, earning trust as purposefully as they build capability.

Leaders illuminate the path forward

To capture AI's full value, Leaders use agentic AI not simply to automate tasks, but to reinvent how work gets done and orchestrate autonomous, multistep solutions. By pairing AI-native hires with seasoned staff they spread new skills while preserving institutional knowledge. By openly sharing their successes, missteps, and solutions, they help other cities to drive economic, social, and service benefits.



Top benefits

1. Efficiency and cost savings
2. Workforce and organization
3. Service quality and user experience
4. Risk, security, and compliance

Top challenges

1. Concerns about long-term costs
2. Siloed data and fragmented AI solutions
3. Difficulty justifying ROI
4. Limited change management capabilities
5. Perceptions of loss of privacy

Building a people-first AI roadmap

Nine steps to becoming a Leader

Becoming a people-first, AI-powered city is a journey. It requires a structured implementation plan with metrics, guardrails, and responsibilities. The journey begins by assessing where your city stands and the foundations for AI success. From there, cities can set an outcome-led vision, build accountable governance, and address resident concerns early. These nine steps below offer a practical, step-by-step playbook for becoming a resilient, adaptive, human-centered city of the future.

1. Assess your starting point	Identify whether your city is a Starter, Implementer, Accelerator, or Leader across the eight pillars of the AI maturity scale. Use this to identify the most material gaps and sequence investment accordingly.
2. Set an outcome-led citywide AI vision	Build a comprehensive AI strategy and roadmap linked to social, service, economic, environmental, and resilience outcomes. Define priority outcomes, roles, milestones, investment needs, and success measures.
3. Create accountable leadership and governance	Appoint a citywide AI leader, establish a cross-functional governance body, and create clear processes for AI strategy, investment, procurement, risk management, testing, escalation, and scaling. Establish policies for transparency, data minimization, retention limits, resident data control, and responsible vendor practices.
4. Start with high-value public problems	Prioritize a manageable portfolio of AI use cases with clear resident and workforce benefits, reliable data, appropriate risk controls, and measurable outcomes. Pilot, validate, and scale only when evidence supports broader deployment.
5. Address citizens' AI concerns early on	Treat citizen concerns as a governance issue, not a communications challenge. Disclose where AI is used and who is accountable; keep humans involved in high-impact decisions; collect only necessary data; test tools with diverse communities; counter misinformation with honest information; and show concrete benefits.
6. Design with people, not just for them	Embed human-centered design, equity, accessibility, and inclusion into AI planning. Document resident and community needs before selecting use cases, engage citizens through co-design, and preserve non-digital service options.
7. Build the shared foundations for scale	Establish interoperable data, digital, connectivity, cybersecurity, and governance foundations. Improve data quality and access, connect systems across departments, and build resilient, secure infrastructure capable of supporting AI at scale.
8. Give the workforce the skills and tools to succeed	Identify AI skills gaps and how to fill them through training, hiring, and partnerships with universities and tech firms. Rethink work processes by breaking them into tasks to be handled by AI or humans. Provide staff with secure AI tools to augment their work, and ensure humans stay in the loop.
9. Measure and communicate public value	Use a triple-bottom-line approach to monitor performance, including metrics for people (such as citizen trust and equity), planet (such as climate resilience and emissions reductions), and profit (such as time savings and cost efficiencies). Publish results, use them to refine the roadmap, and scale what demonstrably works.

Lessons learned along the AI journey:

City experiences in their own words

Increasing AI maturity →

STARTERS

Allentown "AI investments should focus on solving clearly defined community and operational challenges."

Cork "Starting with small, focused pilot projects allows us to safely test new AI tools, learn from early mistakes, and build public trust before expanding across the city."

Minneapolis "AI is useful for staff work but it cannot just be turned on without controls. We need to know what data is going into these tools and who is responsible for checking results."

Nairobi "Successful AI adoption requires strong digital infrastructure, quality data, and continued investment in skills and IT."

Wroclaw "Testing and learning early is key. Small pilots help us understand what creates value before scaling."

IMPLEMENTERS

Bradford "Maintaining transparency and protecting citizen privacy are essential for building public trust in AI initiatives."

Murcia "Collaborating with other cities reduces complex problems and develops ideas that can be widely implemented."

Perth "AI adoption is an ongoing journey that requires continuous learning and adaptation."

Port Harcourt "AI is only as good as the data we feed it, making it essential to clean up and integrate municipal databases before launching new solutions."

Stockton "Trying to automate everything at once is a waste of time and money."

ACCELERATORS

Ankara "Regulatory measures around AI should be altered after a period as real-world scenarios keep on changing, which changes AI use cases."

Kawasaki **"**Before rolling out any technology in the city, a secure and closed network must be built because citizen privacy is not negotiable."

Jerusalem "Effective governance, transparency, and responsible AI practices are necessary to maintain public trust while expanding AI use."

New York "Staff adoption is critical. If people don't want to use AI, they won't."

Prague "Data works best when it is connected across departments. Bringing data together helps teams make quicker decisions and improve coordination."

LEADERS

Dublin "Collaborating with universities, businesses, technology providers, and other cities results in boosting innovation and helps deliver better solutions for complex urban challenges."

Dubai "A strong digital infrastructure and integrated data ecosystem are essential foundations for successfully scaling AI across city operations."

Melbourne "While we scale automated edge computer vision, we preserve privacy and protect public trust."

Montreal "Cybersecurity and personal data protection must be built from the beginning rather than adding later into AI solutions."

Sejong "The cost of AI extends beyond implementation, so operating expenses should be planned for from the start."

Designing an AI native city

How Alatau City will organize government around residents

Most cities inherit fragmented systems, aging infrastructure, and government processes designed for another era. Alatau City, Kazakhstan, is going in a different direction: it is building an AI-native city from the ground up, hard-wiring AI into its operating system. The goal: create an AI approach that anticipates residents' needs, removes friction from daily life, and gives citizens input into how the city evolves.

At the center of this vision is citizen-first architecture built around a secure, sovereign digital identity. Instead of forcing people to navigate separate departments, websites and forms, the city will organize services around real-life events. For example, a resident moving to a new district will receive tailored information on schools, transit and local services. The principle is simple: government should proactively organize around the resident's journey, not make the resident organize around government's bureaucracy.

Reorganizing government from day one

This approach requires an innovative public-sector operating model. Rather than treating transport, utilities, planning, and public services as isolated departments with separate data and priorities, Alatau envisions a shared citywide intelligence layer. An AI-Native Control and Coordinating Center, working through the Smart City Department and Data Governance Division, will integrate real-time information from energy, water, mobility, buildings, public services, and economic activity into a common decision environment. Bayan Konirbayev, the newly appointed Chief Digital and AI Officer, describes this as the city's "central nervous system," designed to connect operational data with coordinated action across the city.

The organizational implication is important. City agencies will remain accountable for their missions, but they will use common data standards, interoperable application programming interfaces, and shared operational tools.

In addition, a central governance function will establish data quality rules, access controls, ethical requirements, and audit mechanisms, while operational teams will be empowered to use the information to improve services in real time. This avoids the common pattern in which cities launch promising pilots that cannot scale because data remains locked inside individual agencies or vendors.

Ensuring sovereign control

Alatau's model also emphasizes sovereign infrastructure. AI models, data pipelines, and decision logic are intended to operate on infrastructure located within Kazakhstan, supporting local data residency, regulatory compliance, and national security.

Konirbayev says the city will retain control over its "digital infrastructure and algorithmic governance," rather than allowing a supplier's proprietary platform to become the de facto city operating system. Open standards and interoperable systems are therefore not merely technical preferences; they are governance choices that preserve public accountability and minimize vendor lock-in.



Designing an AI native city (continued)

Harnessing agentic AI, physical AI, and real-time digital twins

AI-native operating system

The next model refinement is the integration of agentic AI, physical AI, and a living digital twin. Agentic AI will take on bounded, repeatable operational tasks: adjusting traffic signals, predicting utility problems, routing emergency responses, and tailoring routine services. The the city's design calls for guardrails and human oversight for high-impact decisions. AI will handle speed, pattern recognition, and optimization; people stay responsible for judgment, rights, and major decisions.

Physical AI connects intelligence directly to the built environment. Networks of sensors will monitor traffic, air quality, water quality, energy consumption, and infrastructure condition. AI will help control real-world systems through actuators and robotics: managing lighting and heating, identifying maintenance needs, adjusting water and energy networks, or supporting infrastructure inspections. Rather than waiting for a resident complaint or equipment failure, the city can shift toward predictive maintenance and prevention.

Real-time digital twin

Unlike today's digital twins, Alatau City plans to create a continuously updated digital counterpart for roads, buildings, utilities, and services. Urban teams will be able to simulate a transport disruption, test the consequences of a development proposal, predict pressure on utilities, or compare alternative emergency responses before acting. Residents will be able to use the digital twin to see proposed changes and contribute feedback, improving citizen engagement.

The city is also designing for emerging forms of mobility and commerce. Its low-altitude economy plans include drone delivery, urban air traffic management, vertiports and eventual eVTOL passenger services. These systems would be coordinated with the same AI-native control environment that manages ground transportation and public infrastructure.

Alatau is built on two principles: "Digital by Default," connecting all infrastructure, assets and services in one digital ecosystem, and "Tokenization by Default," under which assets and entitlements, such as property rights, are recorded as digital tokens on a secure shared ledger. Each token is a verifiable record of ownership or entitlement that can be transferred, tracked or programmed to follow set rules. This could enable transparent, automatic distribution of benefits and regulated tokenization of physical assets like real estate. Strong safeguards will be essential: consumer protections, non-digital alternatives, and oversight so that efficiency never becomes exclusion.

Lessons for other cities

Alatau's most transferable lesson is that people-first AI begins with operating-model choices: organize services around life events, establish shared data and governance foundations, preserve public control over core digital infrastructure, and embed human accountability in automated decisions. Existing cities cannot start from a blank page, but they can apply the same discipline by redesigning one cross-agency resident journey at a time, connecting data responsibly and treating AI as a tool for better public outcomes.



Alatau City's development is under way, with major infrastructure construction planned for 2026–2030, the first key facilities expected to open by 2030, and phased development continuing through 2050.



SECTION 8

Appendix: Analytical approach

AI maturity methodology

ThoughtLab economists created an AI Cities Maturity Model to gauge cities' progress in AI transformation. It measures eight pillars of AI best practice, each based on one survey question with multiple sub-pillars.

1 Human-centered AI design

13 possible steps

Resident needs and engagement, human-centered design principles, public AI registry, bias audits, data rights, human review and appeals, vendor transparency, impact assessments, and staff ethics training.

2 AI vision tied to outcomes

6 sub-pillars

Shared AI vision, AI priority use cases and metrics, implementation roadmap, ongoing strategy review, business case, and policies on when AI augments, automates or acts autonomously.

3 Robust AI governance and cybersecurity

8 sub-pillars

Governance and accountability, data sovereignty, cyber and incident response, rules for video, biometric and sensor data, responsible AI, risk management, AI inventory, and model testing with humans in the loop.

4 AI-ready data and infrastructure

7 sub-pillars

Integrated, high-quality data, modern scalable IT platforms, cross-department integration, fast connectivity, AI for data management, agentic workflows, and AI-optimized urban infrastructure.

5 Optimized citizen experiences and services

6 sub-pillars

Faster, human-centered services, AI self-service, freeing frontline staff, personalized services, measuring satisfaction and inclusion, and AI platforms for public engagement.

6 AI talent and skills

8 sub-pillars

AI skills needs, staff training and upskilling, preparing residents for change, redesigning roles, workforce planning for people and AI agents, managing AI-augmented teams, talent partnerships, and tracking readiness.

7 Advanced AI solutions

8 technologies

Use of generative, agentic, autonomous, explainable, multimodal, physical, and sovereign AI, plus AI-powered digital twins.

8 AI funding and partnerships

6 sub-pillars

Partner ecosystems, external funding, public-private partnerships and outcome-based models, AI infrastructure funds, collaboration with other cities, and resident and business coalitions.

Scoring methodology

1. Scoring each pillar

Pillar 1: scored by the number of human-centered steps the city has taken.

0 steps	1–3 steps	4–5 steps	6–7 steps	8+ steps
0 pts	**1 pt**	**2 pts**	**3 pts**	**4 pts**

Pillars 2–8: respondents rated progress on each sub-pillar on this scale. The pillar score is the average of its sub-pillars.

0	1	2	3	4
No progress	Exploring, testing and developing plans	Plans in place and starting to implement	Actively implementing in several areas	Widely scaling across the city

2. Overall maturity score and stage

The eight pillar scores were averaged, then normalized to a 0–100 scale. Each city was placed in one of four stages:

Starters	0.0 – 32.9
Implementers	33.0 – 49.9
Accelerators	50.0 – 65.9
Leaders	66.0 – 100

Each city's stage was confirmed through secondary research and ThoughtLab's database of city plans.

AI usage methodology

In addition to calculating the AI maturity score for each city, ThoughtLab economists calculated a usage score showing how widely each city is deploying AI solutions in seven urban domains.

Seven urban domains

- **Safety, security, and resilience**
- **Government administration and management**
- **Digital and physical infrastructure**
- **Energy, utilities, and environment**
- **Transportation and mobility**
- **Economy, business, and industry**
- **Living, health, and education**

How domain usage scores were calculated

1 Rate AI solutions

In each domain, respondents rated their progress deploying multiple AI solutions:

0 = No progress

1 = Exploring, testing, and developing plans

2 = Plans in place and starting to implement them

3 = Actively implementing plans in several areas

4 = Widely scaling plans across the city

2 Score each domain

Each domain's usage score is the average of its AI solution scores.

Scores were then normalized to a 0–100 scale

3 Identify the top 10

For each domain, we identified the 10 cities with the highest usage scores.

Each Top 10 list was confirmed through secondary research and analysis of published city plans.

Case study interviews

Our research team conducted in-depth interviews with decision-makers in 14 cities that have made significant progress in deploying AI across their urban domains to meet the needs of citizens.

These interviews provided actionable insights into how cities are using AI to address key urban challenges, the progress they are making with advanced forms of AI, and the triple-bottom-line benefits they are generating. The interviews provided valuable insights and instructive case examples.

ThoughtLab thanks the following cities and individuals for their participation in the research program.

City	Interviewee	Title
Alatau City, Kazakhstan	Bayan Konirbayev	Chief Digital and AI Officer
Austin, Texas	Sharmila Mukherjee	EVP, Chief Strategic Planning & Development Officer, CapMetro
Bologna, Italy	Stefania Paolazzi	Innovation Manager, Comune di Bologna
Coral Gables, Florida	Raimundo Rodulfo	Director of Innovation and Technology
Dublin, Ireland	Jamie Cudden	Executive Manager, Corporate Services & Transformation
Kyiv, Ukraine	Victoria Itskovych	Director, IT Department, Kyiv City Council
Memphis, Tennessee	Eric Keane	Chief Information Officer
Pittsburgh, Pennsylvania	Steve Wray	Economic Development Director
Pohang, South Korea	Lee Da-yeon	Member of the Pohang City Council
Raleigh, North Carolina	Mark Wittenburg	Chief Information Officer
Reykjavik, Iceland	Inga Rós Gunnarsdóttir	Chief Data Officer
San Antonio, Texas	Geoffrey Urbach	Product and Partnerships Lead, Emerging Technology
Toronto, Canada	Neena Sethi	Director, Digital Policy and Office of the CTO
Yantai, China	Qing Lin	Deputy Director, Senior Engineer, Yantai Big Data Center

List of 215 cities in benchmarking study by maturity stage

Leaders (37)

Aarhus
Abu Dhabi
Amsterdam
Austin
Barcelona
Berlin
Boston
Buenos Aires
Copenhagen
Dubai
Dublin
Helsinki
Hong Kong
Kigali
London
Madrid
Melbourne
Montreal
Munich
Putrajaya
Rotterdam
San Francisco
San Jose
Seattle
Sejong
Seoul
Shanghai
Sharjah
Shenzhen
Singapore
Stockholm
Sydney
Taipei
Tallinn
Tampere
Tokyo
Washington, DC

Accelerators (63)

Al-Ain
Ankara
Atlanta
Bangkok
Beijing
Bengaluru
Bogota
Bologna
Brussels
Busan
Cape Town
Casey
Chicago
Curitiba
Dallas
Dammam
Denver
Doha
Dusseldorf
Geneva
Harare
Hobart
Hyderabad
Istanbul
Jeddah
Jerusalem
Kawasaki
Kuala Lumpur
Kuwait City
Lagos
Lisbon
Los Angeles
Lucknow
Manama
Medina
Montevideo
Muscat
Nantes
New Delhi
New York
Ningbo
Oakland
Osaka
Oslo
Ottawa
Oxford
Paris
Portland, OR
Porto Alegre
Prague
San Diego
Sapporo
Stuttgart
Tel Aviv
The Hague
Trondheim
Turin
Utrecht
Virginia Beach
Yokohama
Zaragoza
Zhuhai
Zurich

Implementers (73)

Abha
Adelaide
Aizuwakamatsu
Amman
Aracaju
Auckland
Baltimore
Bradford
Brno
Bucharest
Calgary
Cardiff
Cartagena
Changchun
Charlotte
Christchurch
Columbus
Cotonou
Darwin
Davao
Fortaleza
Frisco
Geelong
Gilbert
Glasgow
Gold Coast
Guadalajara
Guayaquil
Honolulu
Izmir
Jacksonville, FL
Johannesburg
Kampala
Kansas City
Konya
Las Vegas
Makassar
Makati
Manchester
Miami
Milwaukee
Moncton
Mumbai
Murcia
Naples
Newcastle
Niterói
Orlando
Pearland
Penang
Perth
Pittsburgh
Port Harcourt
Rosario
Sacramento
Sao Paulo
Sheffield
St. Paul
Stockton
Strasbourg
Sunshine Coast
Surabaya
Susono
Tangshan
Thessaloniki
Toronto
Tucson
Tulsa
Utsunomiya
Vancouver
Vila Velha
Windsor
Winston-Salem

Starters (42)

Accra
Aguascalientes
Allentown, PA
Anaheim
Antalya
Asuncion
Bakersfield
Beirut
Belgrade
Berkeley
Brantford
Cambridge
Cankaya
Cleveland
Cordoba
Cork
Debrecen
Detroit
Duitama
Dundee
Ekurhuleni
Gaborone
Gaziantep
Halifax
Kinshasa
Kochi
Libreville
Limerick
Ljubljana
Logan
Macapa
Manila
Minneapolis
Monrovia
Monterrey
Nairobi
Takamatsu
Tbilisi
Toulouse
Victoria
Wroclaw
Yantai

Full list of cities providing survey responses or AI plans

Cities in **boldface** we have both surveys and AI plans, cities in *italics* we only have survey data, and the remaining cities we only have AI plans.

Aarhus
Abha
Abu Dhabi
Accra
Adelaide
Aguascalientes
Aizuwakamatsu
Al-Ain
Alameda County
Albuquerque
Algiers
Alice Springs
Allentown, PA
Almaty
Amman
Amsterdam
Anaheim
Ankara
Antalya
Antwerp
Aracaju
Arlington, TX
Ashburton
Asuncion
Atlanta
Auckland
Austin
Bakersfield
Baltimore
Bangalore
Bangkok
Barcelona
Barrie
Basel
Basseterre
Bayside (Sydney)
Beijing
Beirut
Belfast
Belgrade
Belo Horizonte
Bend
Bengaluru
Bergen
Berkeley
Berlin
Bern
Bilbao
Birmingham
Blayney
Bogota
Boise
Bologna
Bordeaux
Boston
Bradford
Brantford
Brasilia
Bratislava
Bremen
Brighton
Brisbane
Bristol
Brno
Brussels
Bucharest
Buenos Aires
Buffalo City
Bursa
Busan
Cairns
Calgary
Cali
Cambridge
Cambridge, MA
Camden
Campinas
Canberra
Cankaya
Cape Town
Cardiff
Cartagena
Casey
Chambéry
Changchun
Charlotte
Chennai
Chiba
Chicago
Chisinau
Chongqing
Christchurch
Cleveland
Cluj-Napoca
Cockburn
Cold Lake
Cologne
Colorado Springs
Columbus
Copenhagen
Cordoba
Cork
Cotonou
Coventry
Cupertino
Curitiba
Da Nang
Dallas
Dammam
Dannevirke (Tararua)
Darmstadt
Darwin
Davao
Debrecen
Denton
Denver
Detroit
Devonport
Doha
Dortmund
Dresden
Dubai
Dublin
Duesseldorf
Duitama
Dundee
Durban
Dushanbe
Edinburgh
Edmonton
Eindhoven
Ekurhuleni
Ellensburg
Enschede
Espoo
Essen
Florence
Fort Worth
Fortaleza
Foshan
Frankfurt
Frankston
Fredericton
Frisco
Fukuoka
Gaborone
Gaziantep
Gaziantep
Geelong
Geneva
Ghent
Gilbert
Glasgow
Glen Eira
Gold Coast
Gothenburg
Grand Paris
Grand Rapids
Graz
Greater Sudbury
Groningen
Guadalajara
Guangzhou
Guayaquil
Gwangju
Halifax
Hamamatsu
Hamburg
Hamilton
Hampton
Hangzhou
Harare
Helsinki
Henderson
Higashihiroshima
Hiroshima
Ho Chi Minh City
Hobart (Tasmania)
Hokitika (Westland)
Hong Kong
Honolulu
Houston
Hyderabad
Indianapolis
Indore
Ipswich
Istanbul
Izmir
Jacksonville, FL
Jakarta
Jeddah
Jerusalem
Jiangmen
Johannesburg
Kagoshima
Kampala
Kansas City
Kaohsiung
Karlsruhe
Kawasaki
Kelowna
Kenora
Kigali
Kinshasa
Kisumu
Kitchener
Kobe
Kocaeli

Full list of cities providing survey responses or AI plans (continued)

Cities in **boldface** we have both surveys and AI plans, cities in *italics* we only have survey data, and the remaining cities we only have AI plans.

Kochi	London GLA	*Medina*	Nagpur	**Oslo**	**Putrajaya**	**San Francisco**	St. Louis
Konya	Long Beach	**Melbourne**	**Nairobi**	Ostrava	Qingdao	**San Jose, CA**	**St. Paul**
Kosice	Los Alamitos	Mesa	Nanjing	**Ottawa**	Quebec City	San Jose	St. Petersburg
Krakow	**Los Angeles**	Mexico City	**Nantes**	Oulu	Quito	Santa Cruz County	Stirling
Kuala Lumpur	Louisville	*Miami*	Naples	**Oxford**	Rennes	Santiago	**Stockholm**
Kuwait City	Lower Hutt	Miami-Dade County	Nara	Panama City	Reykjavik	**Sao Paulo**	*Stockton*
Kyoto	Lucerne	Middlesbrough	Nashville	**Paris**	Richmond, VA	**Sapporo**	**Strasbourg**
Lagos	*Lucknow*	Milan	**New Delhi**	*Pearland*	Riga	Saskatoon	**Stuttgart**
Lahti	Lyon	**Milwaukee**	**New York City**	*Penang*	Rijeka	Scottsdale	*Sunshine Coast*
Las Vegas	*Macapa*	*Minneapolis*	*Newcastle upon Tyne*	**Perth**	Rio de Janeiro	**Seattle**	*Surabaya*
Lausanne	Macedon Ranges	Mississauga	Nice	Philadelphia	Riverside	*Sejong*	Surat
Lebanon	Madison Wisconsin	Monash	Niigata	Phoenix	Riyadh	Semarang	*Susono*
Leeds	**Madrid**	*Moncton*	Nijmegen	Piacenza	Rome	Sendai	**Sydney**
Leoben	Maebashi	*Monrovia*	*Ningbo*	*Pittsburgh*	**Rosario**	**Seoul**	**Taipei**
Lexington	Maitland	**Monterrey**	*Niterói*	Plano	**Rotterdam**	Sevilla	*Takamatsu*
Libreville	*Makassar*	*Montevideo*	Norrköping	Plovdiv	**Sacramento**	Seville	*Tallinn*
Lima	*Makati*	Montpellier	North Sydney	Plzen	Saharanpur	**Shanghai**	**Tampere**
Limerick	Malaga	**Montreal**	Norwich	*Port Harcourt*	Saint John	*Sharjah*	*Tangshan*
Linz	Malmo	Moscow	Nuernberg	**Portland**	Saint Petersburg	*Sheffield*	*Tbilisi*
Lisbon	*Manama*	Mount Gambier	**Oakland**	Porto	Saitama	**Shenzhen**	Te Kuiti (Waitomo)
Little Rock	**Manchester**	**Mumbai**	Odense	*Porto Alegre*	Sakarya	**Singapore**	*Tel Aviv*
Liverpool	*Manila*	Mundaring	Olot	Poznan	Salt Lake City	Skövde	Tempe
Ljubljana	Marseille	**Munich**	Oradea	**Prague**	Salvador	Sofia	**The Hague**
Lodz	Mataró	*Murcia*	Örebro	Pretoria	San Antonio	Solna	**Thessaloniki**
Logan	Matsuyama	*Muscat*	**Orlando**	Providence	**San Diego**	Southampton	Tianjin
London	Medellin	Nagoya	**Osaka**	Pune	San Diego County	Spokane	**Tokyo**

Full list of cities providing survey responses or AI plans (continued)

Cities in **boldface** we have both surveys and AI plans, cities in *italics* we only have survey data, and the remaining cities we only have AI plans.

Toledo
Toronto
Toulouse
Tromsø
Trondheim
Tsukuba
Tucson
Tulsa
Turin
Turku
Utrecht
Utsunomiya
Valencia
Valparaiso
Vancouver
Vaughan
Victoria
Vienna
Vila Velha
Virginia Beach
Warsaw
Washington DC
Waterloo
Wellington
Wentworth
Wetaskiwin
Whakatane
Wiesbaden
Windsor
Winston-Salem
Wroclaw
Wuhan
Xiamen
Xian
Yantai
Yogyakarta
Yokohama
Zagreb
Zaragoza
Zhongshan
Zhuhai
Zurich





SECTION 9

Sponsors and advisors

Sponsors and partners

Special thanks to our sponsors and partners who contributed their time and expertise to this benchmarking study. Without their support, this research would not have been possible.

Sponsors















Partners





Advisory board

We thank the members of our advisory board, who brought their experience as city leaders, academics, and urban innovators to this program. They were instrumental in shaping the direction of the research, sharing their urban insights, and challenging our thinking. We appreciated their time and commitment to creating our AI playbook.

Institution	Name and title
Alatau City, Kazakhstan	Bayan Konirbayev, Chief Digital and AI Officer
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Barcelona City Council	Barbara Pons, Commissioner for 2030 Agenda
Cambridge University Judge Business School	Dr. Henning Stein, Fellow
CapMetro, Austin	Sharmila Mukherjee, EVP, Chief Strategic and Planning Officer
Carnegie Mellon University	Anand Rao, Professor
Cary, North Carolina	Nicole Coughlin, CIO
Coral Gables	Raimundo Rodulfo, Director of Innovation and Technology
CTIA	Michelle James, Vice President, Strategic Industry Programs
Dell	James Meakin, Global Solutions Marketing Director

Institution	Name and title
Dubai Quality Group	Dr. Rami Shaheen, Secretary General of the AI Subgroup
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European Forum for Urban Security	Asma Kaouech, Senior Program Manager
FedEx	Caitlin Adams Maier, Managing Director, Global Media & Public Affairs
	Arvind Rajagopalan, Vice President, Data & AI
FTI Consulting	Abdo Al Habr, Senior Managing Director
	Robin Bachmann, Senior Managing Director
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	Karessa Torgerson, Global Trends and Foresight Practitioner
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	Marcie Miller, External Communications Manager
Itron	Carlos Lopez, Senior Product Marketing Manager, Smart Cities Americas
	Ty Roberts, Vice President of Marketing, Network Solutions
Kyiv, Ukraine	Denys Nazarenko, CIO Advisor
Mayors of Europe	Svetlana Tesic, Co-Founder
McKinney Economic Development Corporation	Michael Kowski, CEO
Microsoft	Dan Narloch, Senior Product Marketing Manager, Government
	Doug Priest, Transportation and Urban Infrastructure Lead

Institution	Name and title
NVIDIA	Jumbi Edulbehram, Director, Global Public Sector
	Charbel Aoun, Director of Smart Cities and Spaces
Pittsburgh, Pennsylvania	Steve Wray, Economic Development Director
Raleigh, North Carolina	Mark Wittenburg, CIO
Reykjavik	Inga Rós Gunnarsdóttir, Chief Data Officer
RIT of Dubai	Dr. Sanjay Modak, Assistant Professor and Chair, Graduate Programs and Research Department
San Antonio, Texas	Geoffrey Urbach, Product and Partnerships Lead, Emerging Technology
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Sustainable Urban Strategies	Bob Borzillo, President
UC San Diego Design Lab	David Graham, Executive Leader, AI and Data Analytics
United Cities	Kari Aina Eik, Chair
USC Sol Price School of Public Policy	Frank Zerunyan, Professor of the Practice of Governance
Wireside Communications	Joya Subudhi, Founder and Partner

Project team

We assembled an outstanding team of urban experts, editors, writers, designers, and AI specialists to manage this comprehensive city research program and to produce a rich portfolio of thought leadership analysis and decision-support tools.



Lou Celi
Program Director
Led project team, research program, data analysis, and editorial output.



Daniel Miles
Project Manager
Managed the day-to-day program and oversees data analysis and modeling.



Janet Lewis
Editor
Provided editorial support for the eBook, executive summary, and other content.



David Godinez
Lead AI Engineer, Neulogic
Architect of the AI City Navigator and data benchmarking platform.



Matt Kendall
Senior Writer
Analyzed data trends and helped to write eBook and other content materials.



Barry Rutizer
Client Service Director
Set up sponsorship coalition and helped to manage client relationships.



Laura Garcell
Lead Designer, Neulogic
Designed AI City Navigator, data benchmarking tool, and other program materials.



Soni Solano
Program Coordinator
Scheduled interviews and coordinated project and research activities.



Eric Elizes
AI Product Engineer
Provided AI support for research initiatives and delivery systems.

ThoughtLab

ThoughtLab is an innovative thought leadership and economic research firm providing fresh ideas and evidence-based analysis to help business and government leaders cope with transformative change. We specialize in analyzing the impact of technological, economic, and demographic shifts on industries, cities, and companies.

To learn more about ThoughtLab, visit: **www.thoughtlabgroup.com**

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