Shaping Cities of Value

Outcomes from the 2023 Asia Pacific Cities Summit (2023APCS) & Mayors' Forum – City Leaders' Forum

Brisbane 11–13 October, 2023
#2023APCS

KPMG

2023 ASIA PACIFIC CITIES SUMMIT & MAYORS' FORUM
Brisbane, Australia
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In October 2023, KPMG proudly sponsored the
2023 Asia Pacific Cities Summit (2023APCS) & Mayors' Forum
Shaping Cities for our Future. The Summit drew leaders from 171 cities
to explore innovative urban development for sustained impact.

We were excited to facilitate the City Leaders' Forum, an opportunity
for CEOs and other senior managers to share strategies and insights.
KPMG's Cities of Value framework was the basis of lively conversation
– including an "Idea Factory" activity focused on innovative solutions
in digital, physical and sustainable development.

This report outlines the Cities of Value framework along with
key insights from the 2023APCS. We are inspired by the energy
and ambition of city leaders, and we hope these insights spark
collaboration across the region – we look forward to seeing them come
to life at the next Asia Pacific Cities Summit & Mayors' Forum in 2025.

Foreword

The Asia Pacific Cities Summit & Mayors' Forum has been welcoming city leaders for more than 25 years, creating a space to propel government and business relations as we showcase our cities to the world.

The award-winning Asia Pacific Cities' Summit has become a hallmark event for those involved in city governance, drawing an alumni of more than 600 participating cities and one of the largest gatherings of mayors in the world.

Under the overarching theme of 'Shaping Cities for our Future', the 14th Asia Pacific Cities Summit & Mayors' Forum (2023APCS) was held in Brisbane from 11 – 13 October 2023.

The 2023APCS was the first Summit held at full physical capacity since the global pandemic with almost 1,200 delegates welcomed from a record-breaking 171 cities, including 118 Mayors, Deputy Mayors and equivalents. The 2023APCS provided an unmatched opportunity for leaders to engage in person with international peers and discuss how they can better shape the future of their cities.

Building on the success of the inaugural event in 2021, the City Leaders' Forum has become a permanent addition to the APCS Program, offering non-elected public sector staff including Chief Executive Officers, Divisional Managers, Director Generals and Departmental Managers from throughout the Asia Pacific region an opportunity to share their insights.

This year's City Leaders' Forum, powered by KPMG, explored how cities can deliver new levels of value for residents. This report is a tangible outcome of the 2023APCS City Leaders' Forum and includes suggestions and insights from an esteemed group of city leaders who represented more than 40 cities.

I hope you benefit from their insights as you contribute to creating cities of value in your own city and beyond.

**Lord Mayor Adrian Schrinner
City of Brisbane**

Key Insights from the 2023APCS City Leaders' Forum

The 2023APCS emphasized the importance of integrating technology with physical infrastructure and a sustainable approach to city planning, guided by a strong focus on the needs of citizens and effective collaboration across stakeholders.

DIGITAL

City services should be technology-enabled data-driven, and digitally delivered.

Digital investments should balance citizen experience with operational efficiency.

Reuse of digital assets maximizes value; co-design with stakeholders is vital.

Governance and trust are foundational for public acceptance of AI and other advanced digital technologies.

Digital strategies should aim for smart, connected, and inclusive cities.

PHYSICAL

Urban planning should focus on developing vibrant, integrated, and safe environments.

Inclusive housing and polycentric cities can enhance community engagement and economic activity.

Private finance solutions can crowd in other private sector partners across design, construction, risk, sustainability and operations – leading to innovation and enhanced public service outcomes.

New models of housing can mitigate economic and social disparities.

Innovative anchoring and construction methods can create dynamic and sustainable urban landscapes.

SUSTAINABLE

Tailor sustainability initiatives to local priorities and citizen needs.

Design cities for longevity with adaptive infrastructure and circular economy practices.

Leverage technology to advance environmental goals and resource efficiency.

Embed social equity in urban design to foster inclusive growth and mitigate inequality.

Ensure financial sustainability through a balanced portfolio of investments and progressive service models.

Contents

What are Cities of Value?

Cities are capable of generating multiple layers of value – social, economic, environmental, lifestyle, cultural and more – for their residents, workers, businesses and visitors. They are also made up of complex ecosystems of stakeholders who have diverse priorities and agendas.

These multiple layers can make it challenging to define and measure a city's value, particularly for city leaders who are accountable for governance and growth. Based on KPMG firms' experience working with a range of cities and local government entities from across the globe, we have developed a framework designed to unlock these layers of value – through three pillars and three enablers.

Three pillars of value

Digital

Harnessing digital technology and data to deliver value to citizens through improved experiences, insight-led allocation of resources and greater connectivity, while building trust and ensuring security and data privacy.

Physical

Developing vibrant places, integrated transport networks, public infrastructure, inclusive housing and innovative real estate developments that stimulate economic activity, connect communities and promote safety, security and social wellbeing.

Sustainable

Embedding resilience and adaptability into the environmental, social and economic fabric of cities to protect value for citizens of the future.

Three enablers of value

Across each of these pillars, there are three enabling characteristics cities should nurture to drive further value.

+ **Citizen centricity**
– Understanding citizen needs and investing in the capabilities required to stay in tune as needs evolve; making these a central tenet of the decision-making framework when developing policies, designing solutions and delivering services.
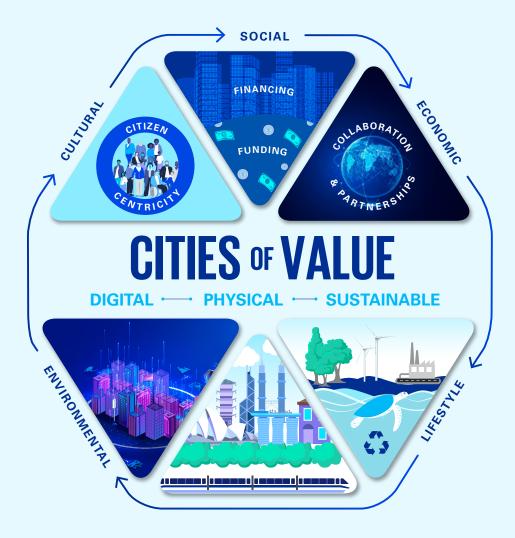
+ **Collaboration and partnerships**
– Forging partnerships among the city and other levels of government, education institutions, private industry, community groups and not-for-profits on programs, projects, services and solutions.

+ **Funding and financing**
– Accessing sustainable funding and financing solutions – from private and public sources – that enable cities to deliver exciting new digital, physical and sustainable solutions.

In this publication, we explore each of the three pillars more deeply – outlining the key principles that city leaders can consider and sharing our regional and local experience through case studies.

We also reflect on the insights that emerged through the 2023APCS and define a series of strategic actions that city leaders can focus on now to drive value for the future.

1

Digital

Increasing urbanization across emerging and developed cities is driving growth in demand for city services in the Asia Pacific region. City authorities must do more with less – finding ways to drive greater resilience and productivity from their organizations. Accessing and using technology is more prevalent in the urban context than rural areas and demand is not abating. This growing appetite for digital services and interactions, expedited through the COVID-19 pandemic, is leading to an increase in the volumes of data generated by citizens, business and visitors.

It was clear from discussions at the City Leaders' Forum that citizens expect the same (or better) seamless, intuitive, personalized and multichannel services that they receive through the private sector – there is a strong intersection between the quality of citizen experience and the outcomes delivered by city services.[1] Cities should listen to and understand what's most impactful for their citizens and collaborate across organizational boundaries to reduce friction points. To achieve this, every city outcome needs to be technology enabled, data driven and digitally delivered, while placing citizen needs at the center.

[1]   Citizen experience excellence in local government – KPMG UK
[2]   Trust in Artificial Intelligence | Global Insights 2023
       – KPMG Australia

The increasing volume of digital technologies and services strongly intersects with the physical realm. For example:

+ Some cities are exploring digital twin technology to try to future-proof infrastructure and property, running scenarios around traffic flow and flood events and testing potential decarbonization impacts of different interventions.

+ Smart sensors are helping cities manage traffic, maintain their road networks and improve their public waste collection.

+ The metaverse is presenting an alternative channel of demand for services and information.

+ People are seeking and expecting a digital experience at venues and events.

For cities, this presents a challenge in striking the right balance of digital investment for maximum physical citizen demand.

Hyperautomation through advanced technologies such as artificial intelligence (AI) and machine learning (ML) presents a powerful solution for cities seeking improved productivity and experience from their services. However, public trust in these capabilities is low, particularly when deployed by the public sector.[2] Trust is crucial for AI solutions to be truly transformative, and within the city ecosystem, citizens expect the government to build and maintain that trust.

With these dynamics in mind, city leaders can apply several core principles to deliver value through digital capabilities:

Design for the future
Cities should create digital assets with architectural integrity to optimize investment and ensure that these assets work well within the city ecosystem and beyond. Fragmented architecture impairs return on investment from digital assets, impacting the potential for value now and into the future.

Re-use and recycle
The principle of re-use is key when cities invest in digital assets and is another driver for maximizing return on investment. Consider how a digital capability can be leveraged to solve multiple problems – for example, digital twin capability that can be used across multiple scenarios as new problem statements are defined, or to enable different tiers of government or segments of the city.

Define the problem
Without a clear use case for digital assets, cities risk low levels of adoption – leaving significant value on the table. A clear problem statement is crucial when multiple tiers of government or sectors are working together but targeting different outcomes. It's essential to agree on the use case and create a collaborative governance model to benefit all parties.

Outside-in perspective
Cities should put citizen needs at the center of their digital services, offering omnichannel solutions to serve the digitally connected as well as the digitally disadvantaged and those who prefer a more human-centric interaction. Cities need to balance ethical use of citizen data with delivering better and more personalized services. They can do this through implementing data protection measures, adopting ethical principles, using data analytics responsibly, and involving citizens in decision-making processes.

CASE STUDY

Daejeon City

Located in the central region of South Korea, Daejeon is the country's fifth-most populous city (1.5 million as of 2019) and is famous for its urban valley dotted with hot springs and surrounding forested mountains. A prominent feature of Daejeon's economy is the high volume of government and private sector research and development institutes, including 23 universities and colleges, as well as the presence of some of South Korea's largest conglomerate organization research centers.[3]

Smart City Daejeon Creation Action Plan

In 2022, Daejeon City announced the "2022 Smart City Creation Action Plan", aimed squarely at improving the quality of life of its citizens, as well as driving greater economic competitiveness of the city's key industries. The Action Plan is designed around a "DNA" strategy to deliver a city that enjoys intelligent services based on data (D), networks (N), and artificial intelligence (A) – with these DNA components set to deliver across five intelligent service areas: convenient transportation, rapid response disaster safety, smart economy, pleasantly managed environment, and public administration open access to all.[4]

This plan involves a series of exciting digital transformation programs – some of which include the development and establishment of:

+ a digital twin-based intelligent disaster prediction platform

+ big data safe zones

+ big data open labs

+ smart building certification system for the private sector

+ a civilian safety SOS learning and development lab

+ a Daejeon region problem-solving platform

+ a real-time hospital sharing system

+ a big data platform for the livelihood economy

+ a smart museum and library.

KPMG's role

As part of its Smart City vision, Daejeon City is testing and implementing more sophisticated, citizen-centric service delivery models – and KPMG in South Korea has supported the City with several key initiatives under this program.

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[3] Daejeon City homepage (English language) – https://www.daejeon.go.kr/english/index.do

[4] Daejeon City promotes the creation of a smart city – https://smartcity.go.kr/en/

Digital library and citizen-centric event services

Daejeon is home to several prominent cultural events, including the annual Yu-seong Spring and Craft Beer festivals. In the past, these and other major events were carried out with limited use of digital assets and service delivery. KPMG in South Korea supported the City to establish a digital library related to its service providers for these festivals (i.e. food trucks, performers, influencers) and to establish a ranking system (based on objective evaluation metrics) that provides enhanced insights into their economic contribution and service delivery. This incentivizes service providers to deliver to an exceptional standard, with this ranking data being made available to certain local research and development institutes for further analysis and strategic future event planning.

The IP digital marketplace

The Electronics and Telecommunications Research Institute Holdings (ETRI Holdings) is a prominent national research and development institute in South Korea, with a major presence in Daejeon City. A key function of ETRI Holdings is the facilitation and promotion of intellectual property transactions between ETRI and the private sector. To expand its coverage, ETRI Holdings decided to establish an intellectual property (IP) digital marketplace based on the R&D assets developed through projects and experiments, including artificial intelligence coding, H/W, S/W, and experts with knowledge of deploying these capabilities.

KPMG professionals worked with ETRI Holdings to shape business models for this marketplace to help showcase the value and features of different intellectual property offerings and solutions – helping to make these products and applications more visible and broker transactions between venture capital, private equity, corporate enterprises, and ETRI. Negotiations are just beginning for these offerings to be used by Daejeon City to solve city problems relating to social welfare and regional economic growth.

AI fintech financing for regional economy

Commercial financing for innovative technology applications or local merchants and entrepreneurs within the Daejeon economy is typically only available to organizations with a strong or mature credit history – making it challenging for entrepreneurs and new market entrants to access the required capital to develop their ideas.

To help address this dynamic, Daejeon City collaborated with KPMG in South Korea to help establish a peer-to-peer financing application (fintech solution), underpinned by credit rating capabilities driven by artificial intelligence (AI) machine learning. This digital solution has helped to expand the availability of capital to the regional economy ecosystem.

City benefits

Daejeon City offers tangible insights into how digital solutions can deliver enhanced levels of value to city residents and visitors. Clear examples include:

+ Economic value through enhanced partnerships between research and development institutes, entrepreneurs, and private capital.

+ Cultural value through higher-quality events and citizen-centric service delivery – enabled by data sharing, insights, and strong levels of data protection.

+ Social value in the form of enhanced citizen safety, healthcare, and education services.

These and other digital solutions currently in the works are expected to underpin continued value delivery to the citizens of Daejeon City into the future.

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Physical

We heard from city leaders that they are under immense pressure to attract and retain residents, tourists, businesses, and capital. This coincides with work from home, public safety, housing affordability and other pressures that are transforming the way cities are planned, designed and built.

The physical urban environment has never been more important to the value of cities. With the pandemic ushering in new models of work, live and play, cities are facing unprecedented challenges in attracting residents, tourists and new business – and the economic benefits that come with them. This means the need for innovation has never been greater – think the development of exciting new places, convenient and rapid forms of mobility, compelling and accessible events, diverse customer offerings, energetic workplaces, inclusive housing solutions and best practice public safety.

Our project experience has revealed several innovations that leading global cities are prioritizing, which can act as principles which cities should consider in shaping value-driven physical city environments:

Leveraging big data to drive citizen-led planning

Planning public infrastructure and spaces based around the needs, desires and demands of citizens. In the past, community and citizen requirements have been gathered by stakeholder consultation – often with the loudest and most powerful community voices being best heard. Leading cities are now leveraging big data to understand citizen patterns to design cities, spaces and partnerships to maximize citizen engagement, commercial activity and social benefit.

Embracing integrated models of housing

Many cities globally and in the Asia Pacific region are experiencing housing supply and affordability crises – with access and affordability inhibiting people and families at the lower end of the socio-economic spectrum from entering the housing market – fueling wealth inequality, homelessness and social unrest. City leaders are actively considering more inclusive housing solutions, including integrated models of development that offer a blend of social/public and affordable market housing.

Developing polycentric cities to enable 'work, live, play' closer to home

The traditional model of single single central business district (CBD) cities may be a thing of the past. We are witnessing a rising polycentric city trend, that sees multiple business districts spread across a wider city domain, allowing citizens the ability to work and play in closer proximity to home, supported by a wide range of place-based services. A major benefit of this model is the creation of economic hubs closer to communities, helping to alleviate social divides and employment access that are commonly exhibited in the outer suburbs of single CBD cities.

Transport-enabled development, rather than development to enable transport

In central business districts and high-people traffic locations, embracing an approach in which mass transit public hubs should be planned with the topside developments and surrounding spaces as the priority, rather than the transport infrastructure as the predominant focus. This shift in mindset is based around the notion that transport is an enabler of citizen value, not the endgame.

Innovative anchoring

The traditional model of inner city precincts commonly involves large-scale commercial real estate as major asset anchors. With shifting office usage patterns in a post-pandemic world, opportunities exist to introduce more innovative approaches to anchoring precincts including combinations of schools, universities, hospitals, sports and arts venues. Diversity across cities is also important, and cities that embrace varied anchor propositions across precincts stand to create more vibrant and attractive destinations – for citizens, tourists and the workforce.

Embracing innovative construction and design approaches

Innovative approaches to project planning can help reduce waste, enhance site safety, mitigate time and cost risks, and offer greater efficiencies in asset management. This involves urban infrastructure and real estate development underpinned by digital models of design, data-driven construction and asset management and modular forms of construction. Strategies such as building information modeling, digital twins and offsite manufacturing are supporting the development of city assets that are greener, safer and lower risk to build.

CASE STUDY

Kaohsiung City Government

Kaohsiung City, Taiwan's third most populous city with a population of 2.73 million as of October 2023, boasts a rich convergence of natural, physical and industrial assets. The city features a strong industrial economy underpinned by manufacturing, steelmaking, oil refining, shipbuilding and more. It is also home to extensive natural assets including coastal beaches and islands, parks and mountain ranges, as well as a sophisticated network of port, rail and road transport infrastructure assets.

Water scarcity has been an increasing threat to Taiwan's economy and its communities. In responding to this challenge, Kaohsiung City Government brought together the strategic dimensions of the environment, economy and innovation by committing to the development of the Linhai Sewage Plant and Discharged Water Recycling Build-Transfer-Operate (BTO) Public Private Partnership (PPP) within Taiwan's industrial and technological hub zone.

The project was developed at a cost of approximately US$150 million and, in its first phase, will treat 55,000 cubic meters per day (CMD) of sewage and produce 33,000 CMD of reclaimed water – with demand expected to rise in the future. The core aims of this project were to alleviate pressure on regional water resources and waste management systems through the provision of water and waste management to Kaohsiung City's industrial zone, provide an opportunity for the development of Taiwan's reclaimed water industry and deliver a prominent net zero carbon showcase project.

KPMG's role

KPMG in Taiwan was entrusted to review HDEC-CTCI (Linhai) Corporation's compliance with the 18-year PPP investment contract. This included analysis of a series of commercial documents, the Corporation's financial operations and systems and evaluating the Corporation's financial viability to provide Kaohsiung City Government with appropriate data, analytics and insights to inform its decision to partner with the Corporation.

How Kaohsiung City is delivering value to citizens

As the industrial hub of Taiwan, stable water supply to the Kaohsiung industrial zone is critical to the development of the country's heavy industries (petrochemical, steel, chemical and technology industries), bringing multiple layers of value to local industries and the community.

Economic: According to the Taiwan Water Resources Agency, Ministry of Economic Affairs between 2011 and 2019, there was a total water supply shortfall of 530.6 million cubic meters, which was expected to worsen in the absence of intervention. With wastewater supply unaffected by climate change, it has grown to become an important new water source in Taiwan. The support this provides to Taiwan's heavy industries are expected to support the expansion of other sectors in the supply chain, including construction, real estate and broader public consumption.

Social: The recovery of water resources is a solution to overcome resource scarcity as well as an embodiment of circular economy. The introduction of stable recycled water supply has reduced pressure on traditional sources of supply to consumers – potentially alleviating future price pressures and water conservation initiatives on households.

Environmental: The reclaimed wastewater plant allows the city to achieve an effective use of water resources by utilizing each drop of water twice. This project also has the potential to reduce the need for more water infrastructure such as dams – limiting any future burden on the natural environmental and water ecosystem.

Financial: A key feature was the city's use of private funding sources to bring the project to life. Whilst the BTO model enabled Kaohsiung City to leverage private infrastructure funding, it also resulted in the establishment of partnerships with private sector specialists in the water and waste sector, whilst driving business innovation and enhanced infrastructure risk management outcomes.

"Linhai BTO is more than a physical water and waste infrastructure project. By unlocking new water supply and waste-water recycling services, the project created an opportunity to generate economic value to our technology and industry partners, social value through reduced demand pressures on our traditional sources of water to residents, and environmental value as a leading net zero circular economy showcase project."

Steven Chen,
Global Infrastructure Sector Power Lead,
KPMG in Taiwan

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3 Sustainable

Sustainability is imperative for Cities of Value. City leaders are striving to deliver on the multidimensional balancing act of economic growth and social equity, while preserving cultural heritage amidst rapid development. This includes the responsible stewardship of the environment in the face of urbanization trends.

Leaders must face the sustainability opportunity by addressing housing affordability and access, economic inequality, transportation access and congestion, and climate change resilience. Through our work with cities, we have identified several fundamental principles to drive balanced levels of sustainability in cities.

Cities are unique – define the local problem and city boundaries

Sustainability is not a one-size-fits-all approach, and each city has distinct needs – some prioritize economic growth while others focus on social cohesion. These needs are predominantly shaped by the people and households that are fundamental to a city's value. Sustainability can only be achieved when urban leaders invest in understanding and prioritizing the issues that are most relevant to their citizens.

Design for the future – mitigation, adaptation and resilience

Urban centers continue to be major contributors to global carbon emissions, making decarbonization an imperative for Cities of Value. This underscores the pivotal role of city governments in leading the charge. While reducing embodied carbon in buildings is important, addressing the demand side of the equation is equally crucial. Designing cities with reduced reliance on carbon intensive services holds tremendous potential for meaningful impact, with asset resilience as a top priority for city leaders – existing and future urban infrastructure must be able to withstand the challenges caused by rising temperatures and shifting weather patterns.

Sustainability efforts in Cities of Value should be collaborative – underpinned by trust and shared investments through innovative partnerships and business models. Kuala Lumpur is positioning itself as a leader in sustainable climate action, and plans to achieve net zero status and increase its resilience against climate hazards by 2050. One of the region's best models for sustainable urban environment is Sunway City, an 800-acre development with a fully integrated green township. Read more about this low-carbon city.

Circular economy and resource efficiency – demand and supply side strategies

Collaboration with businesses, research institutions and communities is essential for fostering innovation and engagement in delivering circular economy benefits. Cities of Value are heavily invested in establishing and developing circular economy infrastructure and services such as facilities for organic composting, specific material recycling and construction and demolition waste processing. However, investing in these facilities only addresses the supply side challenges. The demand side is equally important and depends on the purchasing choices of urban consumers. Cities of Value provide incentives that disrupt purchasing habits to influence more sustainable choices (e.g. recycled products, pre-loved items, the sharing economy) and foster investment in resource recovery initiatives.

By fostering a culture of sustainability, leaders can steer Cities of Value towards a resilient, environmentally responsible and prosperous future. KPMG Australia's report Potential Economic Pay Off, Circular Economy, estimates that the benefit of a circular economy is likely to rise to AU$210 billion in GDP (in present value) and an additional 17,000 full-time equivalent jobs for Australia by 2048. Opportunities such as energy efficiency in dwellings and food waste reductions represent the greatest impacts in dollar terms, due in part to the importance of these sectors in the Australian economy, representing a huge opportunity for Cities of Value.

Community centric

Social and economic inequality is an increasing challenge for leading developed cities and there's a need for inclusive growth that benefits all residents, particularly those from low-income or marginalized groups. Key measures for social inclusion include affordable housing, mental health resources and services to combat homelessness and social isolation. Economic inclusion efforts include job training, supporting small businesses with incentives, and connecting marginalized communities to grants and initiatives. Places and programs, such as parks, community centers and public events, are key to driving community engagement. Preserving cultural heritage fosters community pride while attracting investment and tourism.

Financial sustainability: a portfolio perspective

Financial viability is at the core of city-wide strategy, especially as it relates to designing new policies or services and making large investment decisions, such as new public infrastructure. But not every investment decision needs to demonstrate positive financial value – some commitments will drive immense social and economic value, but also come with significant financial cost – think homelessness support, childhood education programs and elderly health services. Cities that take a holistic view of financial sustainability, through a 'portfolio wide investment view' stand to deliver multidimensional value, whilst also maintaining the financial health of the city budget.

CASE STUDY

Auckland Council

As a member of the C40 Cities Network, Tāmaki Makaurau Auckland needed to establish an integrated and inclusive climate action plan aligned to the Paris Agreement. Along with outlining a clear strategy for cutting greenhouse gas emissions – to support holding global temperature rise to well below 2° Celsius and pursuing efforts to limit it to 1.5° Celsius – they also needed to show how the city intends to adapt to the impacts of climate change while delivering wider social, environmental and economic benefits.

When Auckland Council set about developing this plan – named Te Tāruke-ā-Tāwhiri by Auckland's mana whenua (Māori iwi (tribes) and hapū (sub-tribes) with ancestral relationships to certain areas in Tāmaki Makaurau, where they exercise customary authority) – it recognized that the region's response to climate change must reflect residents' values and be appropriate for the region. A key part of this context was identified as Auckland's bicultural foundations and its statutory obligations to Māori, the Indigenous peoples of Aotearoa New Zealand, under Te Tiriti o Waitangi[5] – with partnership and active participation as key principles.

An integrated partnership approach
At the outset of the climate action plan's development, Auckland Council sought a positive partnership with Auckland's mana whenua. In the early stages of planning, all mana whenua of Tāmaki Makaurau were invited to take part in workshop hui (meetings) to input into scoping the action areas for the public consultation document. These and other early interactions shaped the action areas in the first consultation document and set the foundation for how the plan has developed with input from mana whenua and other rōpū Māori (Māori groups).

Mana whenua, through the Mana Whenua Kaitiaki Forum[6], a collective of the 19 hapū and iwi authorities of Tāmaki Makaurau, established a climate change working group with representatives from the forum, the council and Māori subject matter experts to focus on supporting the development of climate actions for Tāmaki Makaurau. This partnership was instrumental in ensuring the incorporation of kaupapa Māori (Māori approaches) and mātauranga-a-iwi (tribal wisdom) values and principles into the plan from the outset.

The council and forum partnership also supported the contribution of a Māori subject matter expert rōpū (group) and rōpū rangatahi Māori (young Māori) to contribute and take part in the development of the plan. During the consultation phase of the plan, mana whenua and the council piloted a parallel engagement approach to support and activate Māori communities on climate change issues.

[5] Te Tiriti o Waitangi – https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/response/Pages/te-tiriti-o-waitangi.aspx

[6] Mana Whenua Kaitiaki Forum – https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/response/Pages/mana-whenua-kaitiaki-forum.aspx

The shared goals of this partnership approach were to:

+ share mana whenua and Māori narratives of climate change
+ provide Māori communities with places to share their whakaaro (thoughts) on climate change
+ increase Māori engagement and feedback on the draft plan during the council's consultation period
+ seek out and secure opportunities for collective activations in the short and long term.

To seed the kōrero (narrative) of climate change action with Māori in a way that was meaningful and accessible for Māori, mana whenua iwi led wānanga (educational meetings), hui and other community activations in their rohe (tribal areas). These activations included:

+ local and subregional events at marae (meeting places), hosted by mana whenua and community partners
+ rangatahi-led activations
+ social media, radio and online campaigns.

City benefits

As a result of this integrated, partnership approach with mana whenua, Te Tāruke-ā-Tāwhiri (Auckland's Climate Plan) contains both a specific and cross-cutting priority action area – Te Puāwaitanga ō te Tātai[7] is focused on ensuring intergenerational whakapapa relationships of taiao (natural world), whenua (land and tāngata (people) are flourishing across all the plan's action areas, and a specific response to the plan from mana whenua, Te Ora ō Tāmaki Makaurau Wellbeing Framework[8]. The plan acknowledges mana whenua as the first peoples of Tāmaki Makaurau, and an intimate part of the ecological and cultural fabric of the region, providing a more holistic and integrated foundation point from which to address the interlinked issues of climate, biodiversity and nature.

This partnership approach with mana whenua to address the city's broad sustainability issues has carried on through the delivery of Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan, through actions such as the regeneration of the Puhinui Stream[9] and in the development of He Kete Mātauranga[10], a space for supporting businesses and communities to realize their aspirations and build climate resilience through Māori knowledge systems and frameworks.

How Auckland Council is delivering value to its citizens

Environmental: A rangatahi Māori rōpu was also established to develop Māori-led climate action projects, based on four key priorities identified by rangatahi Māori with Te Tāruke-ā-Tāwhiri: wai (water), whenua (land), kai (food) and whare (home) with two climate projects developed in collaboration with iwi mana whenua, now in the delivery phase. These include:

+ The Oneoneroa Repo (Wetland) Restoration Project, which is supporting climate mitigation and resilience, by reducing coastal erosion, protecting and restoring the habitat of taonga species and supporting carbon sequestration.
+ Taahuna Paa Mahinga Kai, delivered by Ngaati Te Ata, one of Auckland's iwi mana whenua, and their rangatahi rōpu. This project aims to restore and rebuild the traditional mahinga kai (food cultivation) practices of Ngaati Te Ata, providing food security and resilience, in the face of a changing climate.

Cultural and social: Beyond these specific benefits for Auckland's climate and wider sustainability response, the lessons learned through the development of Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan have led to broader improvements to Auckland Council engagement with Māori communities and audiences. Consultation for the plan set a new benchmark of 25 percent Māori consultation response through formal submissions. Feedback from the activations undertaken to support the plan's development led the council to change its formal consultation process, including the development of different consultation submission forms for Māori communities.

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Time is running out for cities >

Navigating extreme heat in Australia >

[7] Te Puāwaitanga ō te Tātai – https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/te-ora-o-tamaki/Pages/about-te-puawaitanga-o-te-tatai-priority.aspx

[8] Te Ora ō Tāmaki Makaurau Wellbeing Framework – https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/response/Pages/te-ora-o-tamaki-makaurau-framework.aspx

[9] Puhinui Streami – https://www.aucklandcouncil.govt.nz/plans-projects-policies-reports-bylaws/our-plans-strategies/topic-based-plans-strategies/environmental-plans-strategies/aucklands-climate-plan/natural-environment/Pages/puhinui-stream-regeneration.aspx

[10] He Kete Mātaurangai – https://climateconnectnz.com/learn/he-kete-matauranga

Ideas for a brighter future: The City of Fortuna in 2040

At the City Leaders' Forum, participants used the Cities of Value framework to collaborate on initiatives that could create, deliver or protect value for citizens of the future. They tackled the hypothetical challenges and opportunities of a fictional future city called Fortuna and pitched their ideas in an "Idea Factory" style to a panel of judges, including Brenda Walker (Global Government Sector Head, KPMG).

OUR CITY OF THE FUTURE – FORTUNA

The AI-generated Mayor of Fortuna described the city of Fortuna in 2040 and what they're most famous for.

"We have left behind the notion of a central business district, and are now a polycentric city of interconnected, vibrant and livable nodes. We bring services and experiences to our people, rather than bringing people to the city. As an established city, we've worked hard on upgrading and adapting our existing infrastructure and systems, to deliver on outcomes related to livability, sustainability and equitable access, alongside financial return.

As we've digitized assets and services they have become more integrated, allowing us a system of systems view, which informs the way we plan and deliver, as well as providing unprecedented experiences to our users and residents. Importantly, digitization has given us the means to listen and respond to all voices in our community, especially the less prominent ones.

We have seen hives of vibrant sustainable activity grow out of our existing concrete. In Fortuna, we are a part of – not apart from – nature. We make decisions based on social and environmental impact data as much as financial, and this means that our complex ecosystem of city actors are aligned in making investments and delivering innovations that consider biodiversity, resilience, adaptation and social value.

Our citizens live in a city where they can access personal, valuable and intuitive services. They work, live and play in safe, connected and vibrant places. New jobs, investment and talent are flowing to this city. Our residents are proud and visitors leave wanting to return.

There have been no silver bullets – this has been a journey of progress over perfection where we have sought to place our citizens' values and needs at the center, and forge strong partnerships with government, business and experts within the city ecosystem."

The top three ideas presented to the judging panel were:

THE BIG IDEAS

AI TECHNOLOGY

Enabling a smart, digital way for all of the City's community members to engage meaningfully and equitably with the democratic process of decision-making.

MODULAR CITY

Creating breathable, sustainable, resilient and liveable cities for generations to come.

SHARE TANK

Where city solutions are freely shared across an open network of cities.

PROBLEM TO BE SOLVED

- Inequitable access and contribution to decision-making processes.
- Risk of bias in decision-making at all levels.
- Inadequate transparent and accountable decision-making.
- Inconsistent governance and process.

- Accelerated commercial and social infrastructure development.
- Enhanced affordability of construction materials.
- Eco-friendly materials improving waste and sustainability.
- Advances in city safety.

- Cities are always solving local problems. "Share Tank" would be a free digital library where cities' solutions can be shared, rather than reinventing the wheel.

THE SOLUTION

Physical: Repurpose physical assets for new uses – commercial, residential, or civic.

Digital: Digital solution to offer AI driven insights into governance with round-the-clock support and public access.

Sustainable: Enhances efficiencies in expenditure in local government.

Physical: Develop "Lego-like" eco-friendly, durable materials for versatile building blocks for various infrastructures.

Sustainable: Employ circular, green-certified methods for carbon-absorbing, reusable or recyclable building blocks.

Physical: Sharing design and delivery lessons for enhanced infrastructure.

Digital: AI library platform to exchange city solutions with clients and partners.

Sustainable: Create efficiencies with local government resources and spending.

VALUE CREATED FOR FORTUNA

- Ensure adaptive decision-making.
- Accelerate decision-making for all issues.
- Maintain complete decision-making transparency, considering various interests.
- Provide stable, adaptive political guidance aligned with resident values and future needs.

- Utilise modular "bricks" for eco-friendly, resilient cities.
- Tailor infrastructure to city and residents' immediate needs.
- Harvest lifestyle, environmental, social, and economic benefits for city adaptability.
- Boost economy via cost-effective construction methods.

- "Share Tank" would be seen as a market leader in developing solutions: a "Silicon Valley" hub for ideas and innovation, which would attract investment from a range of investor groups.

THE WHAT: Areas of focus for cities in the future

Attendees at the City Leaders' Forum were asked to share their perspectives on the one thing that cities should be doing to unlock future value. Four main themes emerged.

Deliberative democracy

Listening to and understanding citizens and their needs, by developing active connections between citizens and their governments to instill a greater level of democratization in the city models of governance.

"Have 'connection' – within and between communities as the core objective of decisions around cities"

Environmental and social sustainability

Prioritizing environmental and social sustainability above near-term economic outcomes, placing community at the heart of owning and driving change.

"Redefine the meaning of growth to value sustainable 'right-sized' housing, business and genuinely connected communities"

Leverage technology for innovation

Invest in technology in ways that are scalable and community centric, to democratize customer service and address regulation so that it is an enabler not a barrier.

"Accelerate democratization of data and digital customer services"

Intentional collaboration

Collaboration within city ecosystems and across networks of other cities.

"Stop competing and start thinking and learning as a collective"

THE HOW: Actions for cities to deliver a brighter future

City leaders from the Asia Pacific region are acutely aware that the strategies, policies and decisions they make now have the potential to enrich the lives of current and future citizens. To help with this, KPMG professionals have analyzed the insights gathered from hundreds of city leaders at 2023APCS to define a series of future-focused strategic actions.

Digital

Digital foundations

A thriving city requires a complex web of information flows and data exchange to create its social and economic fabric. City leaders understand that digital capabilities are essential for this, but often find it challenging to create a compelling case for investing in the fundamentals required to deliver on the digital promise. Important programs to shift to cloud-based integrated core technology systems, or to implement data frameworks and governance, can often struggle to secure sufficient funding in the face of physical projects that deliver more visible and tangible benefits to communities.

To overcome this and enable better decisions on technology investment, city leaders must focus on defining and governing an architecture strategy that is closely aligned to and evolves with city strategy. Value-based decision-making is also key; in making critical investment decisions about fundamental digital capabilities, defining clear traceability to citizen value will help leaders to appropriately evaluate the cost-benefit to communities over time.

This approach also positions cities to leapfrog. With the right fundamentals in place, city leaders are better able to make value calls on the myriad of new digital solutions being showcased to them by partners within the ecosystem. Whilst the public sector should not necessarily be at the leading edge of technology, they can be fast adopters. Having strong digital foundations in place enables city governments to partner more effectively and accelerate citizen value by adopting solutions which have been tested and refined elsewhere.

Build digital assets to democratize data

Intentional adoption of smart, digital, experience-centric solutions is indispensable in overcoming today's challenges and aligning city services to the future needs and wellbeing of the public. Leading cities think beyond the adoption of solutions, shifting the mindset towards one of creating "digital assets" that can benefit the entire city ecosystem. Rather than simply building a solution to digitize service provision within the organizational confines of a city government, think about how other actors in the city ecosystem could leverage the data within that solution to improve the city experience and intentionally design your solution with their needs in mind.

Democratizing data must occur within appropriate safeguards to preserve the trust and security of that data, and with clear consent from the owners of that data. Cities who do this most effectively also recognize that data in and of itself is useless without having people who know how to use it or a clear value-based use case or range of use cases against which it can be applied.

Physical

Urban ecosystems

Instead of focusing on individual 'projects', leading cities are developing interconnected vibrant ecosystems. This shift is underpinned by citizen-centric planning and complemented by a deep understanding of supply side factors such as finance, land and buildings.

To make this change, city leaders require citizen and community-level data that highlights services deficits across community groups, while providing clear-cut evidence of social and economic benefits. This requires a structured, secure and considerate approach to data capture and measurement – enabled by technology and synthesized through advanced analytics.

We believe the next evolution of data-driven infrastructure planning is likely to adopt neuroscience-led urban design. This involves planning that is based on data related to human sensory engagement. Leading cities will pursue this pathway by seeking out collaborative partnerships with leading neuroscience academics, urban designers and socio-economic value practitioners.

Local areas: reimagine, reinvent and repurpose

Leading cities are already embracing opportunities to reorganize physical spaces for adaptive re-use – is yours? Prominent examples include:

Office repurposing: Shifting CBD office usage patterns in the post-pandemic world are presenting opportunities to address housing and short-stay accommodation shortfalls.

+ **Industrial spaces:** Car parks and vacant industrial spaces being leveraged for innovation hubs and community spaces.

+ **Connected buildings:** Elevated walkways that connect buildings high above city transport networks to create more walkable cities. Examples include the New York High Line and concepts under development in other cities such as Wan Chai Connect in Hong Kong.

+ **Heritage and historical buildings:** Adapting heritage structures that have fallen into disuse for wider public purpose – think Apple's re-use of the Carnegie Library in Washington DC, the transformation of the Idea Exchange Old Post Office in Cambridge, Ontario or the Federal Mills Woolstore restoration into office spaces in Geelong, Australia.

Cities should start this journey by mapping out their portfolio of heritage, under-utilized, abandoned and dis-repaired assets; brainstorming the art of the possible and assessing the public value benefits and return on investment of reinvesting in these assets.

Sustainable

Communities: inclusive growth

There are no shortcuts to long-term social development – sustained investment in housing, human services, health, education and homelessness are key. But there are several near-term actions cities can take to drive immediate inclusive growth:

+ Shifting from in-person services to digital offerings, ensuring access for less connected communities.

+ Service and information provision in multi-language format for a wide range of cultures.

+ Diverse payment systems to support varying levels of citizen financial sophistication.

+ Geographic positioning of new public services offices in locations most in need of the service, while also offering local employment prospects.

Environment: whole of life emissions

Emission reduction aspirations of cities are rapidly rising and we expect the next iteration of this movement will focus on "whole of life" emissions. This requires investment in new technology and adoption from leading real estate and infrastructure players.

To action this, cities will need to support the development of regulatory frameworks that impose penalties and incentives with regards to whole of life emissions. But a balance must be struck – cities that overreach will drive businesses and investment into other markets – with recognition of transitionary costs, supported by development planning incentives (density, typology, approval expedience) for lower-emission initiatives expected to be valuable.

Financial: sustainability

There are several key factors for cities to preserve and grow long-term financial value:

+ **Capital sources:** Cities that embrace innovative capital sources, including private and institutional funding, stand to capture enhanced levels of socio-economic growth. This requires strong financial management to ensure growth doesn't come at a cost of future financial distress.

+ **Service delivery models:** Striking a balance between core in-house driven public services, with innovative private sector support across a range of areas – socio-economic strategy, place design, asset operations, financial management and more.

+ **Viable infrastructure:** Understanding whole of life financial viability should be fundamental to infrastructure investment planning – regardless of whether central/state grants are available – ensuring leaders are well placed to commit, delay or decline new citizen infrastructure.

Collaboration

Economy: seed, weed and feed

The role of government in city economies is centrally important. But how far does the public sector need to go in driving the market? We believe leading Cities of Value will embrace a "seed, weed and feed" model.

Government often needs to be the "seed" that catalyses new industries that offer long-term social and/or economic benefit. This means the provision of early-stage investment and incentives to attract academics, startups and entrepreneurs to develop new investment propositions.

But it is not the domain of government to fund new markets in perpetuity – to be sustainable, these industries need to become self-reliant, with growth to come from the "feed" of private capital – allowing government bodies to divest and recycle their 'seed' capital into new economic opportunities.

Equally, government bodies need to strike the right level of ongoing intervention. This means establishing industry frameworks that incentivize growth, whilst also having regulatory powers to step in and "weed" – penalizing activities that are inconsistent with community value expectations.

Citizen centricity

Leadership

Citizen centricity isn't just about executing new programs and initiatives with citizen needs kept front of mind, it is about a whole-of-system mindset that relies on unwavering leadership.

This requires an inclusive approach – one that prioritizes space for all voices, whether civil servants or public stakeholders. Decisions on strategy and priorities need to be made with clarity about where value can be delivered to those who need it most, rather than those who call for it most loudly.

Ultimately, to achieve the benefits envisaged by Cities of Value, a long-term focus is needed in an inherently short-term system – necessitating strong and bold leadership on the part of city leaders and elected officials, with a laser focus on legacy.

Funding and financing

Funding and financing is a persistent challenge for cities and arguably the most important enabler of innovation – creativity follows the money.

This is particularly so for cities in emerging economies where public budgets are more susceptible to economic volatility. This creates challenges in attracting external capital both in good times (when funders fear uncertainty and volatility might be around the corner) and in bad times (when funders take flight to low-risk jurisdictions).

The first step in building more sustainable funding partnerships starts with a robust capital management plan. These plans need to delve into short-term and long-term physical asset expenditure profiles; forward-looking infrastructure development; clear-cut analysis of credit rating factors of international rating agencies; debt and capital service obligations; and realistic projections of future income streams from rates, taxes, charges and secondary income sources. Cities that develop, evolve and consistently execute on these plans will naturally develop enhanced financial and risk management credibility, resulting in markedly higher confidence levels and appetite from providers of capital.

Acknowledgements

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Contact us

To discuss any of the findings from this report or to discuss how we can support you and your city on its journey to a prosperous and more sustainable model, reach out to our team today.

Michael Camerlengo
Head of Government Asia Pacific Partner
KPMG Australia
mcamerlengo@kpmg.com.au
+61 3 9838 4015

Mair Brooks
Co-Head of Cities & Local Government Asia Pacific Partner
KPMG in New Zealand
mairbrooks@kpmg.co.nz
+64 9364 0939

Elizabeth Watts
National Lead, Local Government Partner
KPMG Australia
ewatts@kpmg.com.au
+61 2 9455 9061

Deven Chhaya
Co-Head of Cities & Local Government Asia Pacific Partner
KPMG in Singapore
devenchhaya@kpmg.com.sg
+65 6213 2416

KPMG.com