



# RANDWICK CITY COUNCIL

SMART CITY STRATEGY  
ENGAGEMENT REPORT

FINAL 30 June 2018

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## Executive Summary

On 27 March 2018, Mayor Lindsay Shurey announced that Council would be developing a dedicated Smart City Strategy for the City of Randwick.

This Strategy was to be co-developed with community and key stakeholders based on a range of face-to-face and online engagement sessions during April and May 2018.

Council commissioned Delos Delta to design and facilitate this engagement.

This Engagement Report presents a review of what we heard during community and stakeholder consultation, key insights, and recommendations.

The dual purpose of this Report is to share the results of this engagement process, and to shape and inform Randwick's Smart City Strategy.

Key recommendations of this Report include:

- Leveraging smart city technology to focus on community priorities, including sustainability
- Promoting the principles of 'digital democracy' to facilitate community participation and empowerment
- Continuing to talk to the community about digital security and privacy, and upholding best-practice standards of protection
- Building innovation capability and pathways to catalyse and accelerate smart city action
- Smart planning and development: working with community and developers to better integrate digital and physical elements of Randwick
- Taking advantage of Randwick's existing strengths, including our education and health sectors, to support smart city achievement
- Embedding smart governance, capacity-building and cultural development to align with smart city aspirations
- Investing in complementary reforms to regulations, procurement practices and business processes to remove unnecessary barriers
- Developing Council budget processes to encompass new smart financing models
- Increasing the collection and utilisation of big data, to encourage innovation, better decision making, and improved performance management
- Prioritising smart city effort and investment
- Encouraging smart city partnerships and collaboration

## 1. Introduction

Randwick City Council is committed to leadership in innovation, deployment of new technology for community benefit, and more intelligent management of city assets and services.

This leadership has been demonstrated by a range of projects and initiatives, including:

- Release of a Digital Strategy to build Council's IT capacity and deliver smarter citizen services
- The Integrated Management of Works digital platform, which helps optimises front-line Council activities in real time
- Ongoing modernisation of local libraries to establish smart community hubs
- Improvements in online community engagement

Building on this foundation, Council is now developing a dedicated Smart City Strategy to accelerate and coordinate smart city action and investment.

Delos Delta was engaged by Council to design and deliver stakeholder engagement for this Strategy. This Report presents the process and outcomes of this engagement.

## 2. Engagement Approach

Delos Delta and Council designed an engagement approach that combined face-to-face and online engagement, covering community, Council staff, and other stakeholders.

This included:

1. A number of consultation workshops with Council staff.
2. A community workshop.
3. Short online surveys, one for the community, and one for staff. The full surveys are included at **Appendix 1**.
4. A Mayor's Smart City Roundtable (31 May 2018) with a number of key stakeholders.

Each of these engagement elements is addressed in this Report, presenting both what we heard, and a summary of key insights.

### 3. Staff Workshops

Delos Delta facilitated four Smart City Workshops with Council staff, aiming to leverage their expertise/experience, and build awareness and support for this initiative across Council.

*Picture 1: Staff Engagement Session*



#### **What we heard**

To kick-off the workshops, staff first discussed and identified possible objectives for Randwick's Smart City Strategy. These included:

- Promoting innovation
  - Making the most of our data
  - Changing perceptions of Randwick – moving with the times
  - Raising awareness about smart technology
  - Driving economic development
- Enhancing citizen focus
  - Improving liveability
  - Serving our residents
  - Increasing customer satisfaction
  - Promoting community empowerment and participation
  - Enhancing the Randwick experience (for citizens and visitors)
- Improving transport and mobility
  - Reducing congestion

- Increasing mobility options
- Improving accessibility
- Increasing efficiency
  - Saving time and cost
  - Improving reliability and efficiency
  - Flexibility and resilience
- Strengthening governance
  - Better decision making – effective, integrated, transparent
  - Better management of infrastructure
  - Coordinating/integrating planning and development

Because the digital world is rapidly evolving, staff also workshopped smart city principles to guide intent and action as circumstances change. These included:

- Social inclusion, equity and access
- Partnership and collaboration – building strong relationships
- Open data, sharing information
- Flexibility/adaptability
- Integrity
- Lead by example
- People first – customer focus
- Progress and evolution
- Leverage existing Council values
- Transparency – privacy / security
- Commitment to innovation
- Managing risk
- Trust and accountability

Staff identified a number of potential smart city barriers/challenges and strategies to address, as per the table below.

*Table 1: Smart City Barriers and Solutions*

Potential Barrier/Challenges	How we might address
Red tape	Integrated smart city and red tape reduction effort
Political support	Regular engagement with Council, and with State/Federal local members
Risk aversion	Use of pilot projects to minimise exposure and build expertise
Community confidence	Embed security and privacy standards
Lack of resources	Review existing services and capital budgets to integrate smart city dimensions
Governance	Establish supportive governance as part of the Smart City Strategy

To harness current momentum and efforts, staff identified a range of existing initiatives that could form a launching pad for the new Smart City Strategy. These included:

- Citizen focus
  - Online services (e.g. application forms)
  - Tracking service requests
  - Surveys on iPads
  - Digital community engagement
- Infrastructure
  - Building projects (e.g. embed smart technology in design)
  - Public open space design
  - Sport facilities upgrades
  - Smart libraries
  - Signage
  - IT upgrades
- Local services

- Wi-Fi in public spaces and Council buildings
- Bike share programs
- Venue hire
- Food scrap trial
- Sustainability
  - Irrigation
  - Tree management
  - Weed management
  - Integrated Management of Works (IMOWS) digital system
- Collaboration
  - Working with existing business, community and special interest forums/groups
  - Relationships with the University and Hospital
  - Leadership programs and training sessions
- Governance and planning
  - Integrate Community Plan with Smart City Strategy
  - Town centre strategies
  - Parking strategy
  - GIS model

Staff identified a range of new smart city initiatives for further consideration, including:

- Sustainability
  - Smart bins, smart waste management
  - Smart energy grids
  - Smart irrigation
  - Renewable energy projects
  - Digital tree canopy mapping and management
- Transport and mobility
  - Smart parking
  - Real time traffic monitoring/reporting, and smart traffic light signalling

- Car pooling/sharing (for staff and the public) supported by digital technology
- AV trials
- Innovation
  - Open data initiatives
  - Enhanced data collection and utilisation, especially by improved performance management frameworks
  - 3D model of the city for development processes and community consultation
  - Smart working policies and innovation hubs (for community, Council, innovators, start-ups, and academia)
  - Digital reform of internal processes and administration
- Local services
  - Enhanced wireless connectivity – including IoT
  - More Wi-Fi access points (as well as no Wi-Fi zones)
  - Smart street-lighting
  - Integrated Management of Works (IMOWS) digital system
  - Smart beach – e.g. real time signs with UV levels, digital shark monitoring
  - Creating online programs (apps) that integrate maps, activities, services and amenity to curate and showcase the City (e.g. events, water re-fill stations, toilets, tourist attractions, bike paths)
  - Randwick app upgrade
  - Remote management of venues
  - Digital by default – no paper forms
- Community and citizen focus
  - Smart community engagement – two way communication that is fast, safe, inclusive and effective
  - VR tools – e.g. to support DA consultation
  - Single resident identify, and CRM
  - Digital for tourism (e.g. self guided tours)
  - Use of chat-bots

To drive effective implementation, staff discussed a range of strategies including:

- Policies and management

- Develop a clear narrative and communication plan
- Align the Strategy and Action Plan with job descriptions and performance plans
- Add smart city to Council's values (ICARE)
- Changing working policies and practices (i.e. move to smart/flexible/remote working)
- Business process reforms and red tape reduction (e.g. procurement)
- Integrate smart city dimensions into all projects and services
- Delivery methods and principles
  - Leveraging existing technology (like Facebook and Google) rather than 'reinvent the wheel'
  - Enhanced use of data visualisation
  - Increasing the availability of real time data
  - Sharing knowledge
  - Build trust and credibility
  - Test, pilot, assess and scale
  - Action oriented – do something!
  - Careful phasing of projects
- Governance and operations
  - Sound/official governance and leadership
  - Clear roles and responsibilities
  - Go for some quick wins to build support and momentum
  - Smart City Champions across Council
  - Appropriate resourcing
- Collaboration
  - Cross-functional teams on projects
  - Across-council collaboration
  - Public private partnerships, such as private businesses allowing public access to their assets (like toilets)
  - Leverage of 'digital democracy'
  - Empowering the local community

*Picture 2: Staff workshopping*



### **Key insights**

Randwick City Council staff engaged in this discussion with great enthusiasm and positivity, sharing their many innovations with pride, and affirming their commitment to smart tech that delivers local benefit.

Key themes of discussion included promoting innovation, embedding smart technology in all services and infrastructure, enhancing citizen focus and participation, strengthening collaboration, and increasing efficiency.

Staff identified a range of possible smart technology barriers and constraints (such as red tape, and risk aversion), and emphasised the importance of addressing these issues in the Strategy.

Council have already planned and delivered a range of smart, innovative projects. Staff saw this work as a sound foundation upon which to launch expanded, enhanced, and new smart city initiatives.

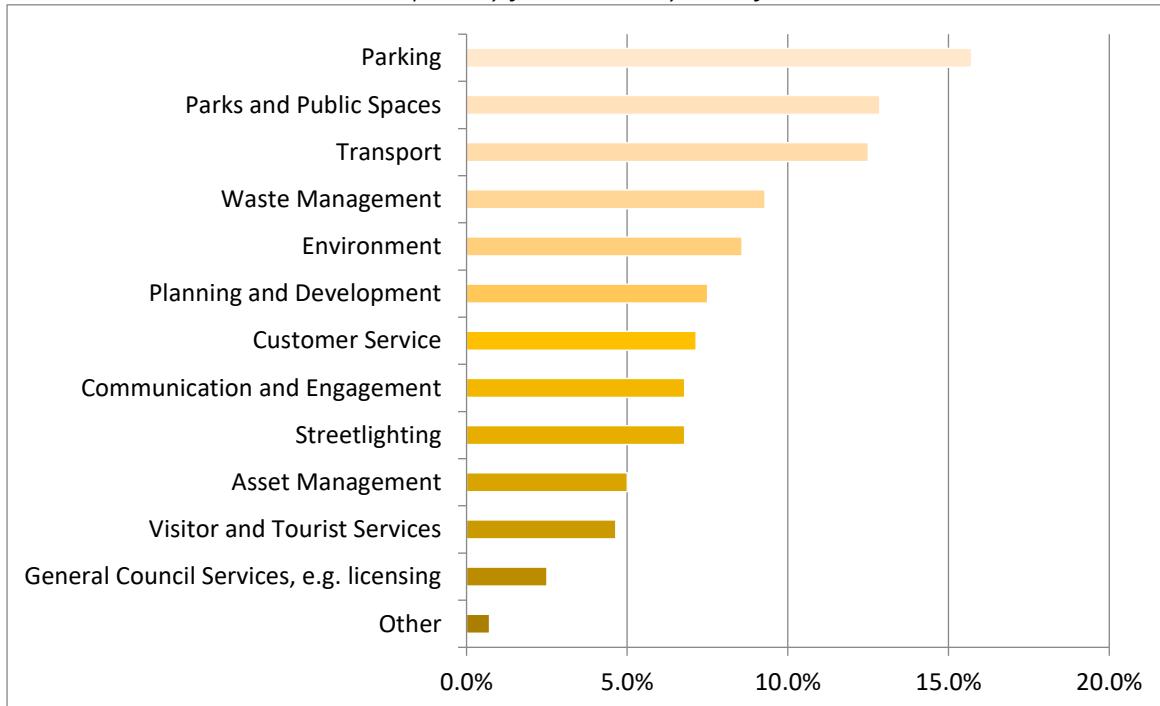
To ensure the success of the Strategy, council staff stressed the need for a strong implementation plan, integrated smart city planning and collaboration across Council, and supporting policies, governance, and innovation pathways.

#### 4. Staff Engagement – Online Survey

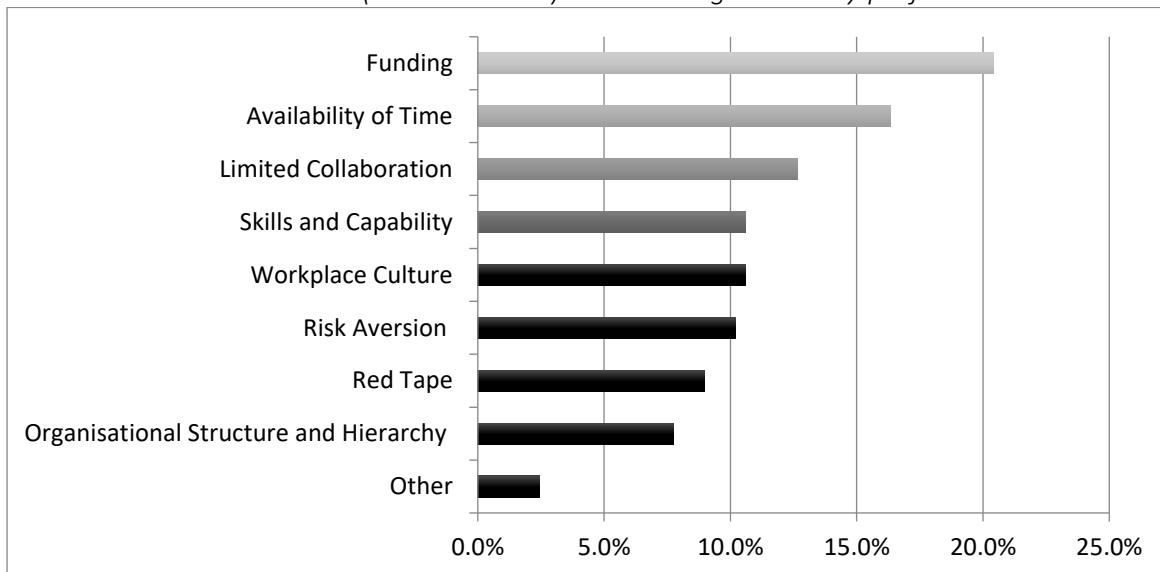
There were 102 responses to the online staff survey, 57% from City Services, 26% from City Planning, 8% from Governance and Financial Services and 9% from the Office of the General Manager.

##### **Survey Results**

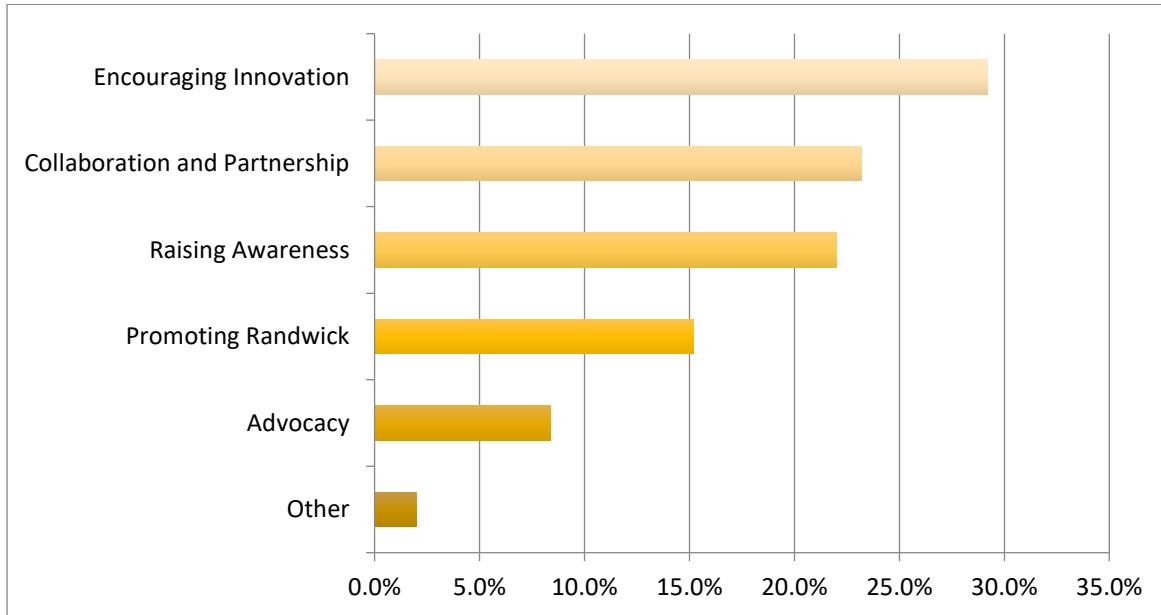
*What local services should be a priority for smart city transformation?*



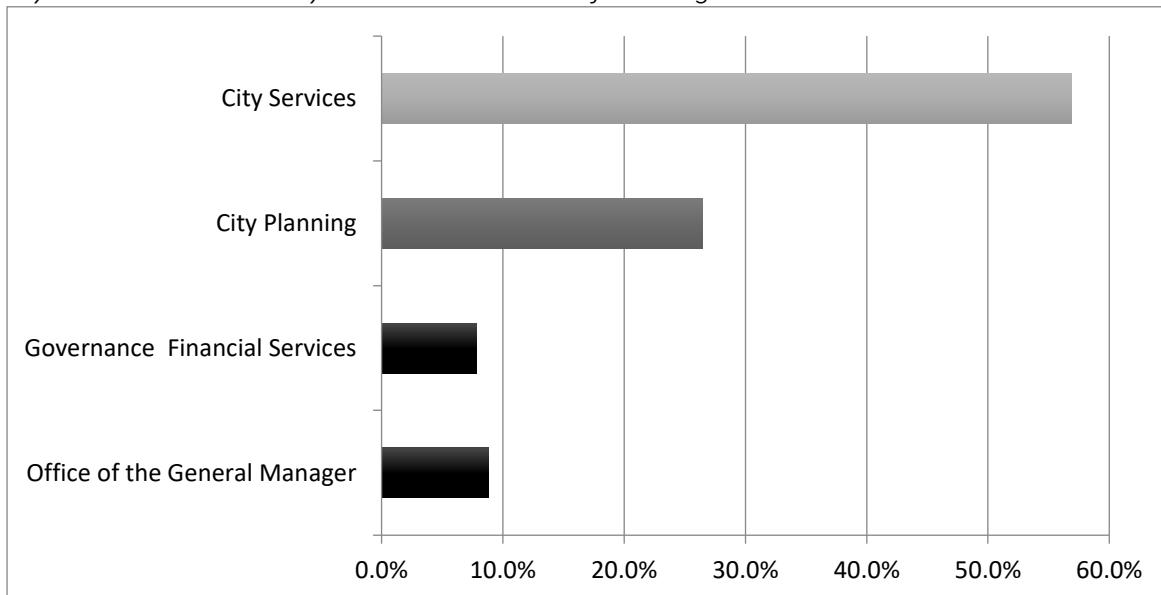
*What are the main barriers (within Council) to delivering smart city projects and outcomes?*



*Beyond leading specific projects, how should Council help drive smart city action?*



*My role at Randwick City Council is within the following area:*



### **My great idea for Council to drive smart city action and outcomes is ...**

Council staff shared a host of insightful and innovative smart city ideas and initiatives, a selection of which are presented below:

- Sustainability
  - Improve waste management using smart technology
  - Transition to 100% renewable energy
  - Smart lighting, including motion detection and other smart functionality
  - Smart weather stations at the beaches, and digital signs
- Transport and mobility
  - Shared electric bikes
  - Promote car-pooling and car sharing
  - Smart parking
  - Smart technology to improve accessibility for people with disabilities
- Local services and assets
  - Expand free public Wi-Fi
  - Invest in smart city infrastructure and systems
  - Sensors on lawn mowers to improve service efficiency and lawn health
  - Use our public libraries as smart city hubs and training centres
  - Use sensors/beacons to improve the operation and maintenance of assets
  - Create a smarter Council work-places, using new design and technology
  - Interactive touch screens in public places
  - Improve online services – e.g. smart venue booking/operation, digital payments etc.
- Collaboration
  - Invest in Council culture to become more proactive and collaborative
  - Faster, smarter more effective community engagement and communication
  - Promote collaboration across Council (and with other Councils)
  - Focus on ‘troublesome’ issues, and apply new thinking and smart technology to solve
  - Focus on digital democracy and digital literacy

- Planning and governance
  - Modernise our planning processes
  - Smart governance systems, including an emphasis on smart leadership, awareness, coordination and processes
  - 3D Digital City Model to improve planning and development
  - Create processes and governance for projects to integrate smart city thinking
  - Modernise policies and standards
- Innovation
  - Smart technology to drive service efficiency, communicate service availability, and share service locations
  - Use drones to improve local services (e.g. investigating resident reports)
  - Mash up our data to generate new insights and intelligence
  - Use big data to guide the capital program
  - Use the Community Centre as a site for testing/trialling new technology

### **Other Staff comments, views and feedback**

Additional ideas and input shared by staff included:

- Put people first
- Reduce red tape and move to paperless processes
- Aim for accessible, user-friendly technology, not tech for the sake of tech
- Establish platforms and incentives to encourage innovation
- Ensure new technology is used by providing training and education
- Increased communication between Council departments

### **Selected quotes from the survey**

- “[Council should consider] using solar and motion sensor lighting technology for pathways in parks, reserves and coastal walkways. This will save cost, reduce carbon emission and reduce intrusive lighting problem.”
- “[We should] invest money into smart city infrastructure and systems. This includes smart street furniture that would tell council when repairs are needed and smart bins to tell when they need to be emptied. This senior technology will reduce the

amount of people calling in to complain about these issues as well as make council more proactive and reactive with the issues that occur often.”

- “Public libraries are often the physical manifestation of a city's ambition to be a smart city. They provide an architectural focal point and engaging experiences that help create a strong sense of community”
- “We have some 3D models for small parts of the city. If these models were fully developed and extended they could be used by both staff and the community to better understand matters such as strategic planning, development assessment and flooding impacts.”
- “Being a forward thinking organisation, there should be further development with reducing red tape for customers where possible, improving response times.”
- “Council should aim to move towards a paperless environment. The depot's iPad work order system is a great example of utilising new technology to help us improve our productivity while reducing our environmental footprint.”

### **Key insights**

Consistent with community feedback, Council staff identified sustainability, the environment and transport as key objects of smart city transformation.

Of the various barriers to smart city implementation, constraints of funding, time and collaboration were perceived as the most significant by staff.

Recognising that Council alone cannot deliver every element of a smart city, staff indicated that Council should also encourage innovation, promote partnership/collaboration and raise awareness of smart city possibilities.

## 5. Community Workshop

### What we heard

Possible smart city priorities discussed at the workshop included:

- Sustainability
  - Smart waste management, to save cost and improve sustainability
  - Smart management of green/open space
  - Smart biodiversity management
- Planning and development
  - Smart management of development
  - Intelligent DA processes and decision-making including technology that can assess the cumulative impact of a new development on services, congestion and infrastructure etc.
  - Using smart technology to respond to demographic change
- Innovation and collaboration
  - Smart working (e.g. remote, flexible and tele-working)
  - Living Lab partnerships, especially with UNSW
  - Smart community engagement/communication leveraging digital technology
  - Integration and collaboration with local institutions – e.g. universities and hospitals
- Local services
  - Useful, real time public transport information – how far away, how full, how long is the trip?
  - Smart parking
  - Smart street lighting
  - Smart mobility including active transport corridors and autonomous vehicles
  - Way-finding for tourists and locals – get the most out of our City
  - Smart tech for pet registration and management
  - Online notifications for sporting grounds – open/closed etc.

Workshop attendees also identified a number of potential barriers, including:

- Resistance to change in the community
- Governance – the ability to coordinate with their councils
- Protecting privacy while also getting value from data
- Getting a level of community engagement that is wide, deep and regular
- The culture and capacity of Council itself
- How to be smart in design and delivery, including use of iterative budgeting, implementation and evaluation
- The risk of operating in the ‘micro world’ where ‘narrow perspectives’ guide debate
- The availability and usefulness of real-time data
- The ongoing success of Randwick creates more pressure (on planning, services and infrastructure)

Attendees discussed who might play a role in delivering the Smart City Strategy, identifying:

- Universities including students and staff
- Schools
- Business partnerships
- Collaboration with hospitals
- Residents themselves as designers and innovators
- Developers
- Transport agencies

‘Big ideas’ discussed at the workshop included:

- The opportunity for Council to be leader in Greater Sydney, especially in sustainability
- Creating a smart hub - connecting Council, community, universities and start-ups - to drive innovation and economic diversity
- Embedding ‘access-points’ in the smart city to promote digital connectivity and inclusion for everyone

- Using digital technology to enhance responsiveness and flexibility in meeting the changing needs of the community
- Online forums/mechanisms to encourage community participation and capture great ideas
- Improved tourism outcomes, both amenity and experience, as well as management and sustainability
- Integration and cooperation with other councils and agencies

### **Key insights**

The community were very supportive of the Smart City Strategy, and the use of smart technology to enhance liveability and address local priorities.

Sustainability was a recurring theme of the community workshop – participants were keen to see technology used to promote environmental management, biodiversity, waste management, and green-spaces.

Randwick's local institutions, especially the universities and hospital, were identified as a smart city competitive advantage, which should be highlighted and leveraged in the Strategy.

The idea of establishing a smart/innovation hub for Randwick, with associated living lab dimensions, was discussed at length with very positive reception.

The risks and challenges of over-development/bad development were common concerns, and the community saw great opportunity to better monitor and address these issues with digital technology and smart services.

The community saw multi-lateral governance and coordination as a priority for effective smart city action, and encouraged collaboration across council areas and with the NSW Government.

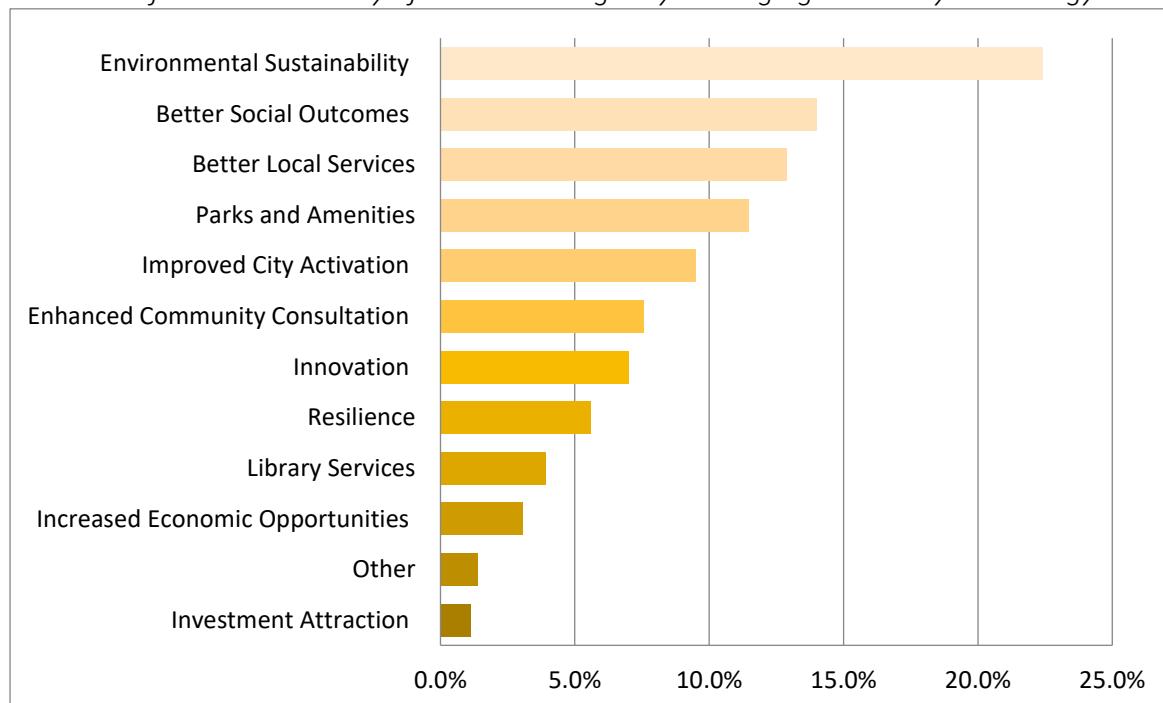
Privacy and security was emphasised by the group as a fundamental principle of smart city progress - an imperative to secure community trust and confidence.

## 6. Community Engagement – Online Surveys

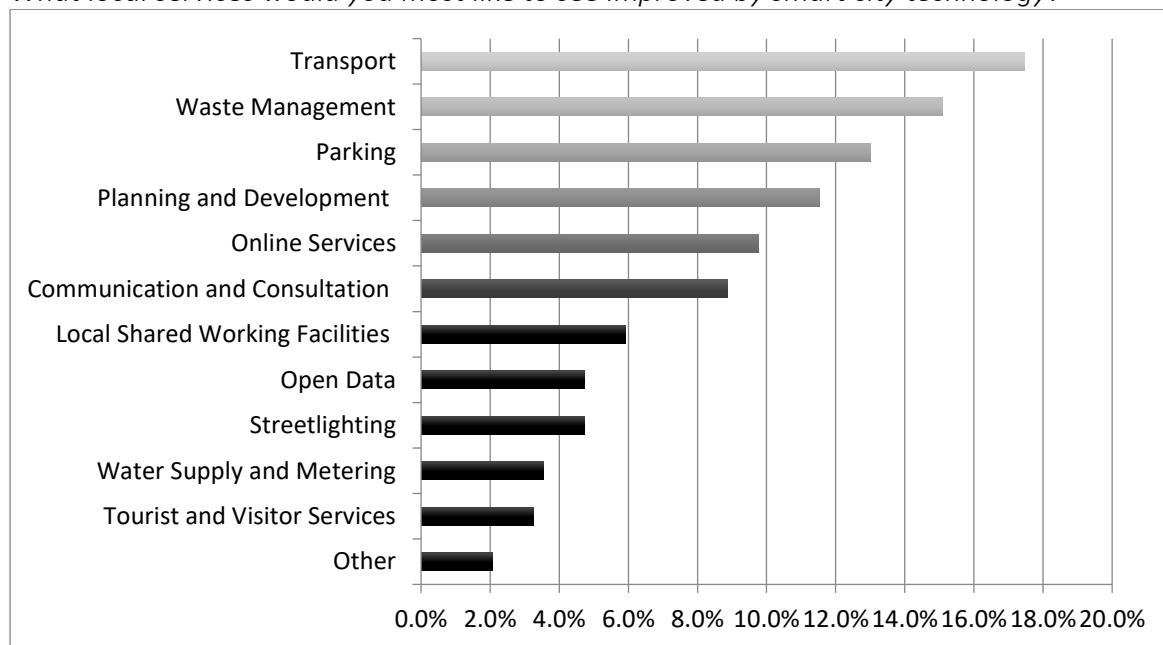
122 people participated in the community survey, slightly more females than males. Almost all respondents (97%) were from the Randwick City Council area. 17% were between the ages of 16 and 35, 46% were aged 36 to 55, and 37% were aged 56 and above.

### Survey Results

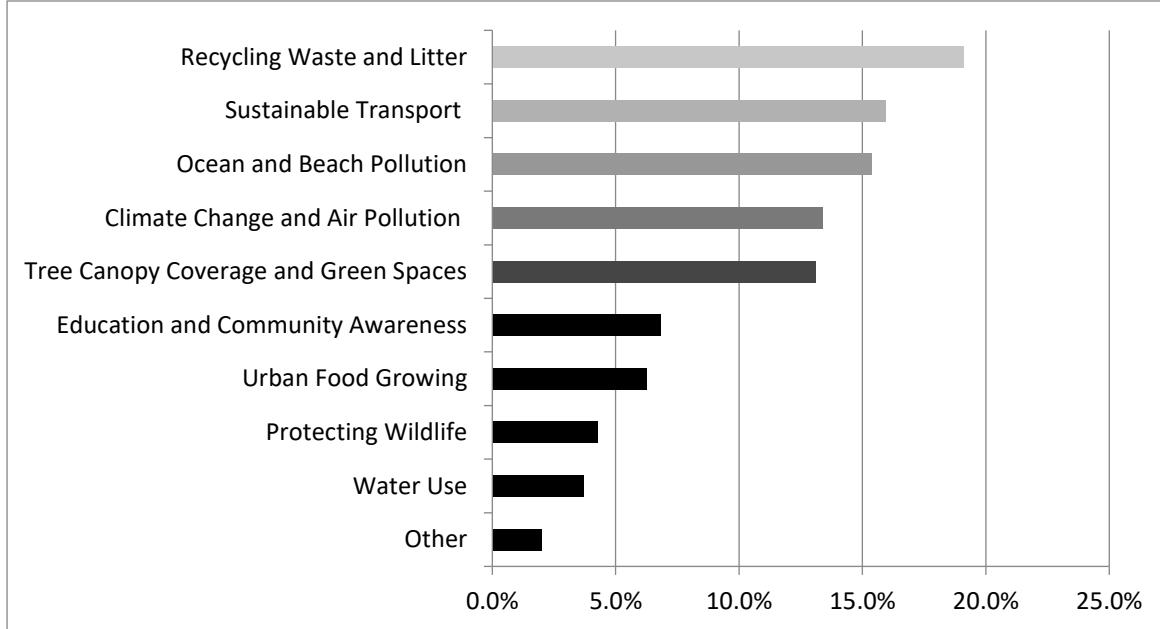
*What benefits should the City of Randwick target by leveraging smart city technology?*



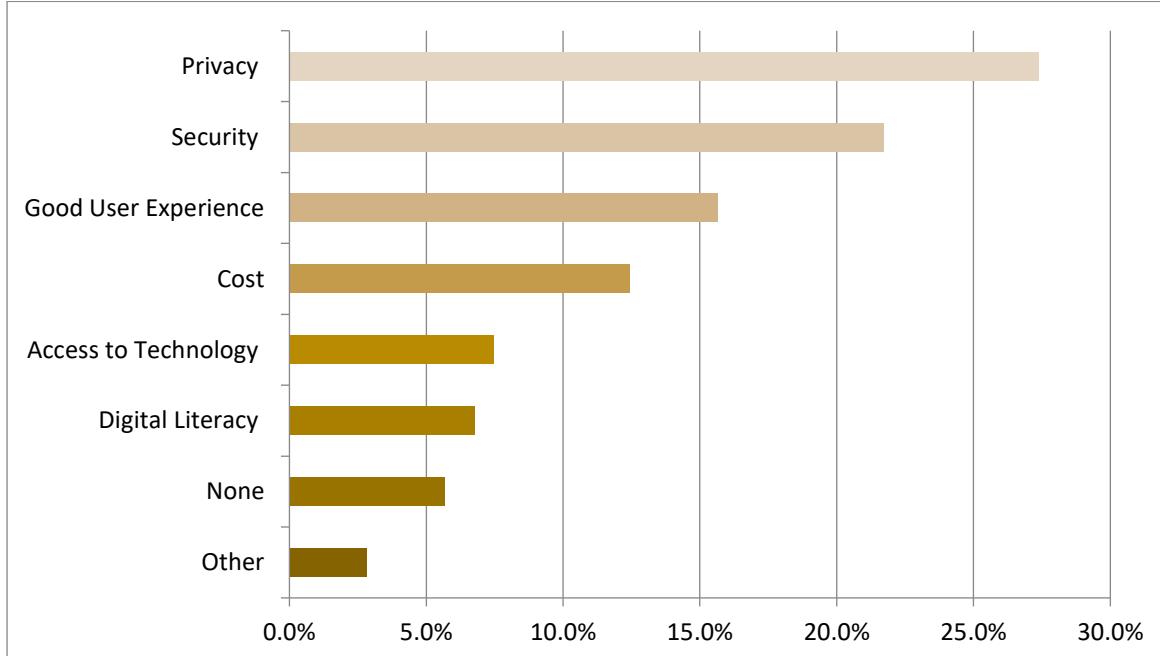
*What local services would you most like to see improved by smart city technology?*



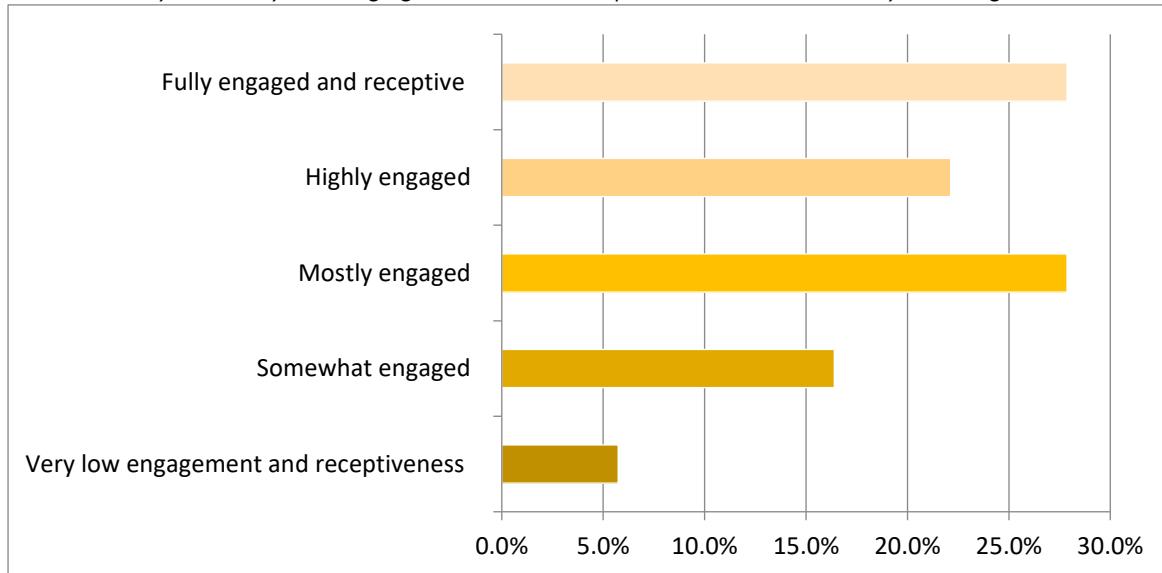
*What is the most important area that smart city technology could target to contribute to environmental sustainability?*



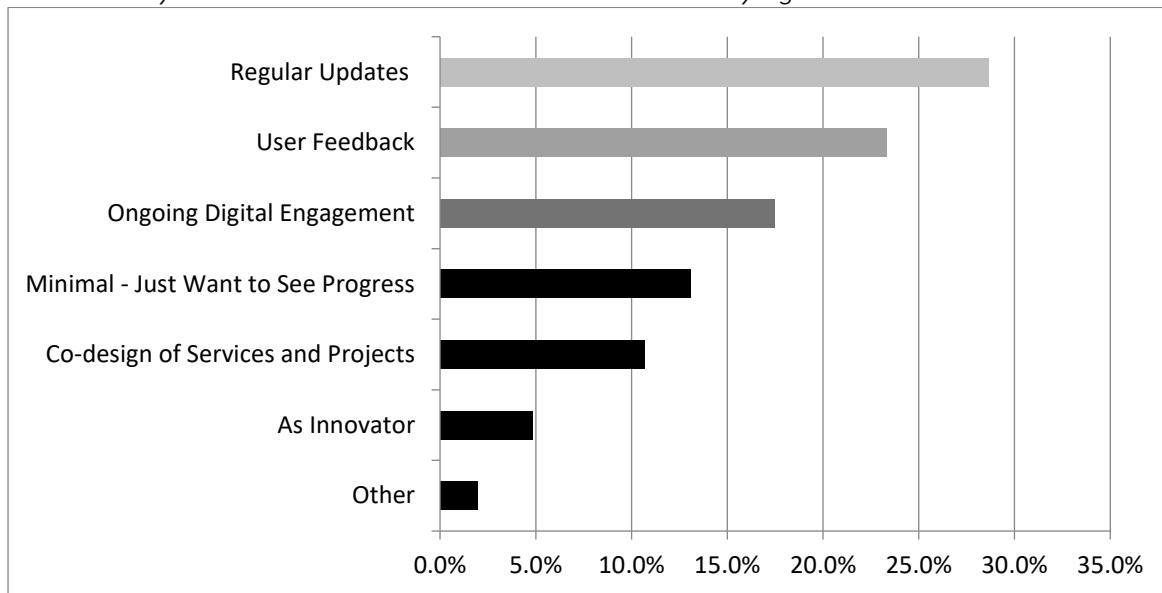
*Do you have any concerns about the use of smart city and digital technology?*



*How would you rate your engagement and receptiveness to smart city and digital technology?*



*How would you like to be involved in Randwick's smart city agenda?*



## **My great idea to drive smart city outcomes for Randwick is ....**

From the many ideas shared by the community, a selection of representative and noteworthy ideas are summarised in below:

- Planning and development
  - Use smart technology to improve planning and development, sustainability, transport and congestion, waste management, and energy production
  - Automating development applications and rezoning of land so they are assessed via objective artificial intelligence
  - Use technology to modernise the governance and operation of strata blocks
  - Smart building monitoring and management
- Innovation
  - Use open source data from other smart city projects to inform action in Randwick
  - Gameification and rewards to encourage community participation and positive behaviour changes
  - Establish a smart working/innovation hub in Randwick
  - Take risks with innovative ideas
  - Leverage local expertise and professional know-how
- Sustainability
  - Increase availability of public EV charging stations
  - More solar powered smart assets – e.g. bins, lights, security cameras
- Digital services and assets
  - Integrated smart parking including public, private, shared, off street, and on street parking
  - Early adoption of IoT and 5G
  - Council communication to become digital by default
  - More Wi-Fi in public spaces

### **Other comments, views and feedback**

In this section of the survey, the Council received a good number of positive comments, praising the initiative, and thanking Council for the opportunity to have their say. Other representative or noteworthy comments are presented below:

- We should put in place objective AI systems instead of subjective human decisions
- The more digital services offered by Council, the better
- Digital ideas box so citizens can provide novel ideas to improve our community
- Use smart city data to identify best places for on-street parking, especially to minimise traffic delays
- Free Wi-Fi to attract business and visitors
- Cyber-security is of utmost importance – Council should take the opportunity to combine smart city leadership with best practice security and privacy.
- Don't overcomplicate the technology
- Let's find a way to take the best of technology, and avoid the 'all-seeing, all-controlling community'
- Smarter solutions to monitor and maintain our street lights
- Charge for parking in coastal areas, especially at peak times
- Don't forget digital inclusion

### **Select quotes from survey**

- “Free Wi-Fi will draw more visitors and support local businesses”
- “Our area is rapidly growing and this is exciting. Urban density is important. However, as a mother, as a member of local community groups and as someone who lives and works in Randwick, I want to see more sustainable infrastructure. For me this covers both community spaces and public transport options.”
- “[We should implement] integrated (on-street, secure, private, shared etc.) and open real-time parking monitoring system with navigation and live reporting of violations to unclutter our streets, and improve parking availability.”
- “[We should] have plentiful places for electric car recharging for those with no off-street parking.”
- “A Smart City should be built on the philosophy of enhancing nature for community's benefit. It should have 'green infrastructure' as the key to its planning, design, and ongoing management.”

- “The smart city initiative should make its goal to provide better community engagement, safety, and lessening the digital divide—the council should be transparent in data collection, usage, and security”

### **Key insights**

The Randwick community are very supportive of smart city technology and innovation with 50% indicating they are fully engaged/receptive or highly engaged. A further 27.9% are mostly engaged. Only 5.7% indicated very low engagement and receptiveness.

When considering the priority objectives for Randwick’s Smart City Strategy, the community identified environmental sustainability (22.4%), better social outcomes, (14%) better local services (12.9%), and enhanced parks and amenities (11.5%) as the top four.

The top local services which community wanted to see improved with smart tech were transport (17.5%), waste management (15.1%), parking (13%), planning and development (11.5%), and online services (9.8%).

The main smart city concerns of the Randwick community were privacy (27.4%), security (21.7%), good user experience (15.7%) and cost (12.5%).

Looking to the future, when asked about how they’d like to stay involved, the majority of the community indicated a preference for regular updates (28.6%), user feedback (23.3%), and ongoing digital engagement (17.5%). More intensive participation was less common, with 10.7% indicating an interest in co-design, and 4.9% as innovator.

## 7. Mayor's Roundtable

To encourage broader leadership, collaboration and participation, and explore smart city opportunities and ideas, the Mayor also hosted a Smart City Roundtable with key stakeholders on 31 May 2018.

*Picture 3: Mayor's Roundtable*



### Discussion Points

Key items of discussion at this Roundtable included:

- The importance of having clear smart city priorities for the City, keeping things simple and focused, to ensure that the Strategy delivers real, enduring change
- Leveraging existing relationships for smart city outcomes – for example, working with UNSW to establish/operate a living lab for Randwick
- Smart cities are not all about technology – smart planning, governance, and policy are just as important
- Rethinking design and planning to consider and embed a digital dimension in all projects (e.g. the built environment and place making)
- How Randwick can learn from other smart city deployments, such as the smart nodes being rolled out in the Sydney Botanic Gardens
- The necessity and value of smart city collaboration and coordination with other councils
- Working to maximise the positives of smart city technology, and manage the risks
- Understanding the role of Council and of other players – there is time and place for each to lead, partner, and champion

- How to build a culture of ‘loving data’ – understanding how to collect, store, analyse, share, and use data to monitor and improve the City
- Telling our smart city and innovation stories to raise awareness, encourage participation, build the City’s tech profile, and attract new ideas and investment
- Supporting smart city activity through complementary regulatory reform and red tape reduction, especially procurement
- Integrating digital technology into the planning/development process to improve efficiency, engagement and outcomes
- Developing holistic city performance frameworks to guide the collection and utilisation of big data
- Appreciating the diversity in community needs, which might require variation in digital services, but also in privacy management
- Ensuring smart city projects are interoperable

### **Key Insights**

The Mayor’s roundtable reinforced that the broader Randwick community includes a host of leaders and champions who are already engaged in smart city programs and/or are willing to partner and work with Council to progress local smart tech outcomes. This is a terrific strength for Council to draw upon.

Roundtable participants highlighted the imperative to embed smart city standards, especially interoperability, to maximise network benefits.

Sharing and partnership were emphasised, from a range of perspectives, as a means of expanding action, applying best practice, avoiding mistakes, and building momentum.

The critical opportunity for Council is to transform the enthusiasm, vision and good will of local institutions and leaders into tangible collaboration and delivery.

## 8. Recommendations

As Council moves from stakeholder engagement to strategy development, Delos Delta recommends that Council give consideration to the following priorities.

These recommendations are based on the outcomes of community, staff and stakeholder engagement (as noted in this report), as well as Delos Delta's broader experience formulating and delivering smart city plans.

### Promoting Innovation

Randwick has a rich history of being involved in innovative projects. Council staff and the community were both keen to unlock the innovation potential of Randwick. This is a positive foundation, as innovation is the essence of smart city transformation.

Building on this foundation, stakeholder feedback indicated the desire for tangible commitments, programs and pathways to incentivise and drive innovation. Processes, policies and culture are also key determinants of innovation.

Delos Delta recommends that the Smart City Strategy include objectives and actions to build innovation maturity and activity both within Council and across the broader Randwick community.

### Smart Planning and Development

Ongoing growth and development within Randwick will be one the biggest issues for the City, in terms of materiality, as well as the varying levels of support/concern in the community.

Smart city technology offers the opportunity to improve both the process and the outcome of planning and development. Digital tools (such as 3D City Models) can enhance the understanding of development impacts, and strengthen community engagement and dialogue. And embedding smart technology in new building and precincts can improve sustainability, public amenity, liveability and safety.

At a basic level, to be a smart city, we need to design and build smart. Collaboration and partnership with land-owners, government agencies and researchers, which leverage their expertise and investment, will accelerate smart city transformation.

Delos Delta recommends the Smart City Strategy prioritise smart planning and development, covering improved partnerships, processes, consultation and transparency.

### Smart Governance, Capacity and Culture

Delos Delta has studied smart city success factors in cities around the world – supportive governance, capacity and culture (especially within council) is a leading indicator of success.

Smart city governance/leadership within a council is often considered a binary choice between centralised planning and delivery, and distributed action right across the organisation. In practise both approaches have their strengths and weaknesses.

A centralised approach allows agile and focused delivery for quick wins, but can disempower other parts of the council, and limit long term, broad-based organisational reform. The distributed approach, on the other hand, builds culture and capacity across council, but can lack coordination and leadership.

Leading smart cities tend to apply a balanced governance model, combining central leadership, coordination and delivery with distributed collaboration, training, knowledge sharing, and action.

Beyond sound internal governance, smart city leaders also look externally, folding other councils, academia, innovators, entrepreneurs, community-groups and private companies into a broader partnership framework.

As well as governance, smart city success will depend on building new skills and capabilities. Digital thinking, smart city design, and innovative service delivery are capacities both necessary and (at least presently across Australia) exceptional. Council will need to assess and develop internal smart city capacity, to effectively deliver and sustain new digital services.

For Randwick, staff affirmed the opportunity for enhanced smart city governance and capacity particularly relating to coordination, collaboration and formal processes.

Delos Delta recommends a suite of purposeful measures to establish robust smart city governance and culture, which may include:

- Leadership from the Mayor, other Councillors and senior executives
- Resources to further implement the strategy, which may include a dedicated smart city team
- Across-council governance encouraging multi-disciplinary collaboration and coordination, balancing central leadership/delivery and distributed action/capacity building
- A broad-based smart city partnership/coordination framework supporting smart city dialogue and collaboration with external stakeholders
- Assessment of smart city skills and capabilities within Council
- Training and development for staff, including training in smart city procurement, big data, analytics, technical skills and funding models
- Promoting smart city and innovation achievements and efforts
- New service/infrastructure/organisational planning processes which integrate smart technology considerations as early as possible

### Funding the Smart City

Money is the ultimate constraint for any policy or strategy. Too often smart technology is seen as additional rather than fundamental, desirable rather than essential, and consequently only progressed subject to new funding.

A better method is to review existing capital and operating budgets (i.e. base funding), and identify opportunities to re-profile expenditure/investment from physical to digital elements.

In a digital world, every service and capital project should include a digital dimension, yet in many instances this dimension has been overlooked or scoped out. A modern budget process should promote smart technology and look to embed such investment in all funding allocations.

Delos Delta recommends that Council review their budget process to support smart city investment – through both allocation of new funds, and re-profiling of existing funds. New smart city funding and financing models, supported by public private partnerships, should also be added to the budget framework.

### Leveraging Existing Strengths

One of the most effective ways to be a ‘smarter city’ is to leverage existing assets and strengths. Stakeholders identified the local University and hospitals as long-standing powerhouses of innovation and intelligence, which can and should play a leading role in Randwick’s smart city eco-system.

Between Council, University, and the health system, the formation of partnerships, innovation hubs, living labs, co-design programs, accelerators/incubators and innovation pathways, offers great potential for smart city leadership and results.

Delos Delta recommends that Council engage with these institutions (and others, as appropriate) to embed productive smart city and innovation partnerships in the Strategy.

### Sustainability

Again and again, staff and community identified sustainability as a priority outcome of smart city investment and action in Randwick. There are a number of valuable projects and initiatives, which can deliver on this aspiration, including smart waste management, renewable energy, smart environmental monitoring, congestion management, smart buildings, and smart mobility.

Delos Delta recommends Council emphasise sustainability in the Smart City Strategy, and prioritise a number of smart technology projects to meet this community need. This should also include expanding existing smart sustainability projects.

### Digital Democracy

A basic principle of smart city development is to talk to community about digital technology, and use digital technology to talk to people. The first part of this principle ensures that the community can share their concerns with digital technology, as well as their priorities for outcomes, services, and user-experience. The second part of this principle means that by using digital platforms to supplement face-to-face contact, we can talk to many more in our community, with efficiency, convenience and frequency.

Community and staff both recognised and appreciated this strength and momentum of digital technology. Not only is 'digital democracy' a great tool for community engagement and participation, it is a powerful method of unlocking innovation, collaboration and confidence – all key ingredients in building a thriving, creative smart city.

Delos Delta recommends that Council further existing digital consultation methods, as well as embed community participation and digital democracy in the Strategy, as a means of identifying and addressing local concerns (with privacy and security for example), and to empower the community to help create and build their future city.

### Privacy and Security

When imagining their future smart city, the primary concerns of Randwick's community were privacy and security. These concerns were echoed in surveys, face-to-face sessions, and workshops with Council staff.

The importance of this issue is two-fold. First, any lapses in privacy and security can cause direct harm to people and businesses. Second, such failures then reduce general community trust and confidence, which can undermine broader smart tech and innovation progress.

Delos Delta recommends that safeguarding privacy and security becomes a central principle of Council's Strategy, to be enacted through ongoing conversation with the community, about their concerns and expectations.

### Partnership and Priorities

Smart city development is a big agenda. It relates to every aspect of a city, and myriad technology possibilities. Building a smart city is not, and cannot be, the sole responsibility of Council or any other party.

Leading smart cities encourage partnership and participation to accelerate deployment and utilisation of digital technology. The aim is for all city builders to be thinking and creating smart – delivering smart buildings, homes, industry, public spaces, mobility, local services, health/education facilities, and experiences.

Moreover, where Council does take the lead, in a world of immense digital investment options, where community trust can be quickly eroded by poor technology choices, prioritisation of effort and resources is critical. Smart city transformation is an exercise in

learning, change management and capacity building, which is better served by focus and resolution, rather than a fragmented, overflowing grab bag of tech pilots and initiatives.

Delos Delta recommends that Randwick's Smart City Strategy carefully prioritise any initiatives to be delivered by Council, and include actions that encourage smart city participation, leadership and partnership by a range of other players.

### **Data, Innovation, Performance and Decision Making**

Big data, higher quality data, and more accessible data are the hallmarks of a smart city. Digital sensors and networks are providing unprecedented amounts and types of data for cities, driving innovation, improved community outcomes, transparency, and research.

All Randwick stakeholders saw the great value and possibility of this data boom, and identified the harvesting and utilisation of this data as a smart city priority. Beyond data itself, stakeholders recognised that turning data into intelligence and action also requires strong performance frameworks, innovation pathways, and integrated decision making systems.

The combination of big data with integrated performance systems, which address monitoring, reporting, and management, allows better measurement of a city's overall health, wellbeing and performance, (the city's 'pulse', as it is commonly referred to).

Delos Delta recommends that the Randwick Smart City Strategy include smart data management as a key principle and program, giving consideration to:

- making the most of existing data ('small data'), not just new data ('big data')
- refining and implementing performance frameworks to guide collection and use of data (i.e. the creation of intelligence)
- integrating big data collection and performance management systems with decision making processes so that increased intelligence directly translates into better actions
- promoting access to data, information and intelligence to enhance innovation, collaboration and transparency
- working with other governments, organisations and the community to connect and integrate data sources to increase the diversity and value of the data portfolio

### **Complementary Reform – Regulation, Procurement, and Processes**

Smart city progress does not just mean more digital/smart projects. Excellence requires complementary modernisation of city/Council regulations, institutions, business processes, procurement practices and innovation protocols. Without such parallel coordination, smart city initiatives will be constrained by red tape and old-fashioned modes of operation.

Delos Delta recommends that the Randwick Smart City Strategy provide mandate and direction for complementary reforms.

## Appendix – Surveys

### Community Survey

1. What benefits should the City of Randwick target by leveraging smart city technology? (select up to three)
  - a. Better local services
  - b. Environmental Sustainability
  - c. Increased job and economic opportunities
  - d. Enhanced community consultation
  - e. Improved city activation and vibrancy (for locals and tourists)
  - f. Better social outcomes
  - g. Library services
  - h. Parks and amenities
  - i. Resilience
  - j. Investment attraction
  - k. Supporting innovation
  - l. Other (please specify)...
  
2. What local services would you most like to see improved by smart city technology? (select up to three)
  - a. Online services (e.g. online payments and DA applications)
  - b. Local smart/shared working facilities
  - c. Communication and consultation
  - d. Planning and development
  - e. Waste management
  - f. Parking
  - g. Open data
  - h. Transport

- i. Street-lighting
  - j. Water supply and metering
  - k. Tourist and visitor services
  - l. other ... (please specify)
3. What is the most important area that smart city technology should target to contribute to environmental sustainability?
- a. Ocean and beach pollution
  - b. Climate change and air pollution
  - c. Recycling waste and litter
  - d. Sustainable transport
  - e. Water Use
  - f. Protecting wildlife
  - g. Urban food growing
  - h. Education and community awareness
  - i. Tree canopy coverage and green spaces
  - j. Other
4. How would you rate your engagement and receptiveness to smart city and digital technology?
- a. Fully engaged and receptive
  - b. Highly engaged
  - c. Mostly engaged
  - d. Somewhat engaged
  - e. Very low engagement and receptiveness
5. Do you have any concerns about the use of smart city and digital technology? [pick up to three]
- a. None

- b. Privacy
- c. Security
- d. Access to technology
- e. Digital literacy
- f. Good user experience
- g. Cost
- h. Other (please specify)

6. How would you like to be involved in Randwick's smart city agenda? (pick up to two)

- a. Regular updates
- b. Ongoing digital engagement
- c. User feedback
- d. Co-design of services and projects
- e. As innovator (e.g. use of open data)
- f. Minimal - just want to see progress
- g. Other (please specify)

7. You live in:

- a. In the Randwick City Council area
- b. In greater Sydney
- c. Elsewhere in NSW
- d. Other

8. You are what age:

- a. 0-15
- b. 16-25
- c. 26-35
- d. 36-45

- e. 46-55
- f. 56-65
- g. 66-75
- h. 75 plus

9. You identify as:

- a. Female
- b. Male
- c. Non-binary
- d. Prefer not to say

10. My great idea to drive smart city outcomes for Randwick is ....

(FREE TEXT)

11. Any other comments, views, feedback most welcome ....

(FREE TEXT)

12. Please provide your email address if you'd like to stay in contact

(FREE TEXT)

### Staff Survey

1. What existing work within Council should we showcase or build upon in the Smart City Strategy? [Free Text]
  
2. What local services should be a priority for smart city transformation? [pick up to three]
  - a. Street-lighting
  - b. Parking
  - c. Planning and development
  - d. Waste management
  - e. Parks and public spaces
  - f. Visitor and tourist services
  - g. Environment
  - h. Asset management (including buildings)
  - i. Transport
  - j. General council services (e.g. licensing)
  - k. Communications and engagement
  - l. Customer service
  - m. Other [Free text]
  
3. What are the main barriers (within Council) to delivering smart city projects and outcomes? [pick up to three]
  - a. Leadership
  - b. Availability of time
  - c. Funding
  - d. Risk aversion
  - e. Limited collaboration
  - f. Skills and capability
  - g. Red tape

- h. Organisational structure and hierarchy
  - i. Other [Free Text]
- 4. Beyond leading specific projects, how should Council help drive smart city action? [pick up to three]
  - a. Raising awareness
  - b. Collaboration and partnership
  - c. Advocacy
  - d. Encouraging innovation
  - e. Promoting Randwick
  - f. Other [Free Text]
- 5. You are what age:
  - a. 17-25
  - b. 26-35
  - c. 36-45
  - d. 46-55
  - e. 56-65
  - f. 66+
- 6. My role at Council is within:
  - a. City Services
  - b. Governance and Financial Services
  - c. Office of the General Manager
  - d. City Planning
- 7. My great idea for Council to drive smart city action and outcomes is ....
- 8. Any other comments, views or feedback most welcome ...