DRAFT

SMART CASEY
LAUNCHPAD

2021–2025

OCTOBER 2020

City of
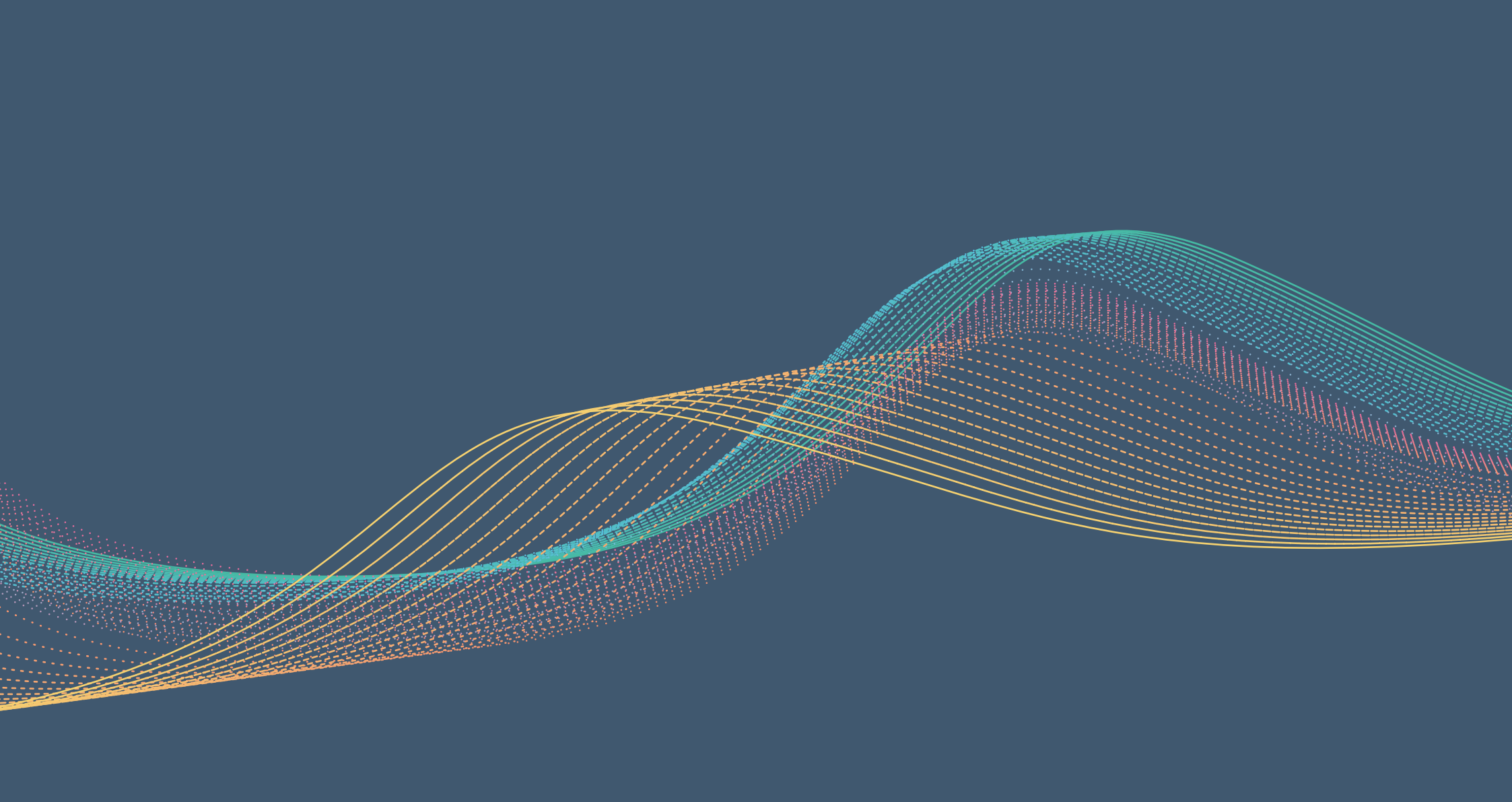## Casey

ACKNOWLEDGEMENT OF COUNTRY

The City of Casey proudly acknowledges the traditional owners,
the Bunurong and Wurundjeri People, and their rich culture. We pay
respect to their Elders past, present and future.

We acknowledge Aboriginal people as Australia's first peoples and as
the traditional owners and custodians of the land on which we work
and live.

TIS: 131450 (Translating and Interpreting Service)

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Interpreter

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SMART CITY FOREWORD
FROM LOCAL LEADERS

Noelene Duff PSM
Chair of Administrators, City of Casey

The City of Casey continues to be one of Victoria's fastest growing municipalities, and with this comes many diverse social, economic and environmental opportunities.

I am delighted to see Council's leadership in developing the Smart Casey Launchpad. It is a collaborative approach that will ignite conversations with our community to drive innovation and positive change within the Casey region.

This year, more than ever, we have seen how technology, innovation and data can help us adapt to ongoing challenges and build resilience. To continue to increase our community's resilience we need to maximise the opportunities that are available to us.

The Smart Casey Launchpad will drive new growth and position Casey as a leader in applying community focused technology and innovation.

Ray Keefe
CEO, Successful Endeavours

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I am encouraged by the City of Casey's approach to hearing the community's voice and using it to shape the Smart Casey Launchpad. As a local business leader in IT, it is great to see the emphasis on becoming a hub of smart city activity. The Smart Casey Launchpad identifies our long-standing challenges including transport, social cohesion, environmental sustainability and economic attraction. It also provides a refreshing approach to how we can collectively solve these challenges. Some of these are not easy topics to talk about but we will work together to create new solutions and become a thriving Casey.

Dominique La Fontaine
Executive Officer, South East Councils Climate Change Alliance

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The Smart Casey Launchpad presents an exciting opportunity to harness cutting edge technology and innovation to reduce greenhouse gas emissions and strengthen the community's resilience to a changing climate. Powering smart city initiatives with renewable energy will help achieve the Strategy's carbon neutral goal and embracing circular economy principles will drive truly sustainable outcomes.

Ben Jenkinson
Former Director, Casey Tech School

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I see the Smart Casey Launchpad as an ideal platform for engaging all members of the community to share their perspectives and help to contribute to setting the agenda for Casey's future. Having real time data at our fingertips will enhance the local education system and accelerate examples of STEAM in the real world. My vision for Casey as a smart city is one where Casey's Smart Casey Launchpad and outcomes are held up on a pedestal for other cities across Victoria and Australia to aspire to. We already have the knowledge and capacity in the region, so let's lead the pack and improve the lives of residents as a result.

Brian Oates GAICD JP
Chairperson, Acting CEO Southern Migrant & Refugee Centre

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At Southern Migrant & Refugee Centre, we recognise the significance multiculturalism can make to the City of Casey. We are thrilled at the collaborative approach taken by the City of Casey to enable the voices of our diverse communities to be heard to inform and contribute to the planning, and the opportunities that this can open up.

The Smart Casey Launchpad enables a collective approach to tackling challenges such as social cohesion, environmental sustainability, education and employment leading to a strengthened economic outlook, in a unified and welcoming manner. We are honoured and proud to contribute our support to the Smart Casey Launchpad with a desire to make stronger communities.

INTRODUCTION

As one of the fastest growing cities in Australia, innovation and collaboration are essential for the future success of the City of Casey. Working together, Council and the community have the opportunity to solve our emerging economic, social and environmental challenges, using innovation and smart technology.

The Smart Casey Launchpad is our approach to coordinating and inspiring smart city action that will build resilience, inclusion and sustainability in the region.

Casey will be a thriving, curious and future-ready community, who embraces technology to enhance the liveability of our city.

The Smart Casey Launchpad will guide community, Council and key stakeholders to create a connected, sustainable, inclusive and innovative future for our growing city.

WHAT A SMART CITY MEANS FOR CASEY

Through hundreds of conversations and thousands of data points, our community and partners shared what a smart future looks like for Casey.

For our city, the benefits of a smart transformation will include cost savings and economic growth in addition to:

> Connected Communities: All Casey residents and visitors will have greater access to opportunities. This includes improved digital inclusion and participation across the diverse Casey community.

> Activated Places and Spaces: Our city will be vibrant and connected, with expanded and sustainable mobility access and coverage.

> Sustainability: We will expand our renewable energy production, restore natural spaces and drive a thriving circular economy.

> Innovation: We will encourage pilot projects and collaboration, share data and build capability and skills for the future – anything is possible!

WHAT IS THE ROLE OF THE COUNCIL IN A SMART CITY?

Council's role is simple. In the early stages Council will be a bold leader; starting conversations with the community, potential partners and stakeholders, investing in innovation and facilitating collaboration. As the Smart Casey Launchpad builds momentum, leadership will come from community, local entrepreneurs, students, business and organisations, with Council acting as a supporter, facilitator and advocate.

WHAT IS A SMART CITY?

A city that puts its community first, adjusting to serve them and their growing needs. It applies digital technology, data and innovative practices to improve liveability, sustainability, collaboration and economic opportunities.

Smart cities engage and consult with communities. Through policy and service, and collaboration and co-design, the city truly works on behalf of its residents and visitors.

Smart cities gather, share and analyse data. Data is the fuel behind innovation, service improvement and efficiency gains.

Smart cities facilitate innovation and collaboration. Smart cities foster human connection, idea and knowledge sharing, and experimentation that lead to a more prosperous and cohesive society.

Smart cities encourage diverse involvement, access and inclusion across cultures, experiences, and ages.

CURRENT STATE: SMART CASEY MAP

In 2017, the smart city agenda was launched in Casey with the focus on a range of demonstration projects.

Over the years a number of projects have expanded based on community needs. This map highlights a range of Casey Smart City initiatives including those by Council, and those by education institutions and property developers.

AI BMX
CRANBOURNE-CASEY FIELDS

In partnership with Federation University, Council trialled the use of AI (Artificial Intelligence) software and video data analysis to understand (in real time) when illegal vehicles are accessing the BMX track. This initiative supported stronger decision making from Council officers and ensured the safe and inclusive use of the facilities.

CASEY TECH SCHOOL
BERWICK

In collaboration with Council's Smart City and Innovation Team, Casey Tech School developed the 'Smart City Challenge'. The Program allows students to engage in citizen science, analysing sensor data, to develop and test designs that aim to improve their lives

CONNECTED STREET FURNITURE
DOVETON-ABORIGINAL GATHERING PLACE

Connected street furniture provides simple and effective access to public Wi-Fi and device charging. This initiative offers internet access to those who do not have internet at home, increasing digital accessibility and inclusion across Casey.

SMART LIGHTS
VARIOUS

Deployment of a range of smart, solar lights across Casey. This provides an energy efficient and sustainable lighting option as well as increased visibility for residents at night.

AQUAREVO
LYNDHURST

Aquarevo is a unique development partnership between South East Water and Villawood properties.

Aquarevo aims to close the loop on household water usage, enabling residents to save water and money. Each household has sensor technology and innovative water infrastructure which integrates drinking water, rainwater and recycled water supplies to all 460 homes in the development.

With this new approach to technology and infrastructure innovation, Aquarevo's households are expected to reduce their reliance on drinking water by up to 70 per cent, as it is only used where it is really needed.

LONG RANGE WIDE AREA NETWORK (LoRaWAN)
VARIOUS

A Casey-wide data communications (LoRaWAN) network supports the community and local business to take advantage of modern technologies. The network also supports future expansion of smart sensors to enable new public services and assets.

SMART SOLAR BBQ
BERWICK SPRINGS

The Smart Solar BBQ in Berwick Springs enables Council officers to remotely monitor maintenance needs and reduce response times for potential issues. The solar powered BBQ can be used day and night thanks to smart battery storage, supporting Council's commitment to sustainability.

SELANDRA COMMUNITY HUB
CLYDE NORTH

The Selandra Community Hub demonstrates best practice in evidence-based design for sustainable and adaptive community facilities. Sustainable and renewable energy sources paired with smart technology have resulted in reduced running energy costs to near zero.

SMART PARKING
NARRE WARREN

Smart parking systems that use smart sensors and data management are installed in Bunjil Place and Casey ARC. Smart parking systems allow residents and visitors to access real-time information and parking availability, through an easy-to-use app.

SAFE IN HER CITY
VARIOUS

The Safe in Her City Gender Audit Tool, is an Australian first and builds upon global good practice. The innovative approach incorporates data and the voices of women and girls with the expertise of urban designers, to assess and inform the safe design and continual improvement of public spaces and places.

CASEY'S SMART CITY ENVIRONMENT

GLOBAL TRENDS

The global environment is experiencing systemic shifts with numerous new challenges and opportunities emerging. In developing this the Smart Casey Launchpad, the City of Casey is enhancing its ability to monitor, plan and respond to these trends.

RAPID URBANISATION

Rapid urbanisation is stressing city infrastructure, services, security and resource management across the globe. In 2019, new residents in Australian capital cities swelled by an extra 300,000, with Melbourne accounting for close to 50% of new growth[1].

GROWING DEMAND FOR CONNECTIVITY

New technology is changing how we live, work and play. It is revolutionising the way we connect, collect and analyse information. The number of Internet of Thing (IoT) devices is expected to increase globally from 8 billion today to over 41 billion by 2027[2] – just one example of how technology is transforming connectivity and information sharing.

GLOBAL EMERGENCIES & INTERCONNECTION

Global supply lines, modern communication, travel and immigration are transforming every city into a global city. It is redefining the meanings and possibilities of 'places', 'communities' and 'social networks'[3]. As the COVID-19 Pandemic is highlighting across the world, the resilience of local communities is tied to global networks.

WORK, TRANSPORT & TRUST

We are now more connected than ever, which is transforming the nature of work, services and transport among others. Nevertheless, we are also drifting into silos and there is declining trust in institutions. Trust in the Parliament of Australia halved from 56 percent in 1981, to 28 percent in 2018[4].

1. Wright, S. and Sakkal, P., 2020. Booming Melbourne to become nation's largest city by 2026. *The Sydney Morning Herald*
2. Newman, P., 2020. THE INTERNET OF THINGS 2020. *Business Insider*
3. Castells, Manuel (2000). The Rise of The Network Society: The Information Age: Economy, Society and Culture. John Wiley & Sons
4. CSIRO, 2019. *The Australian National Outlook 2019*. National Outlook Reports

LOCAL TRENDS

A thriving smart city understands the unique challenges and opportunities faced at a local level. Deeply understanding our landscape ensures we can capitalise on the new opportunities and address emerging challenges. As one of the fastest growing regions in Australia, our core smart city driver is effectively managing Casey's growth.

Casey's population is expected to increase from 350,000 people in 2019 to 550,000 over the next 20 years[5].

THE GROWTH CHALLENGE

The Casey community is rapidly growing and the demand for services, particularly those that cater to young and elderly residents is increasing significantly.

> Casey's population density is 865 people per square kilometre. Young families make up over 25 per cent of the Casey population and this proportion is even greater in new growth areas.

> The number of older people (65+) will increase from 10 per cent in 2016 to 13.5 per cent in 2041; in established suburbs this will be closer to 20 per cent[6].

Community safety, mobility, cohesion, and health are key elements of liveability that our city must continually address.

> Casey ranks in the bottom five Victorian Local Government Areas (LGA) for: people who felt safe walking alone in local areas after dark; levels of physical activity; and availability of general practitioners[7].

> Over 75 per cent of Casey residents travel to their jobs by car despite nearly 60 per cent of residents working in Casey or a neighbouring LGA.

> Over 35 per cent of Casey residents speak a language other than English at home, and over 50 per cent have a parent who was born overseas[5].

THE GROWTH OPPORTUNITY

Casey's innovation ecosystem is uniquely poised to grasp the opportunities of the digital age. The capacity of our community and Council to lead this smart city transformation is a core strength to be leveraged.

> Casey's economy is dynamic, sitting in the top 10 per cent of LGAs for business entries and top 20 per cent for employment in ICT and electronics[8].

> The City of Casey's access to tertiary and technical education institutes sets it apart from the majority of other LGAs.

> Casey is home to a range of high-quality education institutions. To date, schools and youth have shown incredible energy and ability in the smart city transformation through a range of programs and partnerships.

> The City of Casey is ready to be an Australian leader in the smart city space, having implemented several pilot initiatives already.

> Technology that assists disadvantaged groups through improving accessibility and social connections is a key priority of the community.

5. Profile.id.com.au. 2020
6. Casey Social and Affordable Housing Needs Assessment Report 2019
7. Local Government Victoria's Liveability Index: Safety, Wellbeing and Connectedness
8. Regional Australia Institute (RAI), 2016

COMMUNITY INSIGHTS

The City of Casey built this Smart Casey Launchpad around the needs of our community.

Through hundreds of conversations and thousands of data points, our community and partners shared what a smart city future could look like for Casey.

This is the start of an evolving conversation. Our smart city approach is place-based and community-driven with ongoing conversations about the opportunities and challenges so we can continue to respond to the needs of our community.

COLLABORATIVE ENGAGEMENT

MAY – JUNE 2020

Council:

> Staff survey (131 respondents)
> Two plenary session (96 attendants)
> Online workshops (135 attendants)

Education sector – Staff and Students from:

> Federation University
> Chisholm TAFE
> Crest Education
> Hampton Park Secondary College
> Federation University
> Casey Tech School

Smart City Advisory Committee:

> Smart city leaders from the community

JULY 2020

General public survey (187 respondents)

Ten consultation sessions (154 attendants)

> General community
> Business community
> Casey contractors and suppliers
> Sustainability sector
> Community service organisations
> Start-ups and tech companies
> Smart city vendors

HEARING OUR COMMUNITY'S VOICE

Here are just a few of our community's fantastic smart city ideas. Continue the conversation at Casey Conversations – Smart Casey Launchpad.

"Sharing the benefits of tech more broadly through increased digital literacy"

"Providing opportunities for local business and local jobs"

"Provide transparency for the community through provision of self-service data"

"Environmentally sustainable council facilities with smart technologies for the community"

"Accessible spaces for the public to engage with safely"

"Building community trust"

"Engaging with residents so they can both co-design and also co-contribute solutions"

"Improving efficiency, resilience and connection through use of data"

ENGAGEMENT INSIGHTS

TOP 3 PRIORITIES

52%

of community shared **environmental sustainability** in their top 3 Smart City Priorities

Environmental Sustainability

Mobility

Community Safety

TOP 3 FOCUS AREAS FOR LOCAL SERVICES MOST IMPROVED BY SMART TECHNOLOGY

Council asset management

Transport and parking

Social and community services

THEMES SHARED DURING ENGAGEMENT

> Digital inclusion

> Digital democracy

> Circular economy

> Renewable energy

> Open source platforms and data

> Safety and mobility innovation

> Places to innovate and grow together

> Council facilitating and leading local change

VISION

Smart Casey will be optimistic, thriving and curious. We will embrace smart thinking and innovation to improve our lives, economy and environment. As a growing community we will be leaders in digital connectivity, sustainability and inclusion.

Casey will be a connected city, built on seamless, cutting-edge and inclusive technology.

> Connectivity will transform local mobility, safety, digital access and economic growth.

> Building digital capability and access to technology will support innovation and inclusion across Casey.

Casey will be an efficient, prosperous and sustainable region open to innovation and emerging sustainability opportunities

> Data and technology will empower us to protect and regenerate the local environment.

> Smart planning will reduce waste and resource use as well as increase renewable energy to support the emergence of a leading circular economy.

Casey will have a healthy and thriving future driven by our community's diversity and talent.

> Proactive design and planning will build inclusion for all residents.

> Our approach to partnerships, innovation and community connection will set a new standard for growing communities.

Casey will be Australia's most liveable city supported by our integration of technology and innovation across the city.

> Data collection and analysis will ensure Council responds with agility to changing community needs, global shocks and trends.

> Being innovative and resilient, will support our ability to respond to new opportunities.

SMART CITY PRINCIPLES

Smart cities are constantly improving – changing and adapting in a dynamic environment. These principles will support our Council and community to align and grow together.

We will employ the following principles to ensure our smart city priorities and actions remain focused on the overall objectives of our community.

SHARED ACTION & LEADERSHIP

> We support a dynamic ecosystem where everyone can play a role, adding new value and seeing their contributions reflected in decision-making

> We invest in digital and physical infrastructure to support the establishment of a robust smart city ecosystem

FUTURE READY

> We focus on emerging conditions and understand how we can make them meaningful for today and tomorrow

> We unlock potential through smart city capability building and embed policy and practices that future-proof Council and community

COMMUNITY CENTRED

> We focus on inclusive, accessible and connected technologies for community benefit

> We empower our community through innovative digital democracy methods

> We promote accessibility and inclusion through smart city practice

OUTCOME FOCUSED

> We integrate smart city solutions accompanied by policy and training to promote the appropriate application of technology with the skills to realise its potential

> We don't use technology for technology's sake

SUSTAINABILITY

> We make use of smart technology and data to promote sustainability

> We plan our city for sustainable future growth

> We embed sustainability at the core of smart city actions to maximise outcomes

SMART CASEY LAUNCHPAD:
BRINGING IDEAS TO LIFE...

The Smart Casey Launchpad is an ecosystem for smart technology, innovation and growth. It will create a place for curiosity and collaboration for all.

We will discover new technology, data analysis, and digital connectivity to support our community, businesses, service providers Developers and industry partners.

The Casey Launchpad brings together our focus areas to build a space for smart city and innovation activity.
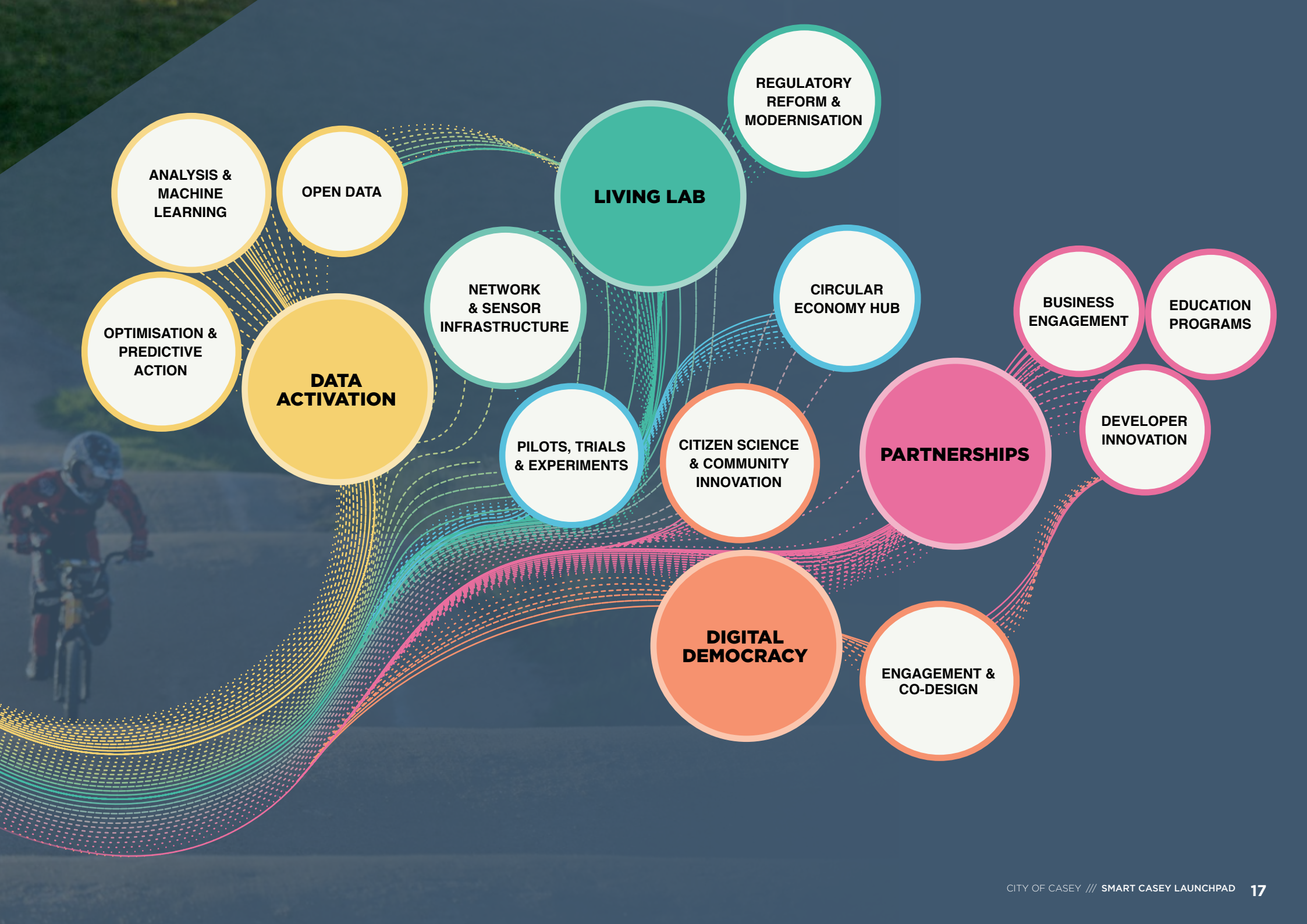The intention is to allow everyone to bring their curiosity and big ideas to launch collective action in Casey.

WHAT IS A LIVING LAB?

> A Living Lab is a community-centric, innovation and co-creation space

> A space where collaboration, pilot projects, modernisation and forward thinking are supported and cultivated

> This process includes regulatory and administrative reform, place and space activation and investment in data generation, collection and sharing

ANALYSIS & MACHINE LEARNING

OPEN DATA

LIVING LAB

REGULATORY REFORM & MODERNISATION

OPTIMISATION & PREDICTIVE ACTION

DATA ACTIVATION

NETWORK & SENSOR INFRASTRUCTURE

CIRCULAR ECONOMY HUB

BUSINESS ENGAGEMENT

EDUCATION PROGRAMS

PILOTS, TRIALS & EXPERIMENTS

CITIZEN SCIENCE & COMMUNITY INNOVATION

PARTNERSHIPS

DEVELOPER INNOVATION

DIGITAL DEMOCRACY

ENGAGEMENT & CO-DESIGN

SMART CASEY FOCUS AREAS

The Smart Casey Focus Areas will drive local action. Guided by our community, these interrelated focus areas will create new opportunities for growth, projects and partnerships.

CONNECTING COMMUNITIES

> Seamless digital connectivity will enhance local community connections ensuring that no one is left behind in the digital age

> Council will shape digital democracy opportunities to generate conversations and collective action in Casey

> Virtual and physical community hubs will facilitate new connections within our community

SMART PLACES & SPACES

> Walking and cycling around our green spaces will be safer, cleaner and greener

> Parks, paths and playgrounds will seamlessly embed smart, digital opportunities into daily life

> Behind the scenes, data sharing and analysis will drive efficient asset management and sustainability

ENVIRONMENTAL SUSTAINABILITY

> Our City will be cleaner, more efficient and powered by data and renewable energy

> Smart technology will amplify opportunities to regenerate our local environment and support climate resilience and mitigation

> Smart technology will be employed to support circular living

INNOVATIVE & DYNAMIC CASEY

> Testing, trialling and experimenting with new technology will support economic, social and environmental growth

> Our curiosity and optimism about technology and innovation will spark growth across Casey

> Council will develop a Smart Casey ecosystem to lead new conversations with a range of partners that lead to smart outcomes

SMART COUNCIL

> Council will lead by example, driving innovation internally and within the wider community

> Smart technology and innovation will transform our people, processes and partnerships

> Council will reach out to the community to drive community centred innovation

CONNECTING COMMUNITIES

OBJECTIVES

Digital Democracy

To build community participation, engagement, collaboration and communication with Council

Equity & Inclusion

To create an accessible and inclusive digital experience for our entire community, including vulnerable people and diverse cultural groups

Community Connection

To enhance community connection powered by digital connectivity and access

PRIORITY INITIATIVES

Foundation

> Partner with experts to promote targeted digital literacy programs to ensure all members of our community have the skills to participate in the digital world

> Lobby the Victorian and Australian Governments for digital connectivity investment throughout the City to improve internet and mobile accessibility including attraction for 5G implementation

> Create virtual community experiences to encourage digital community connection

> Refine existing and trial new digital engagement approaches to support real time community participation to design community led solutions

> Develop a digital inclusion framework that embeds equitable access to digital channels

> Create regular feedback loops about smart city implementation to promote transparency, including mapping the locations of smart infrastructure so residents can see smart city projects in action

Future

> Host interactive sessions and co-design events to encourage residents and local innovators to develop solutions that respond to real issues within the City

> Scale-up digitally inclusive infrastructure such as smart benches and free-public Wi-Fi in high need areas to increase community accessibility to digital infrastructure

COMMUNITY CURIOSITY… ?

Have a think about your friends, family and neighbours – do they all use digital technology to communicate?

Do you know of people in the community who don't have access to digital devices like computers or phones?

What could we all do to support them?

Log on to
Casey Conversations – Smart Casey Launchpad to share and discuss your ideas!

SMART PLACES & SPACES

OBJECTIVES

Developments & Infrastructure

To ensure infrastructure meets the current and emerging community priorities of our growing city by using data and innovation

Safety

To increase the safety of public spaces for all members of the community by leveraging smart planning, data and technology

Mobility

To lead sustainability and mobility initiatives that meet community needs through innovation and smart technology

PRIORITY INITIATIVES

Foundation

> Continue our partnership with Federation University to test, trial and research smart technology across Casey

> Develop a Living Lab to generate smart solutions for community and environmental benefit including safety and mobility

> Implement a real time data network of sensors and other solutions to support innovation and enhanced liveability, planning, and investment.

> Leverage digital technology and real time data to advance the school crossing service

> Develop a Smart Urban Design Toolkit to promote smart city integration in new designs and developments

> Explore innovative tools and data sharing to enhance design and planning processes, and community engagement (e.g. 3D models)

Future

> Support the Safe in Her City project (Casey partnership with Monash University's XYX Lab) with real time data and metrics to increase public safety

> Share and coordinate transport and traffic data with relevant organisations to reduce congestion and develop shared accountability for transport upgrades

> Embed and scale up smart technology that enhances our places and spaces, such as smart lighting, sensors, digital art activations and digital connectivity

> Develop smart spaces and precincts where community members can connect and interact with smart technology to increase curiosity and understanding of smart cities

COMMUNITY CURIOSITY... ?

Where are your favourite places in Casey? How could smart technology make these places even better?

Log on to
Casey Conversations – Smart Casey Launchpad to share and discuss your ideas!

ENVIRONMENTAL SUSTAINABILITY

OBJECTIVES

Circular Innovation

To support the local circular economy to tackle waste, energy and mobility challenges

Climate Resilience & Mitigation

To reduce carbon emissions and build resilience by applying smart technology, data analysis and innovation

Growing Sustainably

To ensure future city planning and development utilises data and research to make sustainable decisions

PRIORITY INITIATIVES

Foundation

> Partner with the community, businesses and schools to explore opportunities to support and integrate renewable energy options

> Work with educators, researchers and the community to develop citizen science initiatives that empower community members to innovate, co-design policy and improve sustainability

> Leverage smart city data to promote sustainable action at a local level, and develop data-led sustainability change

Future

> Partner with industry experts to position Casey as a leader of circular and sustainable waste management

> Create a circular food system plan that leverages productive land for local food production, to support increased liveability, health, economic and environmental benefits

> Commit all smart city projects to be carbon neutral with a stretch target of 50 per cent smart city projects carbon negative

> Develop a policy and plan to facilitate uptake of Electric Vehicles (EV) including Council Fleet and the rollout of EV charging infrastructure

COMMUNITY CURIOSITY...?

What sort of tools and actions could you implement at home to reduce your waste and environmental impact?

Log on to
Casey Conversations – Smart Casey Launchpad to share and discuss your ideas!

INNOVATIVE & DYNAMIC CASEY

OBJECTIVES

Smart City Ecosystem

To build innovation capacity, collaboration and action that enhances Casey liveability

Education

To become a destination for STEAM education, high-tech industries and entrepreneurs

New Jobs & Growth

To attract existing and emerging industries to Casey

PRIORITY INITIATIVES

Foundation

> Partner with industry experts and develop smart business and infrastructure field guides to support smart city integration at a local level

> Collaborate with local education institutions to develop curriculum and co-design sessions

> Facilitate smart city traineeships between local businesses and talent in the education system

> Work with the INNovation Crowd and other groups to create online forums and thought leadership that support local businesses, suppliers and innovators

> Develop the necessary frameworks and platforms to enable open data and data sharing to support education, innovation and entrepreneurship, whilst protecting privacy and security

Future

> Explore opportunities to expand remote/co-working facilities in Casey to encourage flexible work for community and businesses

> Facilitate the ongoing utilisation of data in local education curriculum and business community by scaling up the functionality of open data platforms

> Incorporate smart business innovation awards in the annual Casey Cardinia Business Awards to encourage new and innovative thinking in local businesses

COMMUNITY CURIOSITY...

How can we strengthen our local relationships between business, education, Council and our community to drive smart, innovative economic outcomes for Casey?

Log on to
Casey Conversations – Smart Casey Launchpad to share and discuss your ideas!

SMART COUNCIL

OBJECTIVES

Data-Led Value

To ensure data provides strategic value for Council and the community and is effectively collected, managed and protected to support stronger decision making and innovation

Internal Capability

To integrate innovative thinking throughout Council processes and governance, to increase efficiencies and embed smart city outcomes into policies

Partnerships

To drive policy design and implementation through a productive and constructive smart city partnership environment

PRIORITY INITIATIVES

Foundation

> Develop a real-time open data platform for use by Council and the broader community that is appropriately governed and visualised

> Build a regional smart city advocacy roadmap that attracts new investment and government funding for Smart Casey initiatives

> Provide internal development pathways and training opportunities for staff to increase their technical smart city skills

> Bring emerging technology including Artificial Intelligence (AI), data platforms, 5G and the Internet of Things (IoT) into projects across Casey

> Develop our Data Management Policy and Roadmap to ensure data is consistently and effectively collected, used and protected across Council

> Explore opportunities to sign-up Casey for national/ international agreements, networks and best practice frameworks including Cities for Digital Rights

Future

> Leverage private/public partnerships to deliver investment and raise revenue through innovative funding models

> Design and implement a smart asset management system to increase the efficiency of our facilities and other key assets

> Review procurement policies to support smart city and innovation outcomes

> Explore regulatory and administrative modernisation to support the development of a Living Lab to pilot and scale up emerging technology

COMMUNITY CURIOSITY... ?

What Smart City topics and initiatives interest you the most for building a Smart Casey?

Log on to
Casey Conversations – Smart Casey Launchpad to share and discuss your ideas!

TAKING ACTION

BUILDING OUR FUTURE

Smart investment in Casey will involve planning and policy by Council, collaboration with the community, stakeholders and experts as well as the financing and the implementation of projects and initiatives.

These three elements of strategic implementation depend and feed into each other. Council will develop a smart city toolkit to form partnerships with the community and develop business cases for smart projects.

Partnerships

Include private, public partnerships, community co-design and advocacy

Projects

Includes infrastructure rollout, capability and training, test beds and programs

Policy

Includes frameworks and policy documents to guide decision making

SHORT   MEDIUM   LONG

TECHNICAL PRINCIPLES

We will employ the following principles to guide the delivery of smart technologies and services.

DATA POWERED

> We leverage data to inform decision- making

> We measure progress through new data sets

CONNECTIVITY

> We advocate and build capacity for our community to ensure they can physically and digitally connect

PRIVACY AND SECURITY

> We apply best practice standards and work with our local community to safeguard privacy and security

INTEROPERABILITY

> We work to optimise technology system compatibility to drive synergies and efficiencies across our digital systems

ETHICS

> We think deeply about digital technology, aiming to complement the ethical standards and expectations of our community

PARTNERSHIPS & COLLABORATION

Partnerships are an integral part of smart city success because they drive collaboration, co-design and the sharing of experience and knowledge. The City of Casey welcomes partnerships and collaboration to imagine, design and build our smart city.

ROLES & OPPORTUNITIES

The smart city engagement process identified several key sectors in which such a partnership would be beneficial for smart city progress. The table over page identifies these sectors, the role they can play in smart city development and how Council can work with them to support smart city activity.

Sector	Sector Role	Council Role
Community	> Actively participate and explore the benefits of smart technology and innovation > Continue to build digital skills and understanding whilst supporting others to do the same	> Hold co-design events to build excitement for smart cities and innovation > Seek ongoing feedback and engagement to ensure smart city solutions are meeting community needs
Businesses	> Continue to build a strong, coordinated and collaborative business network > Build skills and capacity to integrate digital technology and innovative practices into businesses	> Facilitate local business networking events to encourage innovation and knowledge sharing > Design support programs to build the digital skills of businesses
Education	> Build skills and knowledge to support smart city growth through dedicated smart city curriculum > Hold events and challenges that encourage the use of data and other smart technologies	> Develop open data and data sharing to support innovation and entrepreneurship > Hold co-design events to workshop innovative solutions to real city problems
Innovators	> Develop an innovation network/community to encourage collaboration and knowledge sharing > Champion innovation in the City of Casey	> Develop co-working spaces and innovation hubs > Host innovation events to build innovation capacity and support local innovators > Support diverse innovators across the municipality to harness and operationalise innovative practice through inclusive digital support and partnerships
Sustainability	> Leverage data to improve efficiencies in environmental monitoring and analysis > Champion smart cities for sustainability in Casey	> Set guidelines for smart tech integration and sustainability > Collaborate with other Councils and Governments to drive better sustainability outcomes
Transport	> Share and coordinate transport and traffic data with relevant organisations to reduce congestion > Leverage data and smart technologies to improve planning outcomes > Lead new projects that solve local transport infrastructure challenges	> Share and coordinate transport and traffic data with relevant organisations to reduce congestion > Enhance parkways and cycleways to support and promote active travel
Developers	> Embed digital technology from planning and throughout developments > Implement smart city best practice > Invest in smart city capacity building and training	> Update planning processes and requirements to improve smart technology integration > Hold a smart development summit to build awareness, understanding and buy-in
Employers (big industry)	> Explore remote and flexible working options > Expand businesses to Casey area	> Develop innovative industries attraction roadmap to bring big employers to Casey > Explore incentive opportunities for innovative local employers

HOW TO BECOME A SMART CITY PARTNER & CHAMPION

Include smart technology and digital aspects in proposals and tenders to City of Casey

Bring forward proposals to test and trial smart technology in the City

Collect and share city data, and encourage the use of data to support innovation

Develop an innovation network to bring new ideas, technologies and disciplines together in Casey

Promote and support smart city training and development to increase capacity and capability across your organisation and community

Attend smart city events and actively develop and participate in the local smart city ecosystem

Proactively foster business relationships that work towards building our smart city profile and brand

MEASUREMENT DASHBOARD

As with all programs, Council will regularly monitor and measure the progress of the Smart Casey Launchpad. This will ensure Council remains focused on the objectives of the Launchpad and can support decisions to prioritise, scale up, recalibrate or pivot actions and projects.

The following dashboard sets out the areas that Council will measure.

INPUTS

> Smart city investment

> Size of smart city team and number of Council staff with smart city involvement

> Size of the innovation ecosystem (smart city partners and collaborators, education institutes and others)

ACTIVITIES

> Number of projects being designed, developed, scoped and out for tender

> Number of collaboration/ networking sessions run

> Number of partnerships being coordinated/ supported

> Data sources actively being collated

OUTPUTS

> Completed foundation projects (sensors, networks, data storage)

> Completed activation projects (projects that provide services/ efficiencies)

> Adoption and updating of internal smart city process and technology standards

> Internal and external digital capacity-building and access initiatives delivered within Casey

COMMUNITY.
INNOVATION.
LEADERSHIP.
SMART.
SUSTAINABLE.

IMPACTS

> Community awareness, use and satisfaction with smart city services/ initiatives

> Savings across Council delivered through smart city initiatives

> Grants and revenue generated through smart city performance and projects

> Data collected and analysed

> People (cohorts, sectors, CALD communities and vulnerable people) utilising smart city services

OUTCOMES

> Liveability – as measured by Local Government Victoria's Liveability Index

> Economic innovation and performance – indicators including youth employment, employment, containment rates and business entries

> Environment and sustainability – indicators including household solar, green space, and resource usage

> Safety – crime statistics and safety perception (percentage of people who feel safe walking home alone at night)

> Trust and participation – trust and support of local government survey/participation in Council community engagement corresponding to population demographics

> Social inclusion and connection index

> Digital inclusion index

SMART CITY MATURITY

The City of Casey will lead by example throughout our City's smart transformation. We aim to become a leading smart city organisation – one that will catalyse innovation, drive collaboration and facilitate action and research.

This section highlights the internal 'readiness' of Council to lead smart city action and details how we will maintain performance quality and high-levels of accountability.

> Leadership & Governance

> Strategy & Policy

> Smart Regulation & Business Processes

> Budgeting & Financing

> Community Engagement & Co-Design

> Skills, Culture & Innovation

> Collaboration & Partnerships (internal & external)

> Data Management, Cyber Security & Privacy

> Smart Services

> Smart Infrastructure

The City of Casey is at the beginning of its smart city journey; however, we have considerable smart city pilot experience that will help us to quickly transition from 'beginning' through 'developing' into 'embedding' by breaking down internal silos and developing formal, cross-Council smart city processes.

BEGINNING

There is some basic smart city systems and processes in place but they're generally ad hoc, with little wider awareness

DEVELOPING

There are coordinated basic processes and systems in place with growing awareness and receptiveness to smart city principles and practices. Smart city and innovation barriers are being addressed and modernised.

EMBEDDING

There is strong leadership and coordination of smart city integration. Innovative practices and smart city thinking are generally accepted across Council and community. Council is facilitating and engaging in pxartnerships and collaborative ventures.

LEADING

Smart city practices and innovation are integrated within Council as business as usual – encouraging reform and modernisation, partnerships and collaboration and ubiquitous smart city technology and services.

NEXT STEPS

Implementation & Action Planning

This Launchpad will be supported by a dedicated Smart City Action and Implementation Plan. This Plan will guide specific action and investment over the next four years. It will specify key internal system updates designed to break down silos and maximise efficiency.

Engagement & Communications Plan

Council will prioritise engagement and transparency throughout implementation to increase buy-in, investment and momentum. This will also ensure policy remains agile, responsive and targeted.

Funding & Financing

Council will develop project business cases, funding plans and revenue goals to support the long-term sustainability of smart city initiatives

Capability Development Plan

Council will develop a plan to increase internal capability through training, knowledge sharing and hiring. This plan will ensure Council innovation is supported over the long term.

Innovation Maturity Model

Council will build innovation maturity into the organisation through a measurable model that will focus on internal, Council innovation growth.

Partnership Model

A partnership model will be developed by Council to guide, support and improve future collaboration. It will focus on both direct partnerships of Council and growing the broader Casey innovation ecosystem.

SMART CITY GLOSSARY

Smart city: *A city that applies digital technology, data and innovative practices to improve liveability, sustainability, collaboration and economic opportunities.*

Big Data	The use of technology (especially sensors and networks) to collect, manage, analyse and utilise large volumes of data.
Artificial Intelligence	AI or machine learning is the programming of technology to analyse information and take 'human-like' action such as problem-solving or pattern identification.
Circular Economy	A system of production and consumption designed to eliminate waste through rec-cycling, re-use and reduction.
Community Centred	Approaching Council service delivery from the perspective of the community to ensure their needs and expectations are met.
Co-Creation/ Co-Design	Working with clients, communities and customers to design and create services/solutions that meet user expectations and needs.
Connectivity	The breadth depth and quality of telecommunications and internet infrastructure, networks and services.
Co-working	The mode of working where a mix of individuals, innovators and organisations work in the same physical location, sharing space, ideas, technology and motivation.
Digital Democracy	The use of digital technology to modernise democratic processes and institutions and facilitating participation in debate and decision-making.
Digital Literacy	The skills and capabilities to effectively and confidently use digital technology.
Entrepreneur	A person who creates, innovates, invests and takes on risk aiming to commercial profit.

Innovation	Doing something different with the aim of improving processes and outcomes.
Innovation Ecosystem	The network of people, institutions, programs, regulations, culture and resources that work to promote innovation
Internet of Things	The millions of physical devices around us connected online, sharing data - from tiny weather gauges up to super computers –this is the fabric of the digital world around us
Liveability	The general perceptions of the quality of life living in a particular area. Take into account accessibility, safety, inclusion, local services and the environment.
Local Services	Public services provided by the local government (eg Parks, parking, planning, rubbish collection).
Open Data	Making data more accessible and useable to enhance transparency, innovation and community outcomes. Note sensitive, confidential and private data will remain secure.
Place Activation	Integrating new and innovative enterprises and projects to attract and retain people to underutilised public spaces.
Red Tape	Inefficient legislation, regulation or business processes that inhibit innovation and place undue cost on the economy.
Smart Technology	Digital networks, sensors and systems that support the delivery of smart services and assets
Sustainability	The protection and maintenance of environmental resources

SMART TECHNOLOGY

Below are a few examples of smart city technologies/projects from around the world, to help start the discussion.

+ Smart Street Lighting

Upgrade of street lights to LED and smart controllers are delivering huge savings in energy costs and greenhouse gas emissions. They also improve amenity and safety for the community.

+ Smart Parking

Sensors and communications networks provide real time information about parking availability to make it easier for residents and visitors to find parking when and where they need it.

+ Digital Inclusion

Digital inclusion is critical to maximising and sharing the benefits of the digital revolution. Free public Wi-Fi, digital training sessions, and online-safety courses help to ensure everyone in the community can participate and benefit.

+ Smart Waste

Sensors and big data analytics are allowing councils to optimise waste collection, reducing over-flowing bins and unnecessary trips to pick-up half empty bins.

+ Digital Utility Metering

Smart water/gas/electivity meters provide real-time information to residents and utilities, allowing the community to better manage energy and water consumption, and reduce costs.

+ 3D Town Models

Cities and towns are using big data and computer programs to develop accurate 3D city models that improve city planning outcomes and community co-creation.

+ Smart Working Hubs

Dedicated spaces for remote working and innovation can help to retain and increase employment in cities, and generate new local products and services for national and international markets.

+ Open Data

Smart cities are fuelled by access to data, and governments have some of the most valuable data sets, often not easily available to the public. Opening up government data supports innovation, participation, research and transparency.

+ Digital Networks

New (narrow band) communications networks, which everyone in the community can connect to, are driving innovation in collection of data, the Internet of Things, research, collaboration and real time information. By way of example, a local community garden could install battery-powered sensors to measure soil moisture, which talk to the narrow-band communications network, and help members to optimise watering.

+ Living Labs

Promote testing of innovative technology and services on the streets of the city itself. Right around the world - in cities like Barcelona, Copenhagen, San Francisco and Seoul - these Living Labs are being used by local innovators, researchers and entrepreneurs to trial and evaluate new solutions and ideas to help drive economic growth and better city outcomes.

+ Digital Democracy

Digital technology is a powerful platform for deeper and broader conversations between the community and governments. Mobile voting, participatory budgeting, open data, and online consultation forums are providing greater opportunities for residents to have their say, and co-create the cities they want to live in.