PUBLIC SECTOR

Building a smarter future for ANZ

The smart city is—at least in theory—a place where every building, object, and gadget in a city, town, or council shares information to reduce the friction of red tape. Even though the technology is still developing, the smart city concept presents a new vision for public service; one that shifts the focus from bureaucracies to the residents. By combining vast amounts of data from local authorities with the latest Internet of Things (IoT) technologies, cities can create prosperous, sustainable, and safe communities.

Understanding the smart city

Developing potential smart city opportunities is easier said than done. Today's cities need to strike a balance between the myriad needs of individual and business interests in the community, while enabling service entities to efficiently carry out their responsibilities. They have to protect user data while being open and transparent. Finally, residents want the ability to access services and information using whatever method best fits their personal preferences.

When attempting to leverage technology to improve the cities of Australia and New Zealand, there's another complication specific to the region: while an urban city may benefit greatly from improvements to transit, architecture, and energy-saving technology, regional townships have different needs that should be addressed individually.

Acknowledging the differing needs of regional and metropolitan councils is a major priority for ANZ's public sector organisations. In the Australian government's recent Smart Cities Plan[1] to overhaul urban technology, the organisation provides an overarching survey of the unique needs that affect different types of cities:

> "While congestion and affordability are critical issues in capital and major cities, many regional cities are suffering from low or negative growth, as jobs lost in the manufacturing sector, or more recently the resources and energy sectors, are not replaced quickly enough. We need to plan for the future of regional cities, maximising their unique advantages and supporting their long term growth."

While it's true that technology stands to provide specialised benefits for ANZ's cities based on factors like size and region, the most important principle for them to follow is that every technological tool should aim to serve the people first and foremost.

Putting the resident first

The most successful smart city projects share a key attribute: they are people-centric. Services and infrastructure should be designed in response to ratepayer needs, rather than expecting individuals and businesses to fit into the flow of internal bureaucratic systems.

The smart city initiatives with the most potential to evolve and flourish will begin with community engagement. To build trust, government structures need to be transparent about why new technology is being introduced, to communicate the research behind the business case, and reinforce the messaging that helps their constituents understand what they are trying to achieve.

When designed with the citizen's perspective in mind, all services can and should be made accessible by whichever the user's preferred channel. In some cases, technology isn't the answer. Human contact can still be the marker of great service, particularly when dealing with complex issues or advice.

Remember to create simple feedback loops so residents know they are being heard and taken seriously. They will let you know whether a process is working and allow you to refine and improve it. Have a communications plan in place so you are prepared for both positive and negative comments; and have a sound response ready that outlines a spirit of openness and preparedness for future progress.

Each council will approach its future through the lens of what matters most to ratepayers, what is realistic and achievable, and what will produce the best possible outcomes for the investment. But there's no need to try and map every piece of data on day one; instead, value can be achieved by doing things piece by piece. Early smart city projects that have the most positive, measurable impact are often small, affordable, and low-risk.

Simplifying processes helps create intuitive pathways that allow citizens to find what they're looking for, to easily ascertain eligibility, and to be directed to points of contact as they navigate across agencies to their desired end point.

But no council operates in isolation. Much of the work they do is linked to wider state and federal-level legislation and compliance, such as planning, environment, transportation, and health. Many projects are linked to external private organisations. To keep the citizen in mind at all times, it's crucial that smart city projects integrate these labyrinths of siloed information into seamless, logical processes that work toward a goal of consistent progress.

For local authorities, being 'responsive' now means providing a comprehensive suite of services online as well as via traditional contact points. Residents and businesses expect the same immediacy, flexibility, and convenience in their dealings with local government as with all their other transactions. Turnaround expectations are moving from days to minutes.

Today's government services are often managed by separate departments. Other than routine activities like bill paying, most life events cross departmental boundaries. When someone moves to a new house, they want all the tasks they need to complete the transaction pulled together rather than navigating complex and often impenetrable bureaucratic mazes.

With the power of data and analytics, governments can improve their infrastructure-related decisions based on citizen input and behaviour.

The next step: Smart cities in practice

Once residents have been invited to play a role as active participants in the growth of a smarter city, it's time to kick off discussions about urban planning—a venture which also stands to benefit greatly from modern technology. With the power of data and analytics, governments can improve their infrastructure-related decisions based on citizen input and behaviour.

Most governments already have access to timetables and traffic data that help evaluate different modes of transport. Data scientists can now overlay that information with social media hot spots, telling you what areas are most frequented and when, and allowing you to find better ways to serve the travel needs of your citizens. That information could even be linked with ride-sharing and other services, allowing you to fill the gaps your public transport networks can't reach. With the right transport options in the right place at the right time, usage increases, revenues increase, and public transport is provided more efficiently.

Further, when you know where people are going and how they are getting there, you can tune lighting systems so public spaces are lit according to how people are moving around the city. In addition to making public spaces safer, it can save money, as lighting is only activated when people are around.

A town planner with access to traffic data—heaviest routes, public transport demand, peaks in certain areas—will be better supported in making credible development decisions or setting light phasing patterns.

One example: A small town was planning to install traffic lights but following a public outcry, was pressured into rethinking its approach. Analysis of the problem showed that 40% of the town's population was employed by Council, which led to unnecessary traffic issues. Now, rather than dispatching jobs from a depot, which required staff to travel from home to the depot where the traffic block was happening, jobs are dispatched from a mobile app which workers can access from home at the start of the day.

There are other ways[2] that technology can streamline a city's processes. For a water authority, it might mean deploying smart city technology to analyze sensor data from pumps, combining it with time-of-use charges from the local electrical utility, and saving money by running systems when power rates are low. Water managers can also use advanced analytics to track revenue streams, spot trends for slow customer payments or bad debt, and adapt rate structures to match.

Bylaw officers can map and analyze the timing, frequency, and locations of code enforcement incidents, then organise neighbourhood sweeps to reduce or prevent graffiti and noise.

Making the smart city a reality

Councils can guide their respective areas into a more prosperous, equitable, and safe future by setting a strong vision and priorities for evolution. With those guidelines in place, agents of change within the organisation have a clear pathway for the introduction of affordable, low-risk innovation. In a phased approach, modernisation can be proven and success will overcome the challenges.

Smart cities can do much more than save time and money. They can pave a pathway to customer-centric service turnaround, and drive innovations that empower individuals, teams, and departments to make a difference.

[1] https://cities.infrastructure.gov.au/smart-cities-plan
[2] https://www.smartcitiesdive.com/news/developing-a-21st-century-government-for-21st-century-citizens/517648/

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