

SMART STRATHFIELD ROADMAP

May 2019

Mayor's message

It is with great pleasure that Strathfield Council presents the Smart Strathfield Roadmap.

Council is committed to planning for the future to ensure our local government area continues to service the needs of our residents. Part of this commitment is transforming the Strathfield area into a Smart City.

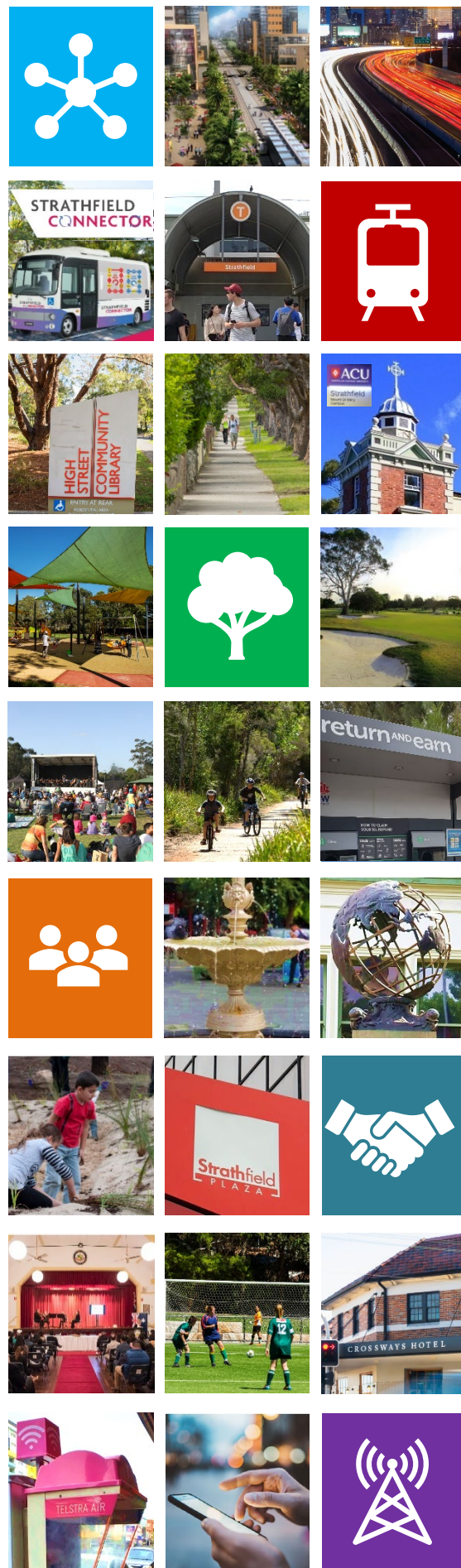
Smart Cities allow us to meet the pressures of the future through thoughtful planning and use of technology. Congestion, environmental pollution, climate change and growing populations are just some of the issues facing our community.

This report outlines how Council will focus on areas of Connection, Sustainability, and Economic Vitality to meet these issues and build a strong council area capable of meeting the challenges of the future.

This is an exciting time to be a part of Strathfield and I look forward to taking this journey with you.

Gulian Vaccari

Cr Gulian Vaccari
Mayor of Strathfield



WHAT IS A SMART CITY?

As the urbanisation intensifies, sustainable development challenges are increasingly being concentrated in cities.

Smart cities are essential if we are to respond effectively to the enormous pressures our community faces, including that of growing populations, congestion, environmental pollution and climate change.

The global smart city discourse points to a number of opportunities around Information Technology, clustering of creative minds, knowledge-based development and consolidation of social capital.

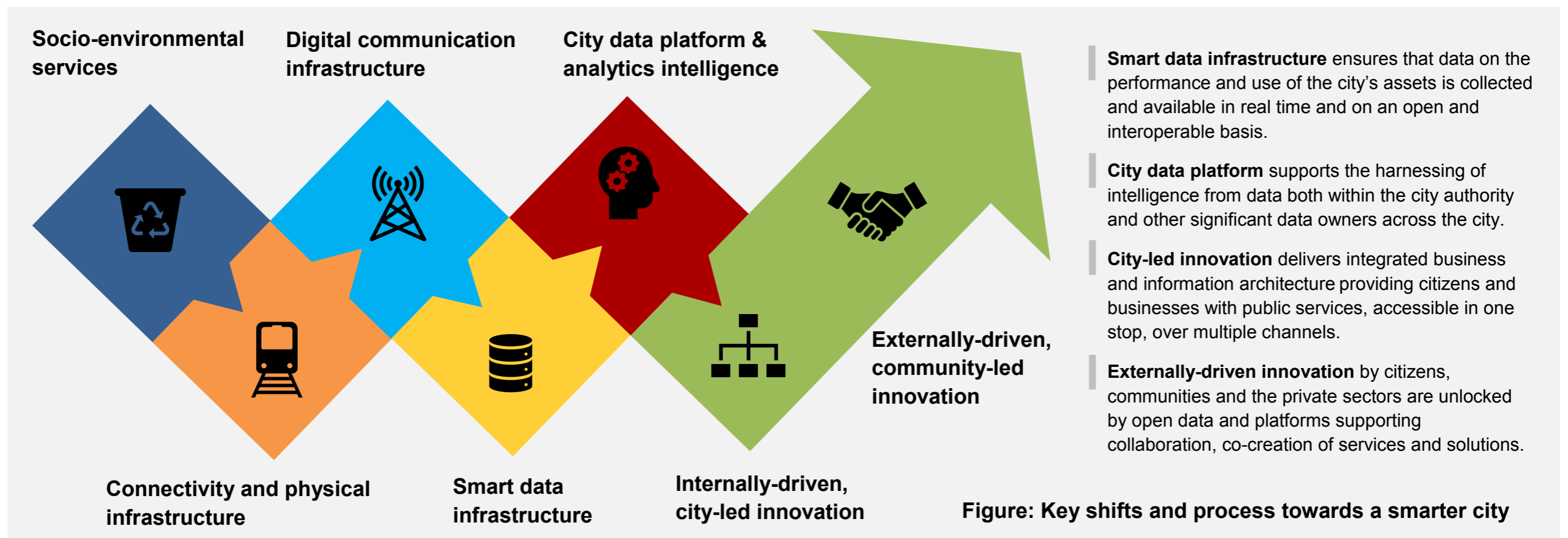
In general, the Smart City is underpinned by the use of technology and the ability to collect, transmit, manage and interpret data, and make it available, to enable both service providers and users to make better decisions.

The traditional operating model for our city has been based around functionally-oriented service providers that operate in vertical silos, which are often disconnected from user needs.

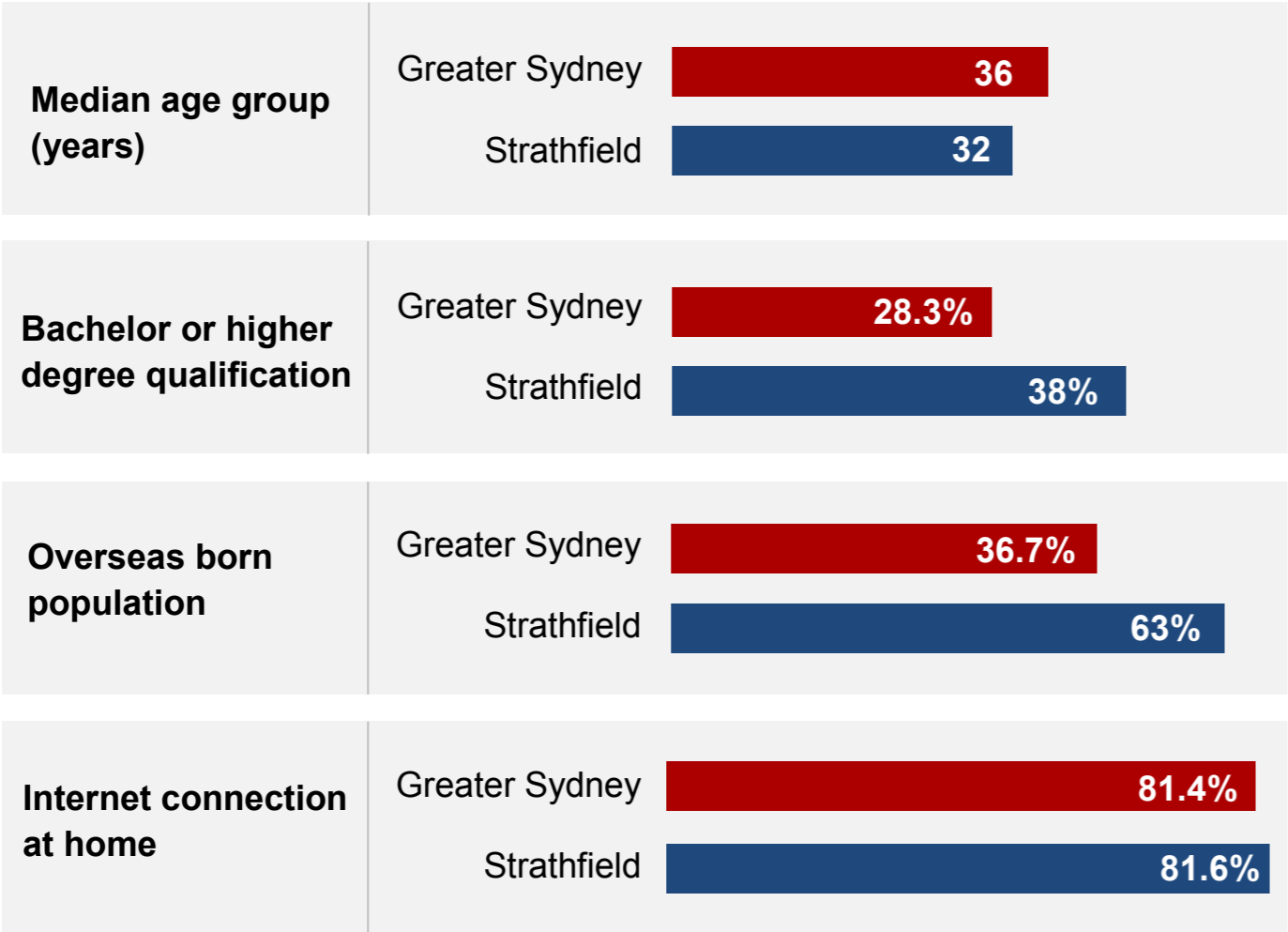
Smart cities are a mechanism to develop new operating models that drive innovation and collaboration across these vertical silos.

In Strathfield Council, we see

“ Smart City as a process instead of an end product; the process of building a community that uses all available intelligence, technology and quality processes to deliver for its citizens improved quality of life, sustainable and reliable services and leading edge infrastructure. ”



OUR COMMUNITIES DRIVING THE NEED FOR A SMART CITY



Note: Greater Sydney (Greater Capital City Statistical Area), as classified by the Australian Bureau of Statistics, is made up of 35 local councils and reflects the functional extent of the NSW capital.

Council is experiencing socio-economic challenges too. Seven percent of our population was unemployed in 2016 which is 1% higher than Greater Sydney.

We are also experiencing a high concentration of private renters (40%) that indicates the Council as a transient area attractive to young singles and couples who might be

less inclined to engage deeply in the community building processes.

Over 64% of the people in Strathfield spoke a language other than English at home in 2016 which is near double than Greater Sydney (35.8%), highlighting the likely limitations of communication building and participatory processes.

According to 2016 NSW Department of Planning estimates, a population of 60,200 people and 21,650 dwellings is projected by 2031 in the Strathfield Council area.

Council is one of the most diverse communities in Australia with 63% of our population born overseas. 4182 out of 5127 population added in the Council area between 2011 and 2016 are overseas born.

With international migration and diversification, we are experiencing a significant shift in age structure. Strathfield Council area had 23.1% population within the dominant age group of 25-34 in 2016 compared to 16.1% in Greater Sydney.

Strathfield is attracting not only younger but highly educated people. 38% of our population has achieved a Bachelor or higher degree in comparison to 28.3% in Greater Sydney in 2016. Between 2011 and 2016, the Council have added 3294 persons with a Bachelor or higher degree.

With an upsurge of younger and educated residents, the demand for internet has significantly increased in the Council area. A massive 81.6% of our households are connected to the internet thanks to high proficiency with smart technology.

These trends are unlocking opportunities for engaging our communities digitally. Data, digital information and ICT-aided services will now have faster absorption rate within our population.

This roadmap is our way of harnessing and leveraging the youthfulness of our community, knowledge and digital capabilities through technology and data to deliver innovative services and solutions, improve economic and job performance while bridging the barriers of language and culture and fostering a diverse and dynamic city.

PURPOSE OF THE SMART CITY ROADMAP

This Roadmap represents the beginning of a journey to become a Smart City Strathfield, which will evolve over time to incorporate new opportunities and changing technology and to reflect the challenges and opportunities ahead.

The purpose of the Smart City Roadmap is to:

- Recognise opportunities around smart technology to improve access and service delivery as prescribed in the Operational Plan 2018-2019 as part of the Community Strategic Plan;
- Provide a framework and assessment matrix to measure the alignment of our current and future projects with our smart city goals; and
- Accelerate and enable the delivery of smart outcomes across various sectors, through a truly integrated and collaborative approach.

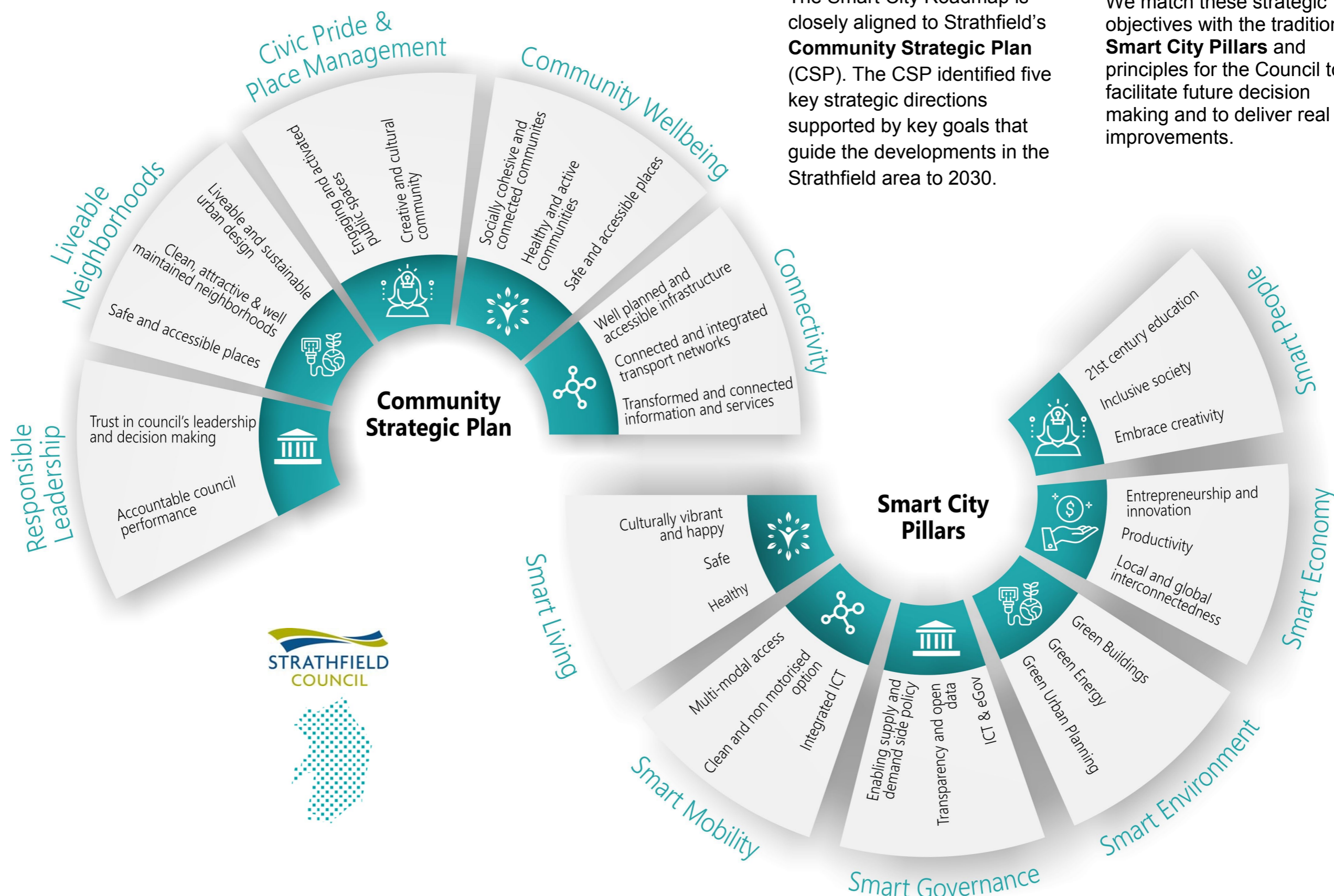
Strathfield enjoys unparalleled connectivity and we are part of a global environment that is digitally connected. This Roadmap projects us to a digitally-enabled future supporting citizen-focused service delivery and increasing capacity of existing infrastructure and services.

Smart Strathfield Roadmap will act as a guide for Council to engage with our diverse stakeholders and explore how a smart city can contribute to a more sustainable and liveable future.

Council envisions the launch of the roadmap as a stepping stone to further research, innovation and development of solutions aimed at meeting the needs of the people who live, work and visit Strathfield. To this end, we are collaborating with knowledge partners UNSW and Future Cities CRC—Australia's national research and innovation hub for the future of cities to ensure that the Council has access to the best of thinking in the field.



STRATEGIC ALIGNMENT



The Smart City Roadmap is closely aligned to Strathfield's **Community Strategic Plan** (CSP). The CSP identified five key strategic directions supported by key goals that guide the developments in the Strathfield area to 2030.

We match these strategic objectives with the traditional **Smart City Pillars** and principles for the Council to facilitate future decision making and to deliver real improvements.

SMART CITY VISION

The Strathfield Smart City vision aligns with the Community Strategic Plan to 2030 and aspires to use technology, data and intelligence to deliver smart solutions to transport, economic and sustainability challenges.

Through data, connectivity and platforms the Council will create a continuous feedback loop with citizens exploring how city infrastructure and services dynamically adapt to citizens' needs.

While we will remain committed to use technology to meet the user needs, we will also explore the following questions:

- What are the social problems technology can solve and how can the Council collaborate with the community groups in the process?
- How can it address our global and local environmental challenges?

"Strathfield is a culturally diverse and socially cohesive community with respect for its heritage and environment and proud of its well-connected transport, business and educational institutions".

Strathfield 2030
Community Strategic Plan

"Strathfield smart city will build a unified approach to technology, data and intelligence for the delivery of smart solutions to transport, economic and sustainability challenges facing our community".

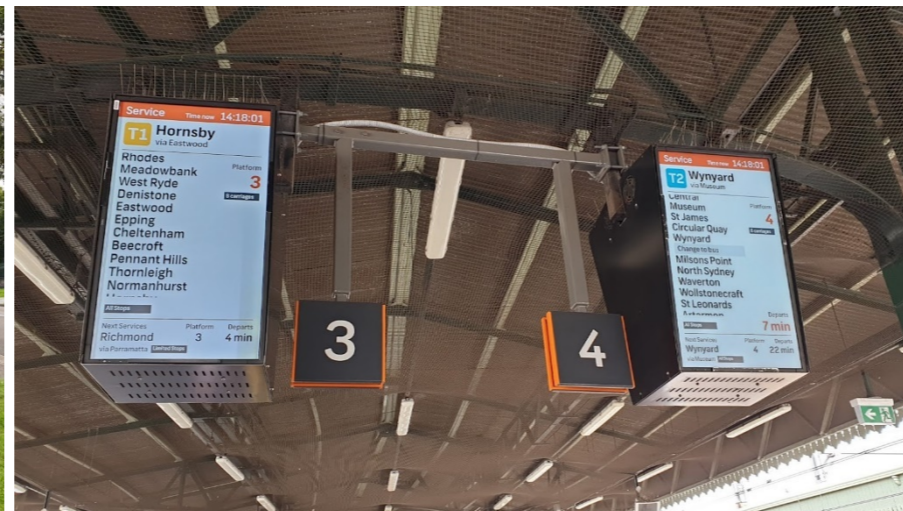
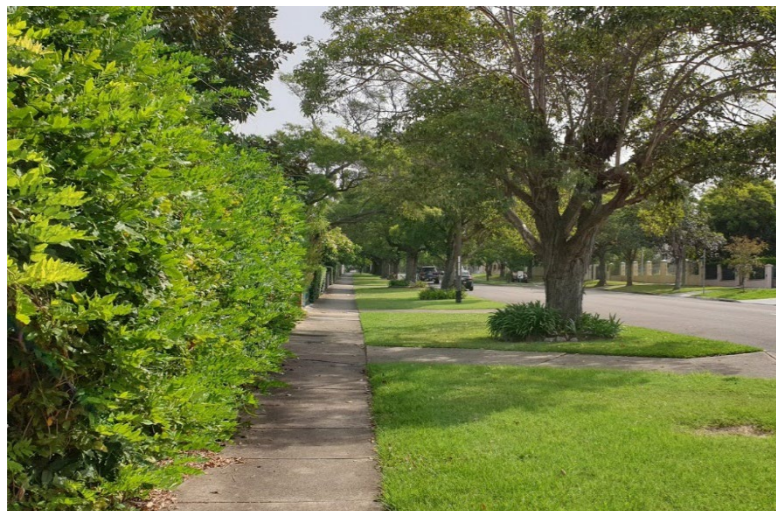
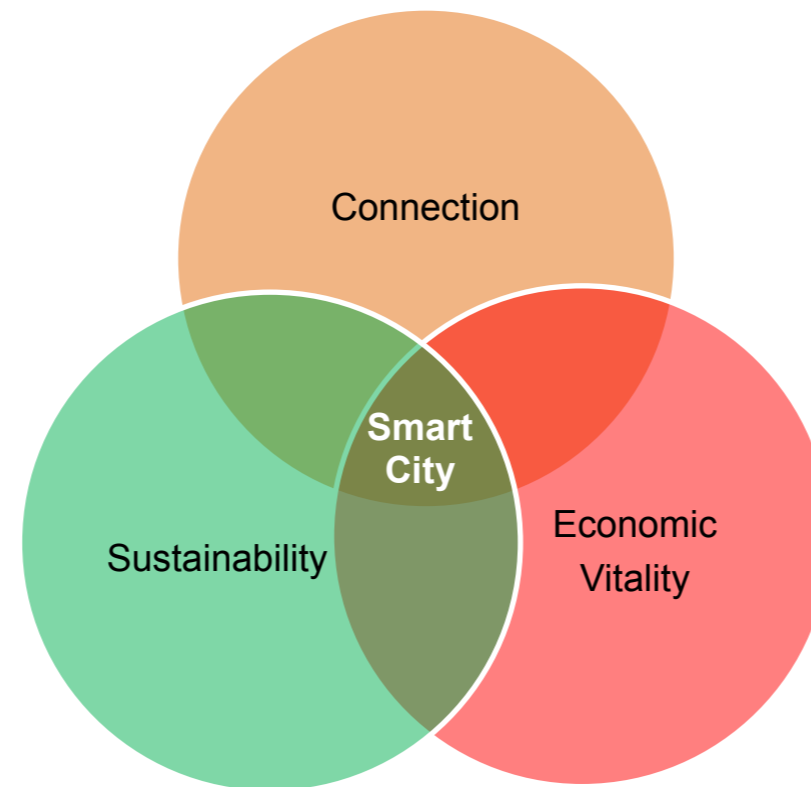
Strathfield Smart City
Roadmap 2019



THE OBJECTIVES OF THE SMART CITY STRATEGY

The fundamental declarations of the CSP and its convergence mapping with our smart city vision lead us to define our binding objectives of the Smart City Strategy in three heads:

- 1 Connection** - Strathfield will be a city with fast, reliable and integrated transport and digital networks that connect people to each other, to the information and services they need and to where they need to go.
- 2 Economic vitality** – We will deliver enabling infrastructure, robust internet, open data and business environment to create jobs and ensure economic stability of our region.
- 3 Sustainability** – We will continue investing in high-value green, social and cultural infrastructure to shape livable neighbourhoods, and ensure the wellbeing of our people.



ENABLERS OF OUR SMART CITY VISION AND OBJECTIVES



Data-driven operations

A Smart City Strathfield needs to holistically view and pull insights from data across the Council operations and beyond. We are building capacity within the Council to treat “Data as a Utility”, similar to transport, energy and water.

We will leverage affordable technologies (sensors and software’s), integrate them with our current and future infrastructure which will enable us to collect real-time information on essential services and operations.

A strong focus on smart data will allow us to measure our progress against stated community development goals and make informed and resilient decisions.

We will create mechanisms for cross-initiative and cross-department data sharing to optimising the services provided to the citizens. We will use open standards to make public data more accessible to local organisations and citizens affecting their business and daily lives.

In addition to optimising efficiencies internally, providing data-driven insights to citizens to increase the levels of transparency is a challenge Strathfield Council will make efforts to address.



Integrated digital platforms

We aspire to re-shape Strathfield’s Smart City governance model through digitally integrated platforms providing easy access to online services and information to our communities.

The Council is actively pursuing digitisation and automation of processes through the adoption of cutting-edge platforms allowing data assemblage and improved service delivery. We are building digital platforms to enable faster customer addressal and also provide an extensive digital inventory of our assets leading to reduced management costs and increase in the speed.

We will leverage the power of dashboards and other digital interfaces to rapidly disseminate vital information such as public events, health & safety advisories, transport disruptions and the quality and hygiene ratings of restaurants in the Council. Such platforms will enable dynamic engagement of our community on civic affairs.

We will migrate to a single platform and one Citizen App approach. This will enable all Council operations to be centralised for management and at the same time responsive and open to user needs, effectively using crowdsourced data mining strategy.



Partnerships

A hallmark of the creation of Smart City is the fostering of collaboration between various stakeholders. Council is determined to foster a culture of innovation through establishing creative partnerships with those organisation who shares our vision.

Through open data, digital platforms and a collaborative mindset we will unlock better ways for citizens and businesses to interact and co-create - capitalising on trends and changes in technology.

We will also put in place a more flexible and creative procurement solution to the fast-changing technology environment enabling our businesses to rapidly grow and innovate.

Such collaborative digital culture will enable startups of all kind to flourish in the City, and offer opportunities for Council to collaborate and partner in shaping Smart Strathfield.



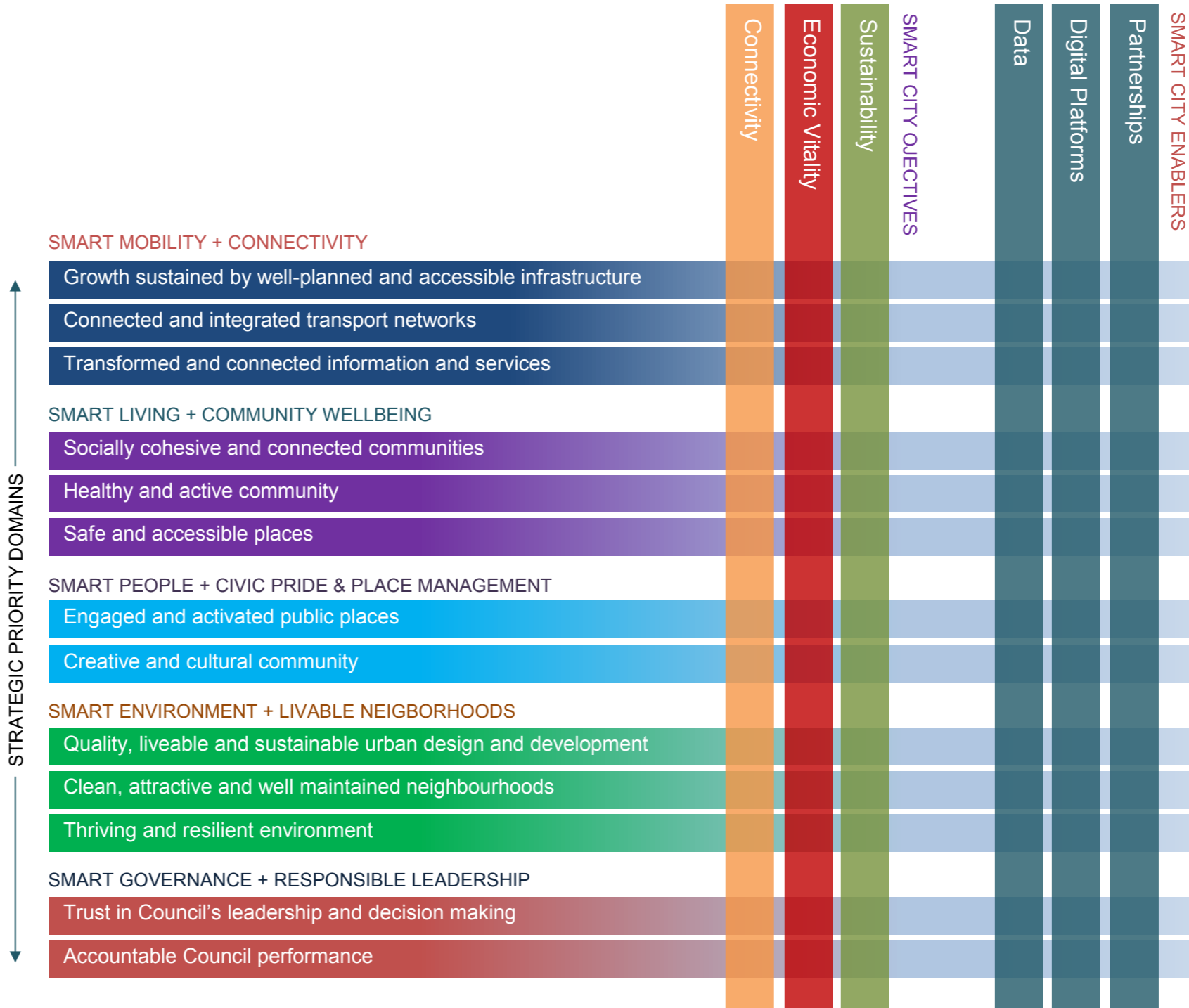
SMART CITY PROJECT ASSESSMENT FRAMEWORK

Our Roadmap establishes not only the goals but also how we will prioritise and measure outcomes and performance of our projects. We will employ rigorous vetting through data and suites of indicators to benchmark Council performance and provide a set of reliable evidence to support future policy directions.

The Strathfield Smart City program places a heavy emphasis on accountability and, to this end, is committed to measuring key metrics across all of our core strategic priorities. We hence provide this Smart City Project Assessment Framework that will be used to measure how our current and future smart projects link with the strategic priorities leveraging the enablers of data, digital platforms and partnerships.

Smart Strathfield metrics will enable the City to understand the quality of life for residents, realise the performance of services and operations the Council provides, and improve transparency for both data-driven decision-making and accountability to the public.

Defining the core strategic domains, and measuring progress against a set of indicators will not only help lay the foundation for a scalable, sustainable Smart Strathfield approach but also sustain our Smart City vision. By utilising the Smart City Framework to address the challenges we face, Strathfield can continue to grow to be the most attractive city for economic growth, environmental sustainability and citizen inclusion.



SMART INITIATIVES OF THE COUNCIL

We are currently implementing a range of smart initiatives engaging with data and digital technologies that will deliver long-term benefits to our communities. Some of our projects will have a city-wide impact while others will be area-based interventions in priority precincts.

Projects already underway:

Strathfield Connector

Council has initiated a landmark free community bus service providing Increased access for residents of Strathfield LGA to transit hubs and local destinations. The busses feature smart devices, sensors and cameras for real time data collection on user and driver behaviours for improved safety and reliability. The project will lead to improved last mile connectivity, reduced reliance on cars and alleviate congestion and pollution on our roads.

Strathfield Connector project is inspired by our efforts to achieve the strategic goals around connectivity, smart mobility and smart environment. It demonstrates our continued efforts towards building infrastructure and visions outlining how the Strathfield community can better connect and integrate with the broader region.

Strathfield City Dashboard

Developed by the Council with support from the City Futures Research Centre, UNSW, Strathfield City Dashboard provides a single glance reference point for our residents on key issues such as real-time weather conditions, air quality, transport disruptions, Council events and so on.

The project supports our strategic priorities on building integrated digital platforms to realise smart governance and responsible leadership goals.

Civica CES

The Council is implementing Civica CES to improve data capture, retention and conduct better analysis of civic functions enabling ease of access for residents to transact business with Council. The solution will interface with other non-government data systems to allow access to broader data sets and thereby enabling creative partnerships.

Public WiFi Solution

Strathfield Council provides free wireless internet at key locations and publicly accessible facilities for use by residents and visitors. The public WiFi is our way of building a more connected and engaged community.



Future projects:



Mobile Platform with an App

To ensure that information and services are easily accessible to our digitally connected citizens, we will develop a mobile platform with an App to promote greater interactivity between the Council and its constituents.

The community-focused mobile platform will integrate and provide a number of services, including tourism and city guide, sports and Council facility reservations, parking, community event listing, public transport information, Council news and notifications and business transactions with the Council.



Smart Customer Service

Strathfield Council is actively working with the State agencies to develop a comprehensive digital inventory of LGA assets as well as enable electronic submission and approval of Development Applications. The transition from physical to virtual customer service will lead to an increase in the speed of delivery.



Sensor-based Waste Management

We will use RFID sensors to collect solid waste data to enhance existing capacity of fleets. Such technology will help us better target waste education, especially for areas where higher rates of waste diversion exist.



Automated Smart Water Data

The Council will work together with the Sydney Water to develop an Open Data Agreement to share real-time data on water usage and leaks collected from smart water meters and sensors that will result in cost and resource savings and improved water and environmental efficiencies.



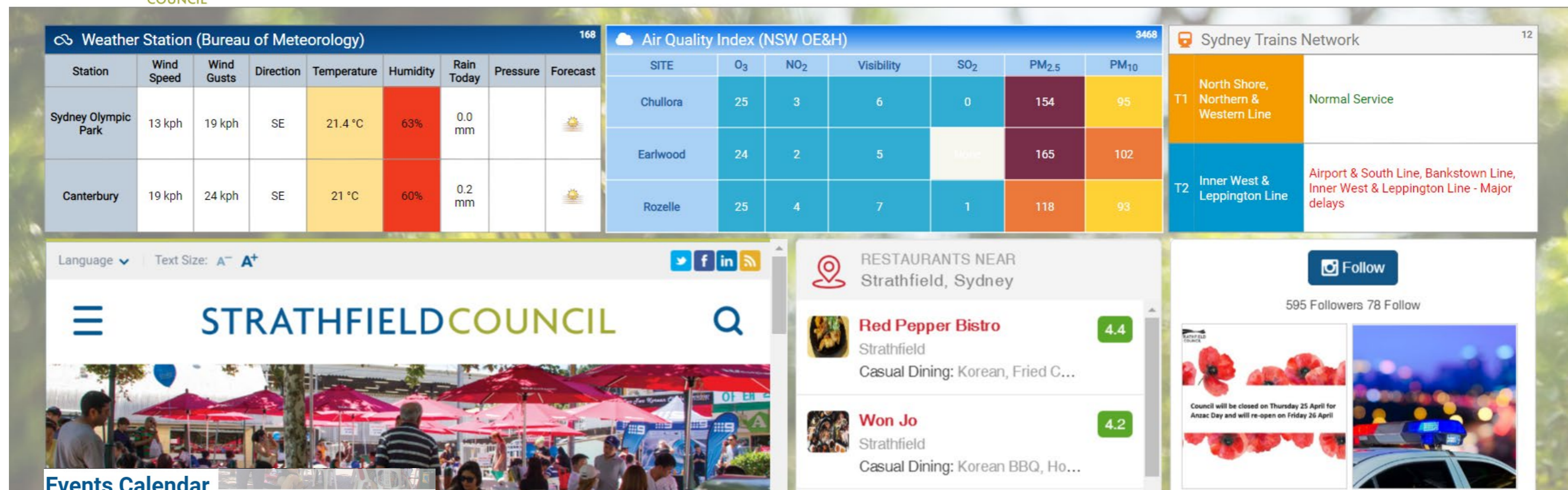
Smart Parking

We will use technology for real-time data collection on parking that will support better management of available parking lots, less overstay and cruising to locate parking.



City Dashboard

Monday 29 April 2:47:02 pm



Flagship Smart Precincts and Urban Renewal Projects

Besides the development of physical and digital infrastructure, the Council is also shaping smart, green, connected and active precincts for our community by adopting an urban renewal approach. A few examples of such precincts and how Strathfield has already begun the journey towards becoming a Smart City is illustrated here.

Strathfield District Park

The heritage Hudson Park precinct is being transformed into a flagship Strathfield District Park opening up access for a great majority of our communities to a superior recreational space within walking distance.

The project will significantly increase tree canopy cover for improved carbon footprint returning green infrastructure benefits to our community while addressing urban heat impacts.

The flourishing green area will be a fully connected park with WiFi, environmental and smart bin sensors and smart parking and digital wayfinding solutions. The interactive play structures and materials will blend the physical landscape with digital.

Powells Creek Naturalisation

The Powells Creek concrete channels that run through Strathfield are being transformed into natural waterways making the surrounding community a better place to live, interact and enjoy.

The project will naturalise the concrete banks with gently sloped sandstone blocks and native vegetation that will improve the environment and ecological value of Powells Creek significantly. The banks of the creek will be renewed with shared paths, cycleways, trails, boardwalks, informal seating and recreation spaces, sports courts, dog off-leash area, BBQ-picnic area and community gardening facilities that will maximise public open space especially given the forecast population densification in the region.

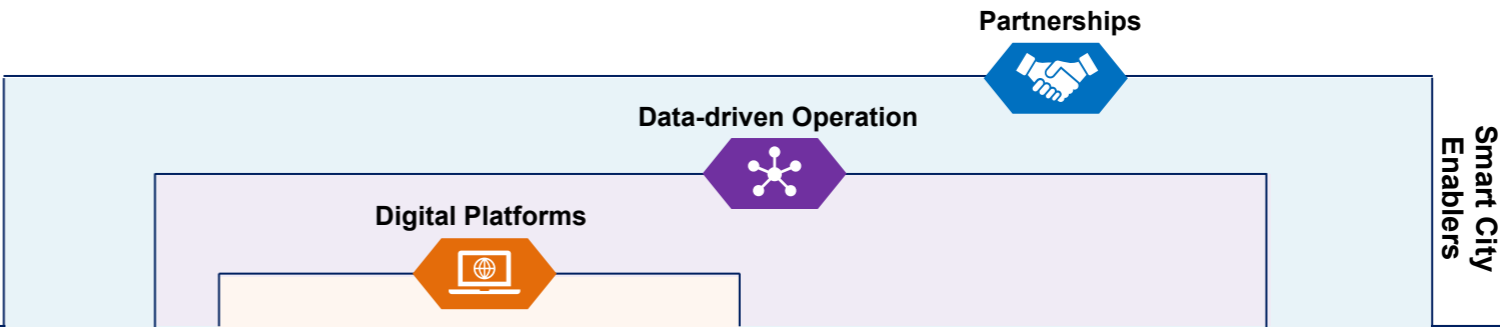
Transformation of this water landscape will not only activate the local community but connect Powells Creek to wider open space network, green links and trails. The multi-stakeholder initiative brings together Sydney Water, Strathfield and Canada Bay Councils, the Powells Creek neighbouring community and local small businesses inspiring and showcasing the way forward for smart city collaboration.



ALIGNMENT OF SMART CITY PROJECTS WITH STRATEGIC PRIORITIES

Each of our smart city projects is laid out in synergy with the community strategic priorities of CSP 2030. The diagram below maps out those convergence points of the smart infrastructure and precinct projects with the binding CSP objectives and strategic domains.

We also identified how the smart projects harness the enablers of digital platforms, data-driven operation and partnerships that we believe is so very critical to realise Strathfield's Smart City aspirations.



Strategic Domains	Strategic Objectives	Strathfield Connector	City Dashboard	Civica CES	Public WiFi	Mobile App	Smart Customer Service	Strathfield District Park	Smart Waste	Smart Water	Smart Parking	Powells Creek Project
CONNECTIVITY	Growth sustained by well-planned and accessible infrastructure											
	Connected and integrated transport networks											
	Transformed and connected information and services											
COMMUNITY WELLBEING	Socially cohesive and connected communities											
	Healthy and active community											
	Safe and accessible places											
CIVIC PRIDE AND PLACE MANAGEMENT	Engaged and activated public places											
	Creative and cultural community											
LIVABLE NEIGHBORHOODS	Quality, liveable and sustainable urban design and development											
	Clean, attractive and well maintained neighbourhoods											
	Thriving and resilient environment											
RESPONSIBLE LEADERSHIP	Trust in Council's leadership and decision making											
	Accountable Council performance											

BENEFIT REALISATION STRATEGY FROM SMART CITY PROJECTS

Through this Smart Strathfield Roadmap, we establish a framework for tracking smart city benefits and how they support the Council and Strathfield community to achieve local and global development goals. The Strategy as illustrated in the diagram systematically places the smart city projects within the three smart city objectives defined in this document. It then assesses the kind of benefits that flow out of the smart projects as a measure to recognise the key drivers of Strathfield Smart City.

Smart city projects addressing sustainability shows potential benefits around lessening environmental pollution, increasing green cover and public space, restoring ecosystem services and better compliance with municipal waste. Such projects intelligently address the emerging issues of urban densification, climate change, our poor waste diversion records and showcases an approach to use technology and placemaking strategies to become better global environmental citizens.

Projects that are focusing on building Connection and ensuring Economic Vitality demonstrates our awareness of the 21st Century technological advances and the value we can generate from using big data and digital platforms to deliver faster, better and affordable services to our community. The key drivers here are efficiency and cost-effectiveness in smart city operations.



THE WAY FORWARD

An effective smart city strategy is likely to take a phased and incremental approach, providing a framework for an organic and need-based process of change to deliver the vision over time. Strathfield's smart city journey is conceived in five main phases, as discussed here:



Phase 1: PLAN



In the ongoing Planning phase, we establish the objectives and vision that the Council seek to work towards in delivering the smart city goals. This Roadmap sets the tone and direction to transforming the city's operating model and mapping of project benefits through a standard operating procedure.

We articulate our plans at this phase to digitally map our assets, and swiftly move towards a data and technology driven society. The priority domains and actions identified through this document illustrate where we are and where we want to go.

Phase 2: INITIATE



In this first phase of delivery, we are focusing on quick wins to demonstrate progress and early benefits, using moderate to low technology expenditure. Such pilot projects will accelerate belief and confidence across city stakeholders.

We will further embed the roadmap in governance structures and processes to inform all future investments.

----- where we are now..

Phase 3: DELIVER



Some of the more significant investments will start coming on stream in this phase building on the experience of early applications. Full-fledged digital platforms to take effect supporting smart delivery of public services and community-led innovation with city data.

Phase 4: CONSOLIDATE



An emphasis on driving take-up of the initial smart city services and applications, extracting value from smart data and user feedback, and using those to specify changes to the business and technology architectures to be undertaken in this phase to support longer term, strategic solutions.

Phase 5: TRANSFORM



A full spectrum of smart city projects will take effect at this phase with time-tested, risk-free infrastructure investments that will guarantee future agility as business and customer priorities change. Smart Strathfield will continue to evolve beyond.

----- where we want to go..



Acknowledgements

Strathfield Council would like to show respect and acknowledge the Wangal people, the Traditional Custodians of the land on which the Strathfield area is located. We pay respect to Elders past, present and emerging.

Smart Strathfield Roadmap has been authorised by Strathfield Council and City Futures Research Centre at the University of New South Wales.

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