MARCH 2019

CONNECTED HOBART

TOWARDS AUSTRALIA'S MOST ECONOMICALLY, SOCIALLY, AND ENVIRONMENTALLY CONNECTED COMMUNITY BY 2030

City of HOBART

Smart Cities
CITY OF HOBART

Smart Cities
CITY OF HOBART

DRAFT

PREFACE

A Smart City is not a physical entity. You can't buy one. Nor is it about constructing a futuristic robotic metropolis. A Smart City is a very important, but conceptual, global framework.

It provides an approach for city administrators and service providers to address the most significant changes to the world's transport, energy and communication infrastructures since the Industrial Revolution of 1760 to 1840.

Only 200 years ago, the power loom, machine tools and steam power were new inventions that revolutionised human societies. Now, we are seeing even more far-reaching changes to transport, energy and communications. Guiding and responding to these changes is fundamental to creating a safe, productive, inclusive and economically flourishing future for all of the world's major cities and metropolitan areas.

These new developments provide an ability for aging city infrastructures to be upgraded or replaced with contemporary solutions that talk to us – and each other, anywhere in the world – through new data and information technologies. The stories they share help us improve city, urban and metropolitan life in truly transformational ways.

Wrapped neatly within this global shift are opportunities to address the many specific challenges and concerns that exist within our local neighbourhoods, businesses, schools and industries. In this sense, Smart Cities is a blueprint for how we will face the challenges of future centuries.

These challenges underscore why thousands of cities the world over - including Hobart - are now turning their attention to developing their own Smart City strategies. We need an individual approach to make sure our city has relevant solutions that help Hobart to continue to be a great place to live, work, study, and visit.

THIS CHANGE IS HAPPENING NOW, AND IT'S HAPPENING ON OUR WATCH.

We can find solutions to our big challenges by first establishing, and then working within, a new strategic decision making framework for Hobart. That framework needs to include improvements to the way we operate as a council and how we partner and share resources and information with other custodians. With these improvements, we can succeed for the mutual benefit of all stakeholders.

The ultimate future benefits for the city will be tremendous. But, as with the original transformative period of the Industrial Revolution, it will take time. Transforming the Hobart region's communications, energy and transport systems is a big feat. But we will take smaller and more visible steps along the way.

All that we do will be aligned with our community aspirations, outlined in Hobart: A community vision for our island capital, and which are reflected in our Smart Cities objective to be the most economically, environmentally and socially inclusive capital city community in Australia by 2030.

WELCOME TO CONNECTED HOBART.

DRAFT

WELCOME TO CONNECTED HOBART

Hobart is at a significant tipping point in its history. Local government is increasingly being asked to consider both local and global change, responding to what's happening now and planning for what could happen in the future. While a lot about innovation is exciting, the government also has an obligation to make decisions in the best interest of all its communities.

Smart Cities is a structured approach to urban management that uses data to inform decision-making. Over the past several years, it has rapidly gained in popularity across the world, with strategies and projects happening in cities from Singapore to Barcelona to Chicago.

Examples of Smart Cities in practice include sensors to measure air quality, drones to assess conservation values in remote areas, and artificial intelligence to help find and analyse more information quickly.

These highly visible 'new' technologies are made possible thanks to fundamental changes in the underlying communication, transport and energy networks that connect the world.

Government decision-making is often reactive. With the data produced by Smart Cities infrastructure, there is an opportunity to see the world a bit differently, to listen to our city in new ways. Some of the city's most pressing challenges require forward-thinking, which can only happen with good information and tools for decision-making.

Connected Hobart aims to pay homage to one of Hobartians' most treasured qualities about their city: that 'connections between nature, history, culture and each other are the heart of our city'. Our Smart Cities decisions should reinforce, not undermine, what people most love about this place. At the same time, communities and local government need to embrace the fact that the world will continue changing and that these changes will influence our lives. We want to use Smart Cities to make us actors, not observers, in that revolution.

Connected Hobart is the City of Hobart's response to the current trends and future possibilities of Smart Cities. It comprises a framework and action plan that will be used to guide local government innovation in Hobart for decades.

Smart Cities uses infrastructure to produce data that can improve services and other aspects of city life. The *Connected Hobart* program is a way of understanding how we will adapt to change, embrace new opportunities and channel the city's evolution towards ever-more positive outcomes for Hobart communities.

Connected Hobart was created in consultation with cross-industry representatives from around the country, as well as major stakeholders and community members within our city. City of Hobart staff from all kinds of fields – from parks to traffic to community programs to infrastructure – took part in bringing it together.

In its most basic form, a Smart City uses infrastructure to produce data that can improve services and other aspects of city life. We want that for our city. The *Connected Hobart* program will provide a way of understanding how we will adapt to change, embrace new opportunities, and channel the city's evolution toward ever-more positive outcomes for all Hobart communities.

DRAFT

MESSAGE FROM THE LORD MAYOR TBC

FRAMEWORK

This document, the *Connected Hobart Smart City Framework*, lays out the architecture for Smart Cities decision-making in Hobart. It provides our definitions for the important components of a Smart City and what they mean for the city so people will better understand the intent behind each significant infrastructure and innovative decision we need to make. The framework responds to both exciting and concerning trends associated with this latest industrial revolution and acknowledges the importance of dealing directly with this tension.

ACTION PLAN

The action plan is operational: the framework in practice, in the real world. It has over 50 specific projects. Some are large and some are small. All of them start to move us through this period of inevitable change and support the intent described in the *Connected Hobart Smart City Framework*.

DRAFT

HOBART'S IDENTITY

CHECKPOINT

- How does your idea or opportunity reflect Hobart communities' values and aspirations for the future, as explained in *Hobart: A community vision for our island capital*?
- How does your idea or opportunity reinforce the objections in the City of Hobart's strategic plan, which is Council's practical response to the community vision?
- How does your idea or opportunity help Hobart respond and contribute to our Smart Cities agenda in a way that is relentlessly 'Hobartian'?

OUR ISLAND CAPITAL

Hobart is one of the most remote capital cities in the world, on the edge of an island on the edge of the Southern Ocean. It is a city whose borders are drawn by its waterfront and bushland, with *kunanyi* / Mt Wellington and the River Derwent as its most striking landmarks.

The Hobart region is home to tens of thousands of years of *palawa* people's – Tasmanian Aboriginal people's – continuing culture. Our city is also filled with heritage buildings and reminders of our more recent history. Our communities are known for their connectedness, and many people love Hobart's cultural life and smaller scale relative to other Australian capitals. Hobart is a Tasmanian city, and many Hobartians are proud of the creativity, inventiveness, resourcefulness and entrepreneurial spirit that the island is known for.

From those who have been in Hobart for generations to those who have only recently arrived, there is nowhere else many of us would rather live. Like any other city, it's not perfect, but Hobart is a special place, and it's home.

We have a responsibility to who we are and could be. We believe a strong state needs a strong capital. This identity is what we have the chance to enhance, share and evolve. It's what is at stake as we move into the future.

HELPING US ACHIEVE CONNECTED HOBART

Successful Smart Cities are inclusive by nature. Ideas can come from anywhere – both from within the city government itself or directly from the community.

We welcome all ideas. So what can you do if you have an innovative or Smart Cities idea for Hobart?

You will see that each part of the *Connected Hobart* framework has three questions to consider (in the boxes marked with lightbulbs).

Once you've satisfied yourself that you've answered those questions, share your thoughts! If you're a member of staff, get in touch with the City Innovation Division. If you're an industry stakeholder or community member, send your idea to the team at **yoursay.hobartcity.com.au/smart-city**.

DRAFT

A GLOBAL IMPERATIVE

CHECKPOINT

- How does your idea or opportunity apply the *Connected Hobart* definition for Smart Cities?
- How does your idea or opportunity link to the three layers and components within the *Connected Hobart* Smart Cities framework?
- How does your idea or opportunity consider more than just technology as a means to a (well-defined) end?

SMART CITIES DEFINED

Cities often adopt a Smart Cities agenda without deeply considering what they mean by the term, mainly because there is no easy definition for Smart Cities. To avoid confusion about what Smart Cities could mean for Hobart, we've kept it simple:

Our Connected Hobart Smart City is one that combines human ingenuity with technological innovations to enhance quality of life for all.

We're interested in an approach that understands that cities should not simply use modern gadgets and conveniences to become more efficient and economically competitive. We do not assume that simply adopting new technologies will solve urban problems or that cities require the newest and latest to be 'smart'.

While ensuring we do have adequate access and amenity to contemporary versions of the world's three core networks - communications, transport and energy - this kind of definition doesn't go far enough in assuring technology is just one part of a Smart City.

Other cities have defined Smart Cities more generally, arguing that a 'smart' city is one that can sustain its future and enhance quality of life. This wider definition is more inclusive of different perspectives and needs but unclear on what that involves.

In practice a Smart City is a sum of many parts: and it must have all to succeed. At the City of Hobart, we've distilled this jumble of definitions and moving parts into just three simple layers.

LAYER 1

Smart Cities Strategic Drivers

The global economy is, by definition, interconnected. And it is currently in the process of transforming much of the existing 19th and 20th Century communication, transport and energy technologies that underpin modern society. These age-old technologies are being digitised and transformed at revolutionary speed into three new networks: the Communications Internet, the Energy Internet and the Transport Internet. Cities must adapt in order to continue operating city assets and infrastructure through the 21st Century and into the 22nd.

DRAFT

LAYER 2

Smart Cities Components

Six core components allow a city to individualise and adapt a Smart Cities approach to its unique context. Together, they create a Smart Cities model for Hobart: Greater Hobart Challenges, Technology and Asset Choices, Big Data Stewardship, Greater Hobart Custodians, Decision Making Principles, and Connected Hobart Programs.

LAYER 3

Smart Cities Objectives

Every city must have a clear objective that defines its destination, and how Smart Cities will take it there. Our objective for Connected Hobart is to be the most economically, environmentally and socially inclusive capital city community in Australia by 2030.

These three layers collectively make-up the *Connected Hobart Smart City Framework*. It is within Layer 2 (Smart City Components) that cities are finding the greatest opportunity to differentiate and deliver specific outcomes for their communities. So, too, it is those areas that are the most deeply described within the rest of the framework.

DRAFT

CONNECTED HOBART FRAMEWORK

PAGE 10

THE CHALLENGES WE FACE

Smart Cities can help us find new ways to deal with some of our biggest challenges.

PAGE 12

TECHNOLOGY CHOICES

Technology is part of what makes us human – but it is only a means to an end.

PAGE 13

BIG DATA STEWARDSHIP

Larger and larger data sets provide new insights into our world – but they are a precious resource that we must manage well.

CONNECTED HOBART COMPONENTS

OUR CITIES PRINCIPLES

Every choice we make says something about what we believe; every Smart Cities choice should consider the best interests of our world.

PAGE 14

HOBART CUSTODIANS

It takes collaborative relationships with community members and partners to maximise the benefits of Smart Cities.

PAGE 16

PROGRAMS

Our Smart Cities initiatives match up with the aspirational pillars in the community vision, they reflect what the people of Hobart want for their city.

PAGE 18

DRAFT

THE CHALLENGES WE FACE

CHECKPOINT

- What Hobart 'problem' does your Smart Cities idea or opportunity solve?
- What global trends does it respond to?
- How does your idea or opportunity think beyond the obvious to what could be?

ADDRESSING BIG PROBLEMS

For all the great things about Hobart, there are challenges facing our city. Some of them have persisted over generations while others are just on the horizon. Others we don't even know about yet. Some are local impacts of global challenges and some are unique to us.

The City of Hobart's responsibilities go well beyond roads, rates and rubbish. Council needs to act for the wellbeing of the community, for today and the future.

LOCAL

There are many **challenges in our daily lives** that we will be better placed to solve through the Connected Hobart program. For example:

- How can we better manage waste?
- How can we maintain high air, water and road quality?
- How can we protect ourselves from fires, floods and other disasters?
- How can we make sure everyone has a safe walk, ride or drive to and from work or school?
- How can we enhance our night-time economy?

REGIONAL

Similarly, as part of a community of connected cities, the global reach of the Smart City concept means that Hobart will be able to collectively grapple with many **common big picture challenges** but within our own context. These include:

- How can we provide affordable housing for all?
- How can we welcome visitors to our city and still keep our sense of place?
- How can we bridge social and digital divides within our communities as technology advances?
- How can we increase usage of public and active transport and reduce traffic congestion?
- How can we manage Hobart's increasing role as a capital city, which has finite resources but also provides services for commuters and visitors?
- How can we support equitable growth across all the city's retail and urban precincts, and not just in the city centre?
- How will the Greater Hobart City Deal affect the Hobart region?

DRAFT

NATIONAL/GLOBAL

To better understand and deal with these issues, we have to think beyond how things are now and how we usually react. We need to think **about possible future challenges** and how we might respond, and what we can do differently and better, for example:

- What will we do when the tourism boom ends?
- How can we enhance the quality and health of our natural environment, especially in the face of climate change?
- What choices will we need to make about Hobart's bushland as natural disasters increase in frequency and intensity?
- What changes might we see in Hobart if there is an influx of new migrants?
- How will we respond if air travel and freight suddenly become prohibitively expensive?

None of these problems has a single, easy solution. But more importantly, conversations about how to solve them are being held in the new international language: data. Without having better information to understand our problems, we will have little guidance at home, and little chance of keeping pace with significant national and international communities.

TECHNOLOGY CHOICES

CHECKPOINT

- What technologies does your idea or opportunity involve?
- How has your idea or opportunity balanced optimism and caution about new technologies?
- What new problems might your idea or opportunity cause?

WHAT MAKES US HUMAN

To really understand Smart Cities and what it could mean for Hobart, we need to think about two of the core components: technology and the data we get from it.

The dictionary definition of technology is: 'a practical application of knowledge, a way of accomplishing a task'.

When we think of technology today, more recent inventions like smartphones and social media come to mind. But technology is really any tool that humans use to help us get things done. We still get daily benefits from tea towels and push bikes, even though more advanced alternatives exist.

In thinking about using technology to solve a problem, we need to think about whether the most advanced solution is really the best solution, and what new problems the solutions themselves could create.

We are living in a time of notable speed and scale of change. Although humans have been creating and adapting to new technologies since we have existed as a species, today these advances are leading to far-reaching questions about what they mean for our future.

Some of us are very optimistic about what new technologies could do for us. They can save us time and bring convenience to our lives. They can make complicated tasks simpler and easier. They can offer solutions to problems we've never been able to solve. They can provide security and instant connection to people and information. They can give us freedom and bring a bit of magic to our lives. They can reduce costs. They are the next logical step in human evolution.

Some of us are more cautious about new technologies. They can take our time instead of saving it. The solutions they present can create new, unintended problems. They can be second-rate substitutes for more meaningful interactions and experiences. They make simple things complicated and create new risks and vulnerabilities. They can take away our privacy and our ability to do even simple tasks ourselves. They can cost a lot. They can undermine our humanity.

Many of us sit between these extremes and maybe believe a bit of each. This tension is healthy for our society: we need both in order to progress in ways that add value to the world.

As such, this framework is not just about the technologies that will come to sit atop the world's new communication, transport and energy internets. It is about how we make decisions about potential solutions to some of our most pressing concerns, and in what ways we use technology, assets and new civil infrastructure to help us.

DRAFT

BRINGING NEW INSIGHTS

Many recent advances in technology have dramatically increased our ability to collect information in the form of data, especially using sensors (devices that detect and measure or respond to a stimulus, such as light, sound or movement) and the internet.

Sensors are increasingly embedded in everything from smartphones to rubbish bins. Using network technology, sensors can transmit all kinds of data about things such as movement patterns (such as Google Maps) and air quality. They allow us to talk to things and those things to talk to us. Unsurprisingly, then, these networks of sensors are called the Internet of Things (IoT).

Although these devices are capable of collecting and producing information in the form of computer data, it doesn't mean much unless we ask the right questions about it and analyse it in ways that are relevant to the context where the lessons will be applied.

Data by itself is an unrefined product and needs to be analysed well in order to lead to any meaningful insights that can help drive change and find solutions to our challenges.

The capacity for data to provide insights, and thus more relevant products and services, makes it extremely useful and valuable to cities. And the widespread use of sensors and the internet means that there is more of it than ever before, and that there is highly detailed information about specific groups of people and even individuals.

In particular, there are many ways to create and share geospatial data – data that links information with specific locations. Geospatial data is especially important for Smart Cities because it helps drive change in and across particular urban locations while also being easier for the public to consume compared to spreadsheets and reports.

The value, abundance and detail of the kind of curated data we now have makes it a precious resource that can transform how we live, work and learn. But we also need to handle it with care and make sure we use and store data in ways that lead to positive outcomes for individuals and communities across Hobart.

BIG DATA STEWARDSHIP

CHECKPOINT

- What data will be collected as a result of your idea or opportunity?
- What systems for analysing and protecting the data have been or will be put in place? Are they appropriate and effective for your idea or opportunity?
- How will the data be explained and shared so that all different kinds of people can understand, learn from and use it?

DRAFT

DECISION MAKING PRINCIPLES

CHECKPOINT

- What ethical position does your idea or opportunity take?
- How does your idea or opportunity reinforce the principles for the robots?
- How does it reinforce the principles for humanity?

THE BEST CHOICES FOR OUR CITY

Revolutions in society, like evolution in technology, push humankind to the edge of our abilities, creating things the world has never known. Thus, we need to monitor our motivations and make sure we have the world's best interests in mind.

We are pushing into the unknown and so need to consider the intended and unintended consequences of our actions. For example, who could have predicted the unintended consequences of social media? What kind of social, economic, or environmental impact could digitising and connecting the global energy grid have on our city? What are the consequences of a more automated workforce?

Smart Cities deal with technological change, with the potential to both create and resolve some of the issues that people are least knowledgeable and most worried about.

Every decision we make today involves technology on some level, and thus shows our ethical position on technology decision-making. The Connected Hobart program operates within a set of principles that define and guide decision-making. Its initiatives reflect the hopes and fears about new and unknown things that we heard from the people of Hobart. And they reflect the current major debates about ethics in technology decision-making.

Unless otherwise stated, when reading these principles, it might help to remember that Connected Hobart considers technology as any tool that humans use to help us get things done – from chairs to lights and even buildings, cars and bridges - not just more recent inventions like sensors, smartphones and drones.

PRINCIPLES FOR THE ROBOTS

1. We will ensure smart technology is actually smart. From procurement to managing and integrating data between systems, we will make sure different technology systems work together. Our commitment to interoperability will ensure that Council investments in smart technologies are well made and user experiences are above expectations.

2. We will share the benefits of smart technology. Technology can enable a better future for all kinds of people and organisations, whether in government, businesses or across Hobart's neighbourhoods. All of us can learn through trial and testing, by sharing open data, or by enshrining the value of personal trust and security in every decision. We will make sure every opportunity is beneficial to more than just Council or a single user group.

DRAFT

3. We will plan using smart data, with the result in mind. Data will drive our decision-making. We will take the time to research and find the right questions to ask. We will take a scientific approach, testing hypotheses rather than working from assumptions. We won't be able to predict the outcome but that's the point: we areopen to being surprised by the results and flexible enough to change as we discover new things about our city. Technology-enabled data will improve our ability to sense and respond to, or predict and act on, Hobart's ever-changing needs.

4. We will fail or succeed fast and in a structured and repeatable fashion. That's agile development: the ability to truly innovate and make progress requires acknowledging and learning from failure. We will fail fast and succeed fast, but in a structured and manageable way.

5. We will ensure smart technologies demonstrate forward flexibility. The city will avoid proprietary and closed systems and unintended supplier lock-in. These innovation inhibitors quickly change agile organisations into rigid businesses, costing self-driven strategic direction and operational control.

PRINCIPLES FOR HUMANITY

1. We connect innovation to values. Innovation is the execution of new ideas that create value for the city and are recognised by the community as important, relevant and timely. It is not all about shiny new things, which are just a means to an end. We aim to encourage the best and avoid the worst of technological advancement, acknowledging that we don't control everything.

2. We use new solutions to augment and enhance the human. People are indispensable. We consider how advances in society affect people's livelihoods and how people can flourish in a world that is increasingly uncertain. Our choices give people dignity, agency and control of their lives. New solutions help us to transcend our limitations but we remember what our lives would be like without technology. We gain skills rather than surrender our capacities to the machine. New solutions make our lives better, not just easier.

3. Our choices bring clarity and meaning. We create environments where truth can flourish, where people can learn to understand each other, rather than become divided by misinformation. Technology, assets and infrastructure – and the data they create – enable citizen engagement and awareness of important issues.

4. We live in the real world. Our experiences online translate to meaning in physical reality – and can seem indistinguishable. People become more instead of less connected. Innovation brings out the best in us. We are encouraged to interact with our environment, as actors not just observers. We consider that technological advances in society are happening at the same time as resilience in many natural and social spheres – globally and within our own communities – is decreasing. We respond to these needs.

5. We honour and protect people's privacy and attention. We ensure good governance, handling data like the precious resource that it is. We recognise that when people use connected assets and infrastructure, they trust that their data will be managed well. We help people understand what they're signing up for. We ensure that someone is always asking 'why'.

6. We don't try to remove all mystery from the world. We balance what is technically possible with what is socially desirable. We aim to make information accessible but not overwhelming. People need a sense of freedom and the unknown – some element of surprise – for life to be meaningful.

7. We use tension as a strength. Sometimes, we have to deal with tension in innovation decision-making, relinquishing some of one value to achieve more of another, for example, sacrificing some privacy for convenience. We balance our value of history and heritage with the desire and imperative to innovate. We are deliberate, methodical and intentional in how we make these choices. We consider unintended consequences.

8. We make innovation accessible, bridging the digital divide. Innovation has the potential to divide people and has done so many times in the past. It affects the ways people work, live, study and communicate, and the rapid pace of change can leave some feeling left out or left behind. We work to make sure people are included and able to keep pace with changes in technology.

9. We create opportunities for people to participate. We think of service and social change as a way of increasing meaningful participation in our city and the world. Anyone, not just experts, can collect and use data. We support citizen data scientists from all sectors, backgrounds, ages and demographics. We're in this together.

10. We work in partnership with people and organisations. Many of our problems are shared problems, with shared solutions. Wherever possible, we work with businesses, community, government and academia to learn and act.

DRAFT

HOBART CUSTODIANS

CHECKPOINT

- Which customers does your idea or opportunity serve and how?
- Which partners will be involved and how?
- How does your idea or opportunity bring more than one stakeholder together and solve mutual 'problems'?

BENEFITS WE CAN ALL SHARE

Cities are complex ecosystems, involving many people and organisations. True Smart Cities solutions attempt to involve customers, government, industry and academia in the design process, and provide an opportunity for everyone to step out of their own experiences and find ways to move forward together – especially where common challenges intersect multiple organisations and service providers. *Connected Hobart* thinking recognises that, even though these entities might seem separate, many of our needs and motivations overlap: in many ways we are all custodians of the same city, and the complexity of many of the issues we face requires us to work together. The problems we share can be tackled once.

OUR CUSTOMERS

Connected Hobart has people at its core. And because Hobart is a state capital, our city has to constantly consider the needs of numerous customer groups including:

- Hobart residents and ratepayers
- Greater Hobart commuters
- Visitors and tourists to Hobart and Tasmania
- Hobart businesses and their employees

Within each of these groups, further shared interests connect people across family, cultural, business or professional, recreational, religious, political and neighbourhood communities. Each individual may also be a member of many overlapping communities. Our diversity as a city is important to consider in thinking about which customer group our many *Connected Hobart* initiatives aim to serve. Some will touch all, some many and others few. The important thing to remember is that our destination is the same: to be Australia's most economically, socially, and environmentally connected community by 2030.

OUR PARTNERS

In the new economy – where structural change across the world's transport, energy and communication infrastructures is digitally connecting us all – working with partners is no longer just a nice thing to do. It is a new imperative to ensure our individual decisions enhance rather than detract from the outcomes of others. New partnerships will allow the city to help each other solve problems that affect each of us and our shared customers. Through *Connected Hobart*, the City of Hobart will enhance its partnership programs beyond our existing relationships, including:

DRAFT

- State and regional local governments including sister cities
- Utilities and government business providers
- Commercial technology providers
- Businesses, their peak industry bodies and associations
- Educational institutions and their student bodies.

New partnerships – be they collaborative, commercial or otherwise – have a key role to play in the Connected Hobart program.

OUR GOAL CAN ONLY BE ACHIEVED THROUGH ENHANCING THE SERVICES AND EXPERIENCES OF THE PEOPLE INTERACTING WITH OUR CITY.

PROGRAMS

CHECKPOINT

- Which *Connected Hobart* program does your idea or opportunity belong to?
- How does your idea or opportunity reflect the corresponding pillar of *Hobart: A community vision for our island capital*?
- What other pillars might it reflect?

CONNECTED HOBART ACTION PLAN

Futuristic cities are being built right now. But that's not what the *Connected Hobart* program is about. It is about preparing our city for the future. Some of that will involve the structural reform to our existing assets and infrastructure that contemporary communities expect of their city governments. And there are many ways that Smart Cities technologies can help us address improvements to traditional rates, roads and rubbish problems while also keeping an eye on some of Hobart's major challenges.

Hobart: A community vision for our island capital was created in collaboration with Hobart communities and businesses, and spells out what people want for their city. As a city, our future is tied to that vision, so it is fitting that Connected Hobart's many initiatives be tied to the vision, as well. Accordingly, we have aligned our *Connected Hobart* programs with the pillars and aspirations outlined in the vision with specific projects for each program subsequently described in the *Connected Hobart Smart Cities Action Plan*.

Smart Cities good practice can't be learned from a book. Nor can we sit by, as a capital city and watch and learn from others. That hasn't always worked well for Tasmania in the past. Innovation involves adopting and trying and sometimes failing at new things together – hence the focus on trials in many of our projects as too the focus on targeted initiatives unique to our city.

1

CONNECTED PLACES AND SAFETY

Initiatives that extend and capitalise on planning investments in the built environment, improve operational and future planning, and establish a baseline for digital and social equity and public safety and security across the city.

SENSE OF PLACE

We are a city of unique beauty, environment, heritage and people, built on a shared sense of ownership, pride and wonder. This spirit of place has been shaped by Tasmanian Aboriginal people for tens of thousands of years and continues to be shaped by all who have called Hobart home. It is developed jointly by community, private enterprise and government, valuing and enhancing our Hobart identity.

2

CONNECTED LIVING

Initiatives that focus on enhancing the gross domestic happiness of Hobart families through the inclusion of consumer and citizen-centric design and community-driven innovation on top of the advances in communication, transport and energy networks.

COMMUNITY INCLUSION, PARTICIPATION AND BELONGING

We are an island capital city that is socially inclusive and coherently connected, whose people are informed, safe, happy, healthy and resilient.

DRAFT

3

CONNECTED COMMUNITY AND CULTURE

Initiatives that deliver great user experiences for the community and deliver solutions that ensure cultural, demographic, social and demographic equity across the city.

CREATIVITY AND CULTURE

We are a city connected, embracing our diverse communities in cultural expression and creative and artistic participation; a city that enhances our homes, lifestyles and heritage; a city that bravely puts its people first.

4

CONNECTED INDUSTRY AND TOURISM

Initiatives that connect commuters, tourists and merchants including a co-design innovation precinct to support the trial of solutions to address significant strategic planning and city challenges.

CITY ECONOMIES

We are a city whose economies connect people, businesses, education and government to create a high-quality lifestyle in a thriving and diverse community. Our city is our workshop. We collaborate, embracing ideas, inventiveness and initiative.

5

CONNECTED TRANSPORT

Initiatives that promote preparedness for the future of transport and its associated challenges in Tasmania including contributing to the start of solutions to address mobility-congestion problems by eliminating sole-reliance on the automobile and carbon fuels.

MOVEMENT AND CONNECTIVITY

We are a city where everyone has effective, safe, healthy and environmentally friendly ways to move and connect, with people, information and goods, and to and through spaces and the natural environment. We are able to maintain a pace of life that allows us to fulfil our needs, such as work, study, business, socialising, recreation, accessing services, shopping, entertainment and spending time with loved ones.

6

CONNECTED ENVIRONMENT

Initiatives that enhance and operationalise regulatory responsiveness, disaster minimisation and compliance enforcement, and improve the lives of citizens through increased awareness of the city's environmental and sustainability goals.

NATURAL ENVIRONMENT

We are a city whose people see ourselves as part of a beautiful and unique natural environment, from the mountain to the river, which embrace us and shape our identity. We are proud custodians and advocates, ensuring resources are appreciated rather than wasted, supporting biodiverse ecosystems in honour of past, current and future generations.

7

CONNECTED INFRASTRUCTURE

Initiatives that prepare the city for new and more efficient operational delivery models in the face of rapidly increasing requirement for services and population growth.

BUILT ENVIRONMENT

We are a city that maintains our unique built and ecological character, where we all have a safe, secure and healthy place to live. We are a city where people and communities can access world-class services and infrastructure and provide for their social, cultural and economic wellbeing. We embrace change but not at the expense of our Hobart identity and character.

8

CONNECTED GOVERNMENT

Initiatives that transparently communicate key data to the community while protecting personal data and preserving individual privacy, and that improve the governance and operational controls over the future of the Corporation of the City of Hobart.

GOVERNANCE AND CIVIC INVOLVEMENT

We are a city of ethics and integrity. We govern with transparency and accountability, encouraging and welcoming active civic involvement. We collaborate for the collective good, working together to create a successful Hobart.

DRAFT

GLOSSARY

Artificial Intelligence: computers performing tasks that usually require human intellect and reasoning.

Big Data: extremely large data sets that may be analysed using computers to reveal patterns, trends and associations.

City Analytics: the measurement, collection, analysis and reporting of data about the city for the purpose of optimising services and experiences and the environments in which they occur.

Digital Infrastructure: foundational services necessary to the information and technology capabilities of a city or region.

Open Data: data that can be freely used by anyone. New sources of open data are invaluable for solving our long- and short-term challenges.

Smart City Asset: a traditional city asset – like a building, a light, or a road – that uses sensors and automated controls to manage its operations.

Spatial Data: data that is specific to a location and stored then presented or published using natural earth or map-based systems.

RESEARCH

Connected Hobart is the product of over a year of research and engagement with stakeholders and community members.

Research included a review of existing City of Hobart strategies and of Smart Cities strategies and initiatives from around the world. Resources on related topics, such as climate change, economic trends, global risks, and social trends, in particular to do with technology behaviour, were also consulted.

Community engagement included briefings with various stakeholder groups (for example, the Youth Advisory Squad and the Access Advisory Committee) and presentations at local conferences and forums. The City of Hobart hosted three forums about Smart Cities trends and posted a survey on Your Say, asking about community members' definitions of and ideas for Smart Cities.

Over 20 major industry stakeholders were consulted, including the University of Tasmania and the Tasmanian Government.

Over 30 technology vendors were consulted.

City of Hobart staff engaged in several workshops over the past year, including contributing Smart Cities ideas and outlining what community concerns *Connected Hobart* should address.

References can be found on **yoursay.hobartcity.com.au/smart-city**

It takes all of us, as Hobart custodians, to build a framework and action plan and make them work. The City of Hobart would like to express its gratitude to everyone who gave their time and thought to building a *Connected Hobart*, one that is Australia's most economically, socially and environmentally connected community by 2030.

DRAFT

Smart Cities
CITY OF HOBART

YOURSAY.HOBARTCITY.COM.AU/SMART-CITY