Intelligent Community Strategy

Digital opportunities for a future-fit region

In 2018 Bundaberg Regional Council reset its corporate and community vision with the goal of building Australia's best regional community. To achieve this vision we established four new game changers:

1. Delivering connected and leveraged infrastructure
2. Stronger advocacy and investment attraction
3. Driving organizational and cultural excellence
4. Greater use of digital and innovative technology

The last of these game changers – greater use of digital and innovative technologies – aims to position Bundaberg as a model intelligent community in regional Australia. The first step towards achieving this aspiration is preparation of the region's first ever Intelligent Community Strategy. This Strategy breaks new ground in how we will use technology across our economy, community and environment to build Australia's best regional community.

The Strategy was co-created by Council, industry, academia and community leaders and identifies 20 priority areas to deliver the vision for Bundaberg. Highlights include:

✓ Working more closely with community champions on how intelligent community solutions are developed, governed and implemented,
✓ Delivery of a number of priority or "Light House" projects, and
✓ Positioning Bundaberg as a "Living Lab" where technologies can be rapidly trialled across new community partnerships, and infrastructure networks.

The Strategy is also a living document that will date as implementation, technology and needs of the region change. We will review the Strategy regularly to ensure the region's opportunities and challenges are continually leveraged or addressed through smarter use of technology.

I encourage you to review the strategy and to become actively involved in its implementation.

Together we'll work towards delivering our vision of becoming the model intelligent community for regional Australia.
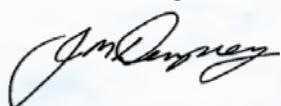
Jack Dempsey
Mayor – Bundaberg Regional Council

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A region of untapped potential

Bundaberg is a region replete with opportunity:

- Spanning 6000 square kilometres, Bundaberg showcases a rich diversity of natural landscape, economic activity and people. Whilst Bundaberg is particularly renowned for its lifestyle and climate, the region is also a hub of industry, including agriculture and manufacturing.

- Bundaberg's Gross Regional Product increased by 13.2% in 2016/2017, due in large part to the region's thriving agriculture industry, worth an estimated $500 million per annum, for which the region has become known as a 'national food bowl'.

- Blazing a trail in AgTech innovations, Bundaberg is well positioned to capitalise on the $100 billion industry that agriculture is forecast to be for Australia by 2030.

- The region has also gained international economic acclaim for 'Bundaberg grown and Bundaberg made' brands, including Bundaberg Rum, Bundaberg Brewed Drinks and Bundaberg Sugar. Bundaberg's airport and port hold out further opportunities for investment and international trade. Bundaberg is also home to a number of start-ups and entrepreneurs seeking to grow their ventures locally and on the global stage.

- Bundaberg's unique environment and natural resources make the region a prime location for environmental science research. With a campus located in Bundaberg, Central Queensland University has developed a strong reputation for excellence in environmental and agricultural research, contributing to the development and sustainable management of the region.

- Bundaberg also offers rich arts and cultural experiences, and events celebrating its produce and diverse communities.

- Finally, Bundaberg's proximity to both Brisbane and the Great Barrier Reef, combined with its diverse attractions including the Mon Repos turtle conservation site, the Hinkler Hall of Aviation, the Botanic Gardens and the Bundaberg Rum Distillery among others, make the region a popular tourist destination. In 2016/2017, tourism delivered $468.6 million in value, representing a 10.1% contribution to gross regional product.

Despite these strengths, the Bundaberg Region faces a number of challenges that threaten to undermine its vibrancy and ability to sustain its future prosperity.

Unemployment

Bundaberg's unemployment rate is more than 3 percentage points higher than the average rate for Queensland (March 2018) and youth unemployment is a particular challenge. The region's high unemployment rate affects productivity and the resulting high dependency on social welfare strains resources.

Ageing population

Bundaberg is experiencing an ageing population and struggling to retain its youth, with many young people leaving the region to seek job opportunities in the major cities. From 2011-2016, the average age of the Bundaberg Region increased by 1.5 years and, in 2016, 22.4% of the population was aged 65 and over, while Queensland's proportion was only 14.7%.

Dispersed and disconnected communities

Limited transport options coupled with a lack of digital infrastructure across the region's wide geographical expanse have created disconnected communities and pockets of social isolation. The lack of connectivity prevents more remote communities from accessing the services and amenities available to communities closer to the Bundaberg City Centre.

Climate change and natural disasters

Bundaberg's vulnerability to climate change and natural disasters is one of the most serious threats to the region's economy and community. In 2013, Bundaberg experienced its largest flood in recorded history, with total damages estimated at $400 million.

An Intelligent Community integrates digital technology into its physical infrastructure and systems to solve real world problems and enable the development of a vibrant, sustainable and innovative place, now and for the future.

A pivotal moment in time

Bundaberg's challenges are not unique.

Cities and regions across the globe are seeking to respond to similar challenges, delivering a better quality of life and ensuring a sustainable, vibrant future for their people and places.

Rather than focussing solely on the 'old ways' of doing things, an increasing number of these cities and regions are leveraging the rich vein of emerging technologies, now available at a cost and scale never before seen.

Cities and regions are harnessing these digital technologies to build on their unique strengths and unlock opportunity to embrace the future with confidence.

This is the essence of an Intelligent Community

Why building an Intelligent

Embracing innovation to build a future-fit region

The time is ripe for Bundaberg to leverage the advantages brought about by the digital revolution to accelerate and unlock opportunities for our people and places. Digital technologies will enable our region to leverage its unique strengths, help to address its challenges and position itself as a leading Australian region of the future.

The purpose of the Bundaberg Intelligent Community Strategy is to:

Set an overarching vision and narrative to drive a long-term approach to the region's Intelligent transformation

Foster collaboration and sharing among the region's diverse stakeholders to discover new ideas and solve problems

Position the region as a 'living lab' for experimenting with new initiatives and solutions to be modelled and scaled across regional Australia

Leverage our region's strengths to develop a new future-fit identity premised on innovation and opportunity

Building on the region's legacy of innovation, the Intelligent Community Strategy will weave together Bundaberg's diverse threads of opportunity to create a thriving hub to live, work, play and invest.

Hinkler Hall of Aviation

Community matters

Goals of the Bundaberg Intelligent Community Strategy

1. Preserve the places and quality of life we love whilst ensuring a sustainable, resilient future

At its heart, building Bundaberg as an Intelligent Community means protecting and enhancing our region's enviable natural assets and quality of life, whilst also embracing change to ensure a future-fit region. In the face of climate change and increasing natural disasters, we need a proactive, future-focused approach to adapt and thrive.

2. Connect and collaborate to discover innovative opportunities

Bundaberg is home to a diversity of talent and expertise. By enabling collaboration across distance, digital technology will unlock our region's human capital and collective intelligence, creating new economic, social and environmental opportunities to build a region of the future.

3. Grow our local industries and business ecosystem

Bundaberg as an Intelligent Community will capitalise on its strengths and expertise in agriculture, healthcare and manufacturing to become a leader and centre of excellence for research and development in new technologies to drive the profitability and innovation of these industries into the future.

4. Ensure that everyone is included and no one is left behind

The full impact of Bundaberg's Intelligent Community transformation can only be realised when every member of the community is able to harness the opportunities of digital technologies. Bridging the digital divide is critical to enable the whole community to meaningfully participate in co-creating our future region.

5. Deliver better services, more efficiently

Service delivery is the core of Council business. The streamlining of digital technologies and process innovation will enable Council to use data to make better decisions and create a more dynamic, personalised customer experience, while simultaneously unlocking savings to be reinvested elsewhere.

6. Enhance the visitor experience and promote our international reputation

Bundaberg has the opportunity to use digital technologies to capitalise on our region's diversity of tourist attractions to deliver quality visitor experiences. Highlighting events, places to visit and volunteer opportunities through digital channels will create a more engaged tourist experience, ultimately serving to build an international profile for the region as a top destination to visit and explore.

Bundaberg's Intelligent Community Strategy is a call to action for collaboration right across our region

A Model Intelligent Community for Regional Australia

'To collaboratively create an innovative, sustainable and inclusive region that stands as a model Intelligent Community for regional Australia'

- Bundaberg Intelligent Community Vision

Collaboration is key: Co-creating the strategy

The development of Bundaberg's Intelligent Community Strategy is a highly collaborative process.

A range of engagement activities have been undertaken, including workshops, phone interviews and surveys with stakeholders across Council, academia, business, local entrepreneurs and the community.

This process highlighted Bundaberg's strengths, challenges and opportunities, and crowd-sourced ideas to create a shared vision.

The Intelligent Community Strategy is a core part of Bundaberg's broader strategic planning context

> The Intelligent Community Strategy does not assume a blank slate nor seek to replace work already underway. Rather, the Strategy is integrated as a core pillar of BRC's Corporate Plan 2019-2023 and builds on and supports the many existing plans, investments and initiatives driving Bundaberg's development..

What we heard from you…

Strengths

- Thriving agricultural industry
- Natural beauty and rich natural resources
- International brand recognition
- Legacy of innovation coupled with a growing entrepreneurial community
- Economic diversity
- Tourist destination
- Proactive Council
- Housing and cost of living affordability
- Untapped value of infrastructure developments e.g. the Port and the Airport

Challenges

- High unemployment rate
- Areas of ageing and disadvantage
- Lack of digital infrastructure
- Vulnerability to natural disasters (e.g. flooding)
- Diverse and dispersed communities
- Talent retention and attraction
- Dwindling volunteer base
- Small business dominated and lack of major industries
- Reluctance to change (in parts)
- Perception that the region lacks vibrancy, e.g. nightlife, the Arts etc.

Opportunities

Open the region as a 'living lab' for experimenting with new ideas and technologies

Create greater opportunities for regional collaboration with the University, industry and entrepreneurs

Improve digital connectivity across the region

Improve digital literacy

Develop a leading digital precinct

Implement Smart technology solutions that address challenges to improve efficiency, decision-making and service delivery

Connecting, fostering and growing Bundaberg's innovation ecosystem to retain and attract talent within the region

Open up Council data to increase community engagement and enable residents to use information to make better informed decisions

'There is no better place for CQ University to work with the horticulture industry than Bundaberg.

We support the development of cutting edge, innovative agricultural developments and our agricultural research team specialises in working together with regional communities like Bundaberg to assess and support new technologies that will make a real difference to local industries.

Here in Bundy that means working closely with local sweet potato, cane, and vegetable growers to identify more profitable methods of production.

And through our Bachelor of Agriculture we're training the next generation of local farmers and industry leaders to help drive prosperity well into the future'

- Philip Brown, Director Institute for Future Farming Systems

Guiding Principles

Six key threads run through the strategy as **guiding principles** directing a cohesive approach to Bundaberg's Intelligent Community transformation.

Citizen-centric

"We will ensure that our people are at the heart of everything we do at every step on our journey to become an Intelligent Community."

Open

"We will adopt an open approach, enhancing the accessibility of our region and the transparency and interoperability of our operating environment, including the use of Open Data."

Connected

"We will connect our region's diverse stakeholders and systems to unlock our collective intelligence and collaboratively develop solutions to address our common challenges."

Agile

"We will embrace flexible ways of working, living and learning, ensuring that our strategy evolves as our region evolves."

Inclusive

"We will ensure our Intelligent Community development considers the needs of every member of our diverse community"

Innovative

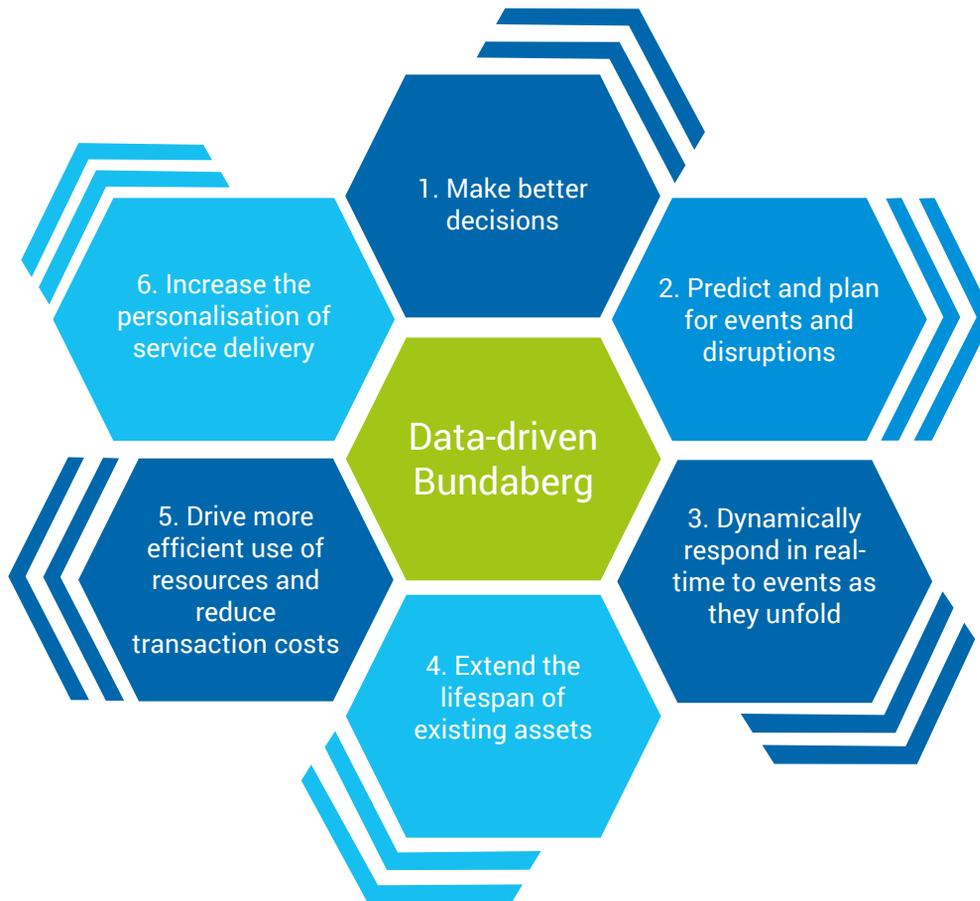"We will embrace new ideas and change, fostering a culture of experimentation to develop a region fit for the future."

'Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody'

- Jane Jacobs, 'mother' of community-centred urban design

The power of data

Embedding a digital layer across Bundaberg is critical to building the region as an Intelligent Community. This layer will enable Bundaberg to harness both existing and new flows of data to better understand and serve the region's communities, and plan for the future.

Data-driven Bundaberg

1. Make better decisions
2. Predict and plan for events and disruptions
3. Dynamically respond in real-time to events as they unfold
4. Extend the lifespan of existing assets
5. Drive more efficient use of resources and reduce transaction costs
6. Increase the personalisation of service delivery

Bundaberg's digital layer will be underpinned by three key pillars:

Integration

Data flows will be integrated to provide rich, cross-regional, cross-sectoral and cross-departmental insights

Transparency

Data will be used to increase the visibility of Council's operations and service delivery, and measure performance to drive improvement

Security

Robust security measures will be embedded within the digital architecture from the outset, protecting against data breach and misuse

Creating a region of connected communities
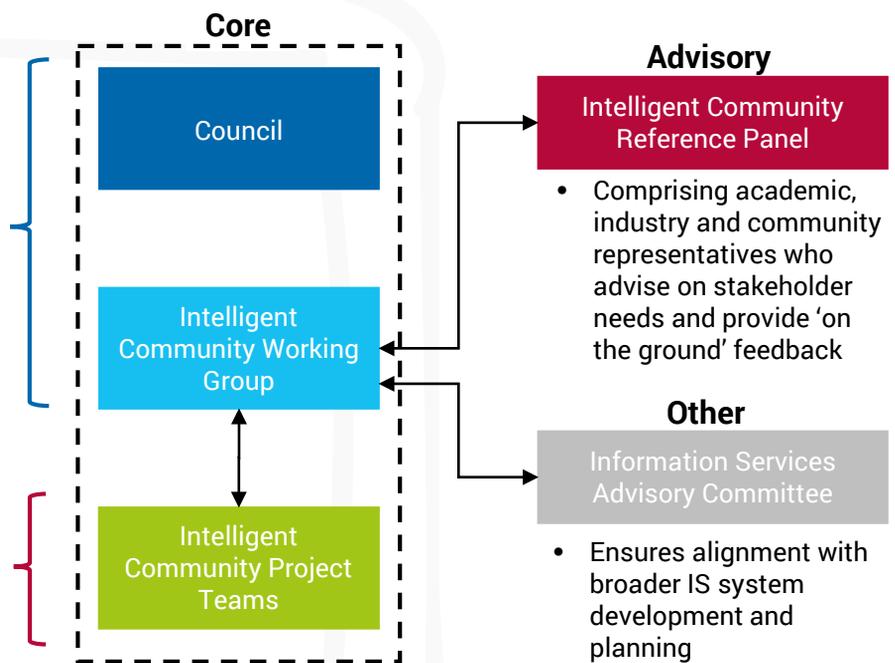
Sustaining our strategy

Ensuring the Intelligent Community Strategy delivers real impact requires an ongoing collaborative process of doing, testing, learning and improving. Success depends on each and every one of Bundaberg's stakeholders taking ownership of the strategy and working together as one region to drive its execution. This strategy is a living document that will evolve as Bundaberg evolves.

Strategic Governance

- Maintain strategic direction and alignment of Intelligent Community vision and priorities
- Ensure integration of the Intelligent Community program of works within BRC's broader strategic planning context

Delivery Governance

- Localise the high level vision and principles to deliver relevant, impactful Intelligent Community initiatives across the region
- Monitor progress and relay learnings to drive improvement

Core

Council

Intelligent Community Working Group

Intelligent Community Project Teams

Advisory

Intelligent Community Reference Panel

- Comprising academic, industry and community representatives who advise on stakeholder needs and provide 'on the ground' feedback

Other

Information Services Advisory Committee

- Ensures alignment with broader IS system development and planning

Intelligent Community Governance Model

Bundaberg's Intelligence Community governance model is based on the best-practice BSI Standard for a Smart City Framework.

By bringing key players from right across Council together with community stakeholders at both the strategic and delivery governance levels, the model will advance a holistic, rather than siloed, approach to Bundaberg's Intelligent Community transformation and ensure the delivery of the Strategy continues to respond to and include the full spectrum of the region's stakeholders.

'It is great to be in Bundaberg as a part of this new digital revolution. Bundaberg is the perfect combination of collaboration, kindness, innovation and sustainability. It is a community where everybody is willing to help you to grow. Where you can have an awesome lifestyle with perfect weather. It is a farming community with a craving for innovation. Just its name, Bundaberg, is a world known brand. All of this results in a perfect place for living and doing business'

- Sebastian Cerone, Co-founder
LESS Industries

An Intelligent Council at the heart of an Intelligent Community

- Bundaberg's Intelligent Community Strategy is structured around five strategic themes.

- Steering the development of a thriving, inclusive and resilient Bundaberg are **Intelligent Economy**, **Intelligent Community** and **Intelligent Environment**.

- Strong and secure foundations are based upon **Intelligent Governance** and **Intelligent Services.**

- Each strategic theme comprises of a high level objective and a set of priorities and enablers designed to promote action.

- The key partners required to work together to drive the strategic themes have also been identified.

- The five strategic themes align to the values and goals of Bundaberg's Corporate Plan for 2019-2023, providing an integrated framework to propel Bundaberg forward as a model Intelligent Community.

The success of Bundaberg's Intelligent Community transformation relies on a cohesive approach which seamlessly weaves together the five strategic themes

A region of connected, inclusive communities that invests in human capital to enable everyone to participate and flourish.

A region that preserves its unique environment and bolsters its resilience to create a sustainable future.

A region with a thriving and diversified economy that cultivates an innovation ecosystem to attract and retain talent, and equips its people with the skills for the jobs of the future.

Intelligent Community

Intelligent Economy

Intelligent Environment

BUNDABERG
REGIONAL COUNCIL

**Intelligent Services**

Intelligent Governance

A region built upon a digitally enabled customer-centric service delivery model, that enhances the citizen and visitor experience

A region underpinned by an integrated operating system and strong leadership that embraces digital technologies and fosters collaboration to drive innovation and unlock opportunity

'From school children learning coding, logic, and problem solving, to seniors learning the basics of social media and tablets, to experiencing Virtual Reality, Bundaberg Regional Libraries are key to accelerating Bundaberg's Intelligent Community journey by helping people of all ages to develop the skills required of a future citizen'

- Peta Browne, Manager Library Services
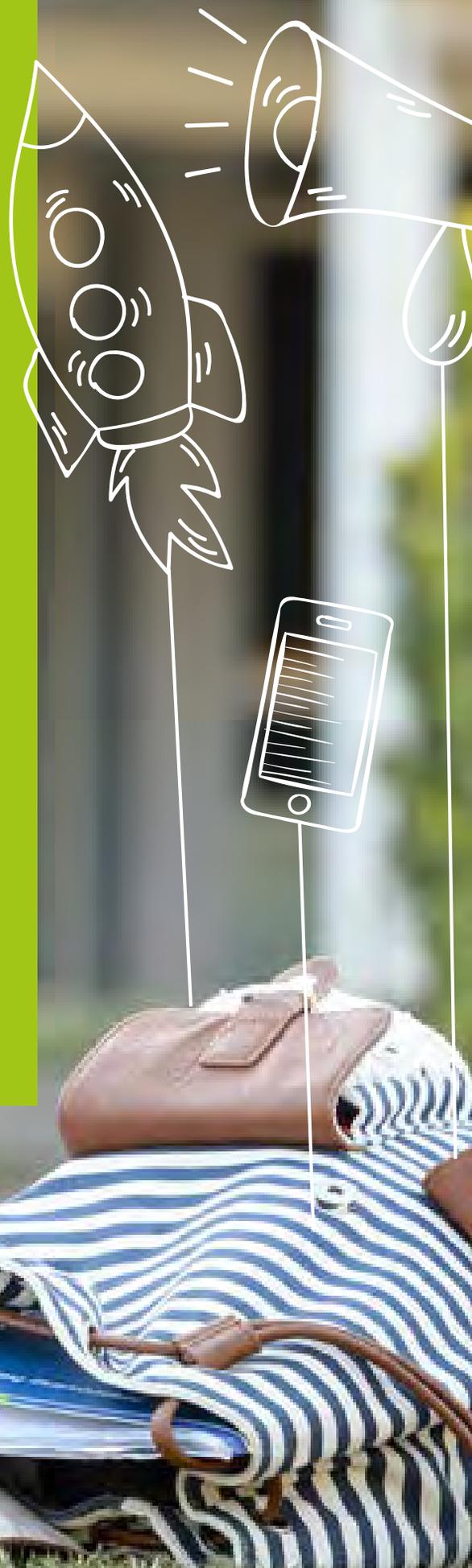
Realising Intelligent Outcomes

Intelligent Economy

Intelligent Community

Intelligent Environment

Intelligent Economy

Intelligent Economy

Objective: A region with a thriving and diversified economy that invests in its industry specialisations, cultivates an innovation ecosystem to attract and retain talent, and equips its people with the skills for the jobs of the future.

Priority | 1

Innovation Ecosystem

Value	Enablers	Partners
Opening up the region as a 'living lab' for innovation in order to promote the growth of the entrepreneurial community and establish a reputation for the region as a leading innovation hub	✓ Support and promote innovation initiatives run by organisations across the region, e.g. the Generator and the Kalkie Makerspace ✓ Roll-out and scale the proposed LoRaWAN network across the region to enable established businesses/start-ups to access and transform city data to create innovative solutions and increase productivity ✓ Develop a partnering framework to encourage stakeholders to engage with Council in the design and delivery of Intelligent Community projects ✓ Engage with Central Queensland University, TAFE and schools to create programs for the development of the skills for the future and to address youth unemployment, including coding, STEM and entrepreneurship	✓ BRC ✓ CQUniversity, TAFE, schools ✓ Innovation/start-up hubs & entrepreneurs

Priority | 2

AgTech Centre of Excellence

Value	Enablers	Partners
Working collaboratively with cross-sector players to position the region as a leader in AgTech and the future of agriculture	✓ Collaborate with Central Queensland University to promote the region as a hub for AgTech and industry-led research through the Institute for Future Farming Systems ✓ Facilitate connections between Central Queensland University, AgTech entrepreneurs and industry players ✓ Develop a designated research and development incubator to enhance opportunities for collaboration, innovation and commercialisation of AgTech platforms and solutions	✓ BRC ✓ CQUniversity, TAFE, schools ✓ Agricultural industry ✓ Innovation/start-up hubs & entrepreneurs

Priority | 3

Health and Assistive Care Specialisation

Value	Enablers	Partners
Leveraging Bundaberg's established expertise to position the region at the forefront of health and assistive care innovation	✓ Promote and scale innovation-based events for identifying and responding to healthcare needs with creative solutions, including the Tikkun Olam Makeathon run by Community Lifestyle Support (CLS) and healthcare hackathon challenges ✓ Support development of a digital health precinct, connecting the region's hospitals (and new hospital slated for development), Central Queensland University, allied health service providers and community organisations to improve access to and quality of healthcare services and attract medical and advanced manufacturing businesses and professionals	✓ BRC ✓ CQUniversity, TAFE ✓ Innovation/start-up hubs & entrepreneurs ✓ Allied health service providers ✓ Hospitals ✓ Community organisations

Priority | 4

Visitors to the Region

Value	Enablers	Partners
Using digital technology to build on Bundaberg's natural visitor magnets and enhance the visitor experience	✓ Roll out way-finding and dynamic signage to assist in the navigation of the region ✓ Use digital channels to push out notifications to visitors regarding events and local attractions ✓ Leverage visitor engagement channels to crowd-source improvement opportunities for Bundaberg	✓ BRC ✓ Bundaberg North Burnett Tourism ✓ Tourism and Events Queensland ✓ Local tourism operators

Intelligent Community

Intelligent Community

Objective: A region of connected, inclusive communities that invests in human capital to enable everyone to participate and flourish.

Priority | 1

Digital Inclusion

Value	Enablers	Partners
Fostering a digitally literate and capable community to enable everyone to tap into and benefit from the opportunities of digital technology, ensuring that no one is left behind	✓ Promote the region's libraries as key hubs for digital literacy and robotics ✓ Continue and scale programs for teaching children the skills of the future and encouraging entrepreneurialism ✓ Grow existing showcases and events to inspire participation and reduce fear of change by demonstrating and helping the community to become comfortable with new technologies, e.g. the Gin Gin Seniors Expo	✓ BRC ✓ Library network ✓ Community organisations ✓ Schools

Priority | 2

Community Engagement & Co-creation

Value	Enablers	Partners
Leveraging digital technology to empower citizens to express their opinions and participate in the planning and development of the region	✓ Deploy a digital ideation and consultation platform, or physical space, for the community to suggest new ideas/initiatives ✓ Crowdsource information about the citizen and visitor experience by using digital tools and platforms ✓ Promote innovation and new ways of thinking by inviting innovative leaders from across the world to share their vision with Bundaberg, e.g. Hinkler Innovation Series ✓ Enlist 'Intelligent Community ambassadors' to spur broader engagement, advancement and promotion ✓ Explore philanthropic investment in digital skills, communications and inclusion	✓ BRC ✓ Community leaders and organisations

Priority | 3

Community Infrastructure

Value	Enablers	Partners
Embedding technology across the region's infrastructure in order to improve amenity and create a vibrant, safe and welcoming public realm	✓ Continue the deployment of free public WiFi across the City Centre, the Burnett Heads redevelopment site and throughout the region ✓ Expand and scale the 'Safer Bundaberg CCTV Project' and implement a video analytics system to increase crime prevention and improve crisis response times ✓ Roll out the Intelligent technology trials planned for the Burnett Heads redevelopment site with the goal of replicating and scaling successes across the region	✓ BRC

Priority | 4

Arts & Culture

Value	Enablers	Partners
Providing access to digital tools and platforms to support creative industries and celebrate local culture and heritage	✓ Promote local artists and designers by enabling access to digital platforms to showcase creations and exhibitions ✓ Facilitate connections between local artists and Intelligent Community solution providers to demonstrate and translate new projects and technologies for the community ✓ Pilot interactive technology to enable citizens and visitors to access historical and cultural information, including information regarding key indigenous sites	✓ BRC ✓ Community organisations

Intelligent Environment

Intelligent Environment

Objective: A region that preserves its unique environment and bolsters its resilience to create a sustainable future.

Priority | 1

Environmental Monitoring & Management

Value	Enablers	Partners
Using data analytics to improve the effectiveness of environmental monitoring and ongoing management	✓ Deploy Smart technology solutions, such as the Smart Water Meter project, and collect data to monitor in real-time key environmental conditions, challenges and their impacts ✓ Pilot digital technology that enables public access to collected data under Council's Open Data Policy (e.g. data from smart water meters) to increase engagement and support smarter decisions ✓ Develop programs for schools, including DIY kits for environmental and other data collection	✓ BRC ✓ CQUniversity & schools

Priority | 2

Waste Management

Value	Enablers	Partners
Deploying digital technology to unlock efficiencies in waste management and enhance public amenity	✓ Interactively engage with the community through digital channels to encourage responsible waste management and recycling ✓ Leverage data and technology to optimise garbage collection routes based on demand rather than traditional schedules ✓ Reduce waste to landfill by exploring waste to energy generation and beneficial uses of waste products	✓ BRC ✓ Community organisations

Priority **| 3**

Natural Disaster Anticipation & Response

Value	Enablers	Partners
Improving the accuracy of natural disaster prediction to enhance future-proofing mechanisms and response systems	✓ Use predictive analytics to anticipate the occurrence of natural disasters ✓ Push out real-time alerts and updates to the community to assist in preparing for and responding to natural disasters ✓ Open environmental data to emergency services to improve the efficiency of response times	✓ BRC ✓ Emergency service providers ✓ Community organisations

Priority **| 4**

Citizen Science

Value	Enablers	Partners
Leveraging digital technology to promote citizen science to raise environmental awareness and build the community's conservation capacity	✓ Create a digital platform and channels to enable citizens to leverage connectivity networks to collect and monitor data on specific environmental conditions of interest, e.g. Mon Repos Low Glow Turtle Project ✓ Host citizen science challenges to encourage the community to develop a greater awareness of their environment and spur increased participation in conservation efforts	✓ BRC ✓ Community organisations

Securing an Intelligent Foundation

Intelligent Governance

Intelligent Services

Intelligent Governance and Intelligent Services are critical to establish the strong foundation that BRC will use to drive Bundaberg's Intelligent Community transformation.

This foundation will support Council to adopt the range of roles required to cater to the diverse needs of the region's stakeholders and enable them to harness the opportunities of an Intelligent Community:

Provider: BRC will use data to make better decisions and provide more efficient services that save costs and improve outcomes for the community.

Steward: BRC will adopt a security by design approach, ensuring that privacy and security controls are built into Bundaberg's Intelligent Community foundation.

Broker: BRC will accelerate the development and implementation of innovative solutions by breaking down silos and matching challenges with problem-solvers.

Enabler: BRC will enable Bundaberg's diverse stakeholders to harness the opportunities of the future by connecting the dots, providing information and tools, smoothing bumps in the road and sometimes simply getting out of the way.

Intelligent Governance

Intelligent Governance

Objective: A region underpinned by an integrated operating system and strong leadership that embraces digital technologies and fosters collaboration to drive innovation and unlock opportunity

Priority | 1

Intelligent Community Governance Framework

Value	Enablers	Partners
Developing a governance framework to guide the Intelligent Community transformation	✓ Establish an Intelligent Community governance framework, including an Intelligent Community Steering Committee charged with leading and embedding the strategy across Council, as well as mechanisms for measuring and tracking success ✓ Create a Reference Group comprising key industry, research and community representatives to advise on issues, policy and projects, champion the Intelligent Community agenda across the region and work in collaboration with Council to drive the implementation of the strategy	✓ BRC ✓ Key industry and community representatives

Priority | 2

Single, Integrated Council Platform

Value	Enablers	Partners
Deploying a single platform to integrate Council's operations and present a single view of all Council data	✓ Deploy a single platform, integrated with Council's overarching IT environment, that serves as a central portal for pooling, managing and analysing Council's relevant data streams ✓ Enable all Council staff to access the platform and use it to share experiences and collaboratively develop new initiatives ✓ Continue to explore how Council could integrate data into the platform from other sources, e.g. LG Sherlock and State Government	✓ BRC

Priority | 3

Open Data

Value	Enablers	Partners
Releasing data to the public to be leveraged, analysed and transformed to unlock economic and social value and increase the transparency of Council's operations	✓ Create and adopt an Open Data Policy to streamline the release and management of data to the public ✓ Standardise Council's processes for collating and publishing open data, with the ultimate aim of creating an open data marketplace in which an array of organisations share and exchange data ✓ Run Open Data Challenges to encourage the community to use open data to develop innovations for improving the region	✓ BRC ✓ Community organsiations

Priority | 4

Standards-based Architecture

Value	Enablers	Partners
Adopting standards to future-proof the Intelligent Community's operating foundation	✓ Adopt Internet of Things global best practice standards to ensure interoperability and protect against vendor lock-in, enabling systems to evolve as both the region and the technological landscape evolve ✓ Embed IoT and Intelligent Community standards requirements (e.g. interoperability) into all procurement policies	✓ BRC

Intelligent Services

Intelligent Services

Objective: A region built upon a digitally enabled customer-centric service delivery model, that enhances the citizen and visitor experience

Priority | 1

E-services

Value	Enablers	Partners
Embedding digital technology across Council to improve service delivery and enhance the experience of interacting with Council	✓ Articulate the IT architecture and integrated data model at an organisational level to set the baseline for the development of the digital infrastructure required for intelligent service delivery ✓ Develop a citizen portal to enable online self-service ✓ Adopt an omni-channel approach to service delivery to create a more personalised customer experience by enabling customers to select the channel which best suits their needs for accessing and using information and services ✓ Progress the website consolidation project to optimise accessibility of information	✓ BRC

Priority | 2

Digital Communication

Value	Enablers	Partners
Improving Council's communication capabilities and channels	✓ Use digital channels to enable the community to access real-time information on Council services and the status of customer requests, including by progressing the 'incoming-outgoing' correspondence project to increase the number of touchpoints between Council and community ✓ Proactively 'push out' information regarding Council activities and meetings, community events and volunteering opportunities through Council's digital media channels ✓ Leverage digital tools to inform citizens about Council's plans, policies and procedures	✓ BRC

Priority | 3

Remote Customer Service

Value	Enablers	Partners
Enhancing decentralised access to Council services, especially in key regional centres outside of the Bundaberg City Centre, including Childers, Bargara and Gin Gin	✓ Deploy a remote customer service system using telepresence and digital concierges to improve customer service ✓ Explore options for Council staff teleworking from Council libraries and satellite centres to increase interaction with remote communities as well as increase efficiencies for Council by reducing staff travel times	✓ BRC ✓ Library network

Priority | 4

Service Experimentation

| Value	Enablers	Partners
Leveraging Council as a test-bed for experimenting with new service delivery models and channels	✓ Promote the piloting of innovative ideas for improving service delivery by developing an 'Intelligent Community Sandbox' within Council to be used as a platform for experimentation. Link new service ideas and models back to Council's service-led framework to ensure seamless integration ✓ Foster a safe-to-fail environment within Council by organising internal hackathons and challenges for the development of new ideas and projects ✓ Consider the further use of big-data analytics, machine learning, AI and automation to help unlock broader insights across existing and new sources of data	✓ BRC

Lighthouse Projects

A number of Intelligent Community initiatives have been progressed that are already delivering impact.

Bundaberg has the opportunity to expand and scale these initiatives and model them as 'lighthouse projects' to act as proof points that inspire and guide similar projects.

Bundaberg also has a number of Intelligent Community initiatives in the pipeline that have the potential to bring the Intelligent Community Strategy to life by further demonstrating the value that can be realised.
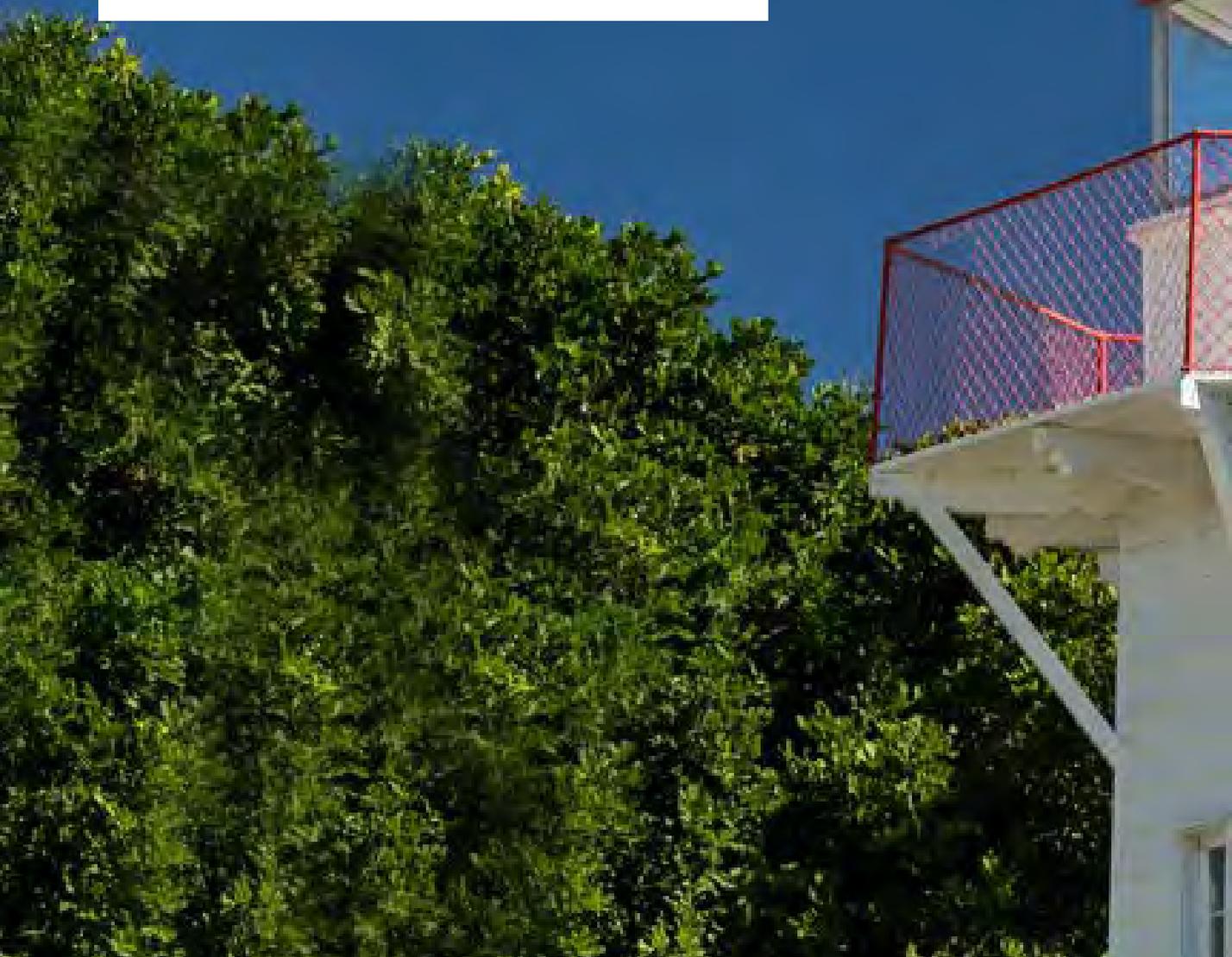
Projects Underway

(1) **Assistive Technology (AT) Makerspace: Transforming Bundaberg into a Living Lab**

The AT Makerspace is a newly established hackerspace specialising in the co-design, co-development, and co-deployment of assistive technology solutions in partnership with people with disabilities to improve quality of life. The makerspace was started after local disability organisation Community Lifestyle Support (CLS), realised that they had many clients in need of custom assistive technology, and no local facility capable of developing solutions to meet those needs. To unveil the Makerspace, CLS ran a 'Makeathon' in which people living with a disability presented challenges for teams to address over a three day period. The Makerspace provides a 'living lab', enabling a diversity of players to adopt a 'learning by doing' approach to experiment with new ideas and technologies in a safe-to-fail environment.
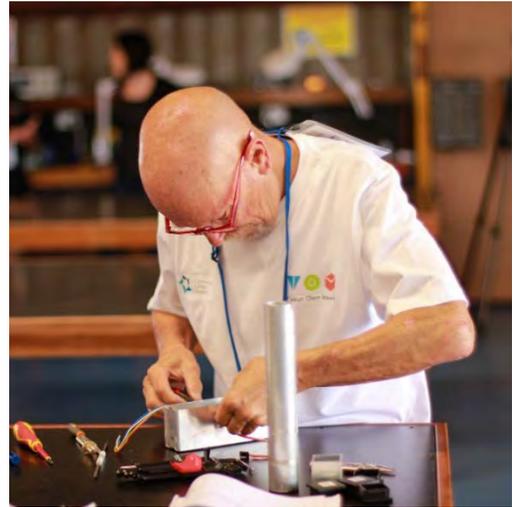
Future Opportunity

As the Makerspace matures, Bundaberg can leverage and scale innovations across the region that have been successfully piloted in the space. In addition, Bundaberg has the opportunity to expand the Makerspace to build the region itself as a 'living lab', resulting in new innovations and increasing the region's attractiveness for investment and talent.

2 · Libraries as Digital Community Hubs

Reflecting a global trend, Bundaberg is progressively transforming its network of libraries into digital community hubs that can support the development of an intelligent and inclusive community. Reinforcing their traditional role as community anchors, Bundaberg's libraries are serving to bridge the digital and physical worlds by providing a physical space for experiential digital learning, working and creating. Each library offers free public WiFi and a range of digital literacy programs are offered at Bundaberg central library.

Future Opportunity

Currently, many of the digital literacy programs are only on offer at the Bundaberg central library. In order to enable communities across the Bundaberg Region to benefit from such digital offerings, Bundaberg could explore how technology could be leveraged to roll-out remote digital literacy and robotics programs to the Childers, Gin Gin and Woodgate Beach libraries. Bundaberg could also promote its library network as hubs for demonstrating new technologies and innovations being trialled across the region to build community understanding and capacity and increase uptake. Finally, the libraries could seek to deepen partnerships with the region's schools, TAFE and University to scale and improve digital programs and initiatives to build the skills required for the jobs of the future.

3 · Smart Water Meter Pilot

Council has endorsed a Smart Water Meter Pilot to reduce waste, realise cost savings and enhance customer service in the region's water management. The pilot will comprise trialling digital metering technologies across diverse areas of the Bundaberg Region, connected by appropriate communications networks, as well as the development of an interactive online dashboard for staff and consumers to visualise and analyse water data.

The pilot could tangibly demonstrate the benefits that can be reaped from access to and analysis of data, and learnings from the pilot could be applied to the various Smart technology pilots proposed for the Burnett Heads site.

Future Opportunity

There is the opportunity to leverage the Smart Water Meter communications and sensor networks for future Intelligent Community initiatives, including the potential to open up the network to be utilised by business and the community.

Projects in the Pipeline

1   **Low Glow Lighting & Marine Turtle Conservation**

Bundaberg has submitted a funding application under Round 2 of the Federal Government's Smart Cities and Suburbs Program to deploy Smart technologies to reduce the impact of urban light pollution at Mon Repos Conservation Park, which hosts the largest concentration of nesting marine turtles on the eastern Australian mainland and is a major national tourist attraction. The project intends to reduce urban glow by deploying a sensor network to collect real-time, granular data on light pollution which will guide the installation of Smart LED street lighting as well as raise community awareness to drive increased action.

While the Smart technology is a crucial component of the project, the real value lies in the collaborative partnership that formed to drive it, including representatives from State Government, natural resource management and tourism bodies, the charity sector and the energy sector. This partnership framework can serve as a model for future projects.

(2) Open Data Policy

Recognising the importance of opening data to the public to be analysed and transformed for the benefit of the Bundaberg Region, Council is currently developing an Open Data Policy.

The Policy is intended to streamline the requirements and processes involved in releasing and managing data, including the data type, format and quality as well as privacy and security protocols.

Bundaberg's Open Data Policy has the potential to empower stakeholders to make better, data-driven decisions, access and transform data to develop new solutions and enhance Council's transparency, all through an efficient and standardised framework.

(3) Community Self-Service Portal

Council is planning to develop a community self-service portal to reduce Council resources required to process services requests and increase convenience and efficiency for citizens. Importantly, the portal will improve the customer experience by increasing the personalisation of service delivery, enabling citizens to select channels for accessing information and processing requests which best suit their needs.
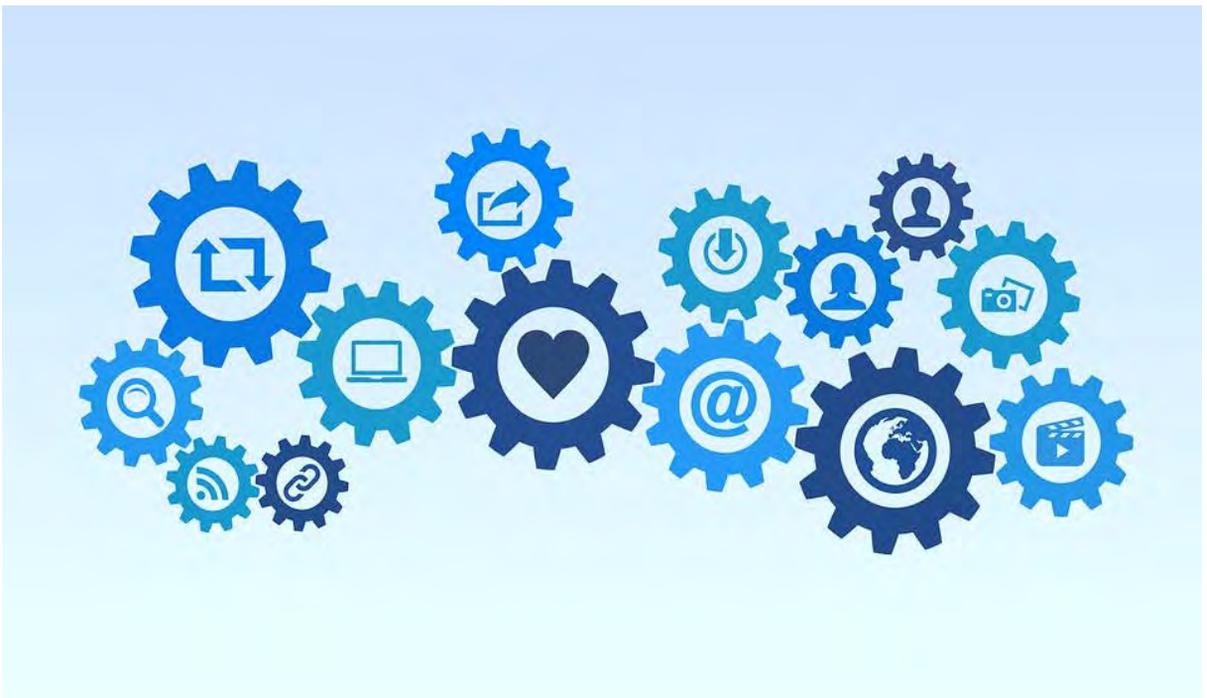
‘This strategy provides us with the tools and knowledge to disrupt ourselves’

'Bundaberg's Intelligent Community strategy will make visible the latent potential in our region.

The ability to harness and leverage the findings from big data will create opportunities for our region's businesses, and up-and-coming entrepreneurs to thrive in an increasingly competitive global marketplace, harnessing local knowledge to address global problems.'

- Damien Tracey, CEO
Community Lifestyle Support

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Thank You

We would like to thank all of the participants, across Council, industry, academia and the community, who contributed their valuable insights and perspectives in the creation of this strategy.

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