

# DIGITAL1ST

*Advancing our digital future*

The Queensland Government  
digital strategy for 2017–2021



**Queensland**  
Government

# Ministerial foreword

I am proud to release the Queensland Government digital strategy—DIGITAL1ST: Advancing our digital future.

We truly believe Queensland can and should be a leader in digital government.

We have a strong vision of how we want to improve the lives of Queenslanders, and a path to make that happen.

We are putting people at the heart of our digital services, because we believe that is how we create the biggest benefits for our citizens, our state and our economy.

Most customers now want digital by default. And our workforce wants to design and deliver digital services to an exceptional standard.

So, we are working with our citizens, stakeholders and communities, building connections and trust, as well as drawing on knowledge, experience, insight and creativity to make our vision a reality, to deliver the best outcomes for all Queenslanders.

Strategic priorities are focusing our efforts, and guiding principles are shaping daily decisions as we position ourselves for our digital future.

The Queensland Government has achieved so much in the way of digital, information and communication technology improvements in recent times. It is clear we have the foundations, capability and willingness to be a leader in this domain.

Together we can build a digital first government that enables a vibrant and thriving Queensland.



Leeanne Enoch MP  
Minister for Innovation,  
Science and the Digital Economy  
and Minister for Small Business

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01

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# VISION



# A government that puts people at the heart of its digital services.

## What does that mean?

Government digital strategies can often focus on the potential of digital services, thinking primarily about customer service channels, technology, standard operating environments, software as service and cloud computing.

This is important, but it is not enough.

Digital technology is reshaping our lives and institutions. Even though digital services and technology now enable, in part or full, the way government delivers all services to Queensland, it can look to many people like government just follows along behind.

We believe that not only should government be keeping up; it should be leading the way.

We want to provide Queenslanders with personalised services that anticipate their needs.

We want to use digital technology to build vibrant and prosperous communities. This applies in regional, rural and remote communities just as much as our cities.

Innovation is accelerating as technologies such as robotics, cloud, big data, the Internet of Things, artificial intelligence and machine learning are transforming the economy.

We want to seize the opportunities these technologies bring, to make it easier, faster and cheaper for businesses to engage with government. But we are committed to doing more.

Digital technology is changing what, how and where products and services are made and delivered; how industries and work are organised; the infrastructure, laws and regulations that are needed; and the skills people and businesses will need now and into the future.

The Queensland Government is committed to working across all of these areas to ensure that Queenslanders can thrive in the digital age.

We are enabling a government that is increasingly forward-thinking, innovative and trustworthy.

To do this we need to think about more than technology.

We need to focus on people.

That means not only our customers and workforce, it means our culture and values, our appetite for collaboration, and our approach to building trust and reinforcing the reliability of digital government services.

So, people are at the heart of DIGITAL1ST.

We believe that putting this simple idea at the front of our minds will create the biggest benefits for our citizens, communities, businesses and the economy.

By focusing on the needs of the Queensland community now and in the future, our goals and direction will be shared. We will work together to be a DIGITAL1ST government, delivering the services people expect and that make their lives easier.

We truly believe Queensland can and should be a leader in digital government.

DIGITAL1ST is our next step on this journey.

## We don't have all the answers

It's great to have a vision, but government is a complex set of organisations with different responsibilities, priorities and workforces. Getting everyone to work together on a mission as complex as transitioning to a DIGITAL1ST government is hard enough. When the technological and social landscape is changing around us on a daily basis, it can be even harder.

We recognise that we don't have all the answers. Nobody does. But acknowledging this fact helps us define a realistic strategy that will advance our goal of being a leading digital state.

## We need to work together

One thing we do know for certain is that we need to work together.

Not just with our colleagues in government, but with everyone. We need to work with citizens, suppliers, peers, critics, and communities throughout the state, and draw on their knowledge, experience, insight and creativity to make our vision a reality. We will engage digital thought leaders within Queensland and beyond.

This isn't easy. We need to build on our shared sense of trust and respect. We are growing a track record of delivering reliable digital success, with a shared sense of community and good faith.

## How will DIGITAL1ST advance your future?

As we get this right, we'll see changes in the way a digital government delivers services. Depending on the way you engage with the Queensland Government, you should see differences in the following ways.

**For citizens**, the customers of government services, interacting with the Queensland Government will be transformed. Government services will be easier to access, using channels of your choice and services will be increasingly designed around your needs. You will see how we become more efficient in our service delivery as we use data, information and technology to make our services seamless across all government areas such as transport, health and education.

We will continue to build trust with you in our digital services, by making the most of the information we hold, while ensuring we maintain your privacy. We will be more transparent and share regular updates on our digital initiatives and what the outcomes are for Queenslanders.

**For business and industry**, you'll see that we're using digital technology to make it easier to start and grow a business in Queensland. For example, we are bringing together information on starting a business from across local, state and federal government to make it easier for you to find what you need.

We are making it faster to get your business up and running with initiatives such as the 'starting a café' pilot. In this trial, we have brought together all the licences and permits required in one place, making it quicker to start the most common new business in Queensland, a café.



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As a digital government, we will design, develop and deliver digital services that truly meet people's needs, we will foster better collaboration and connectivity, and we will keep building trust in our services.

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And we are leveraging the Business Queensland website to give you the information you need to explore and build new opportunities, through more usable open data. And this is just a start, we will also harness technology to improve the way we regulate—reducing the time and cost of compliance.

DIGITAL1ST highlights how the Queensland Government will work differently with the expanding digital and ICT industry too. Whether you are a startup, SME or a larger player, the Queensland Government is committed to supporting digital businesses by being a better lead customer of innovation. Given how rapidly technologies are changing, and the opportunities that platforms provide, we know we need to partner in new and different ways with industry if we are to provide the best services to Queenslanders. So we are going to continue to diversify our supplier base, create new testbeds to co-design digital solutions and reduce the burden of doing business with government.

**In government** we have commenced our journey towards becoming a digital government. We have a number of innovative projects underway, but will make more of the opportunities to use new technology as it emerges and as business models evolve. By focusing on our four key priorities and embedding our eight guiding principles, we will work on the right initiatives, collaborate more and build our capability as we iterate and improve. And we will invest in the digital skills of the Queensland public service—not just in technical areas but also in digital leadership, design, and information management, security and analysis.

Measuring and showcasing how we're advancing the digital future of Queensland is a key feature of

DIGITAL1ST. All agencies, through their business and technology leads, will continue to be involved in reporting on our outcomes and refreshing DIGITAL1ST with new actions. Participating in the enabling governance framework we will make sure that DIGITAL1ST delivers improvements to our government services.

It is only by working together that we can build a DIGITAL1ST government that enables a vibrant and thriving Queensland.

## Making our vision a reality

An effective strategy needs to give everyone a shared sense of goals and direction, but it must also be responsive, able to deal with emerging digital technologies and the rapidly advancing expectations of the Queensland community.

DIGITAL1ST is not a list of major projects, it's not a hardware shopping list, and it's not a document to sit on a shelf.

It's a tool to help our diverse government and workforce proceed with common purpose in the face of complexity and disruption, and truly advance our digital future.

That's why this strategy calls out priorities, so that we don't lose sight of what we're trying to achieve. A principles-based approach means that we can respond to emerging issues and explore new technology, but in a consistent way across Queensland Government.

In total, our strategy consists of four priorities, which serve to focus our attention and coordinate our efforts, and eight principles, which act as guiding values to inform decision-making when dealing with the complexities of the digital world.

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# PRIORITIES





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## Where should we focus our efforts?

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### People

People are at the heart of our strategy. We need to empower Queenslanders to grow, change, contribute to and participate in our shared digital future. This includes the people that develop and deliver Queensland Government services. We will build capability so together we can deliver and benefit from a truly digital government.

### Collaboration

We can't do this alone. Government needs to continue working in partnership across the community, industry, small businesses and startups, research organisations—as well as within and between our own departments and agencies. We are willing to rethink everything, from practices such as procurement to formal legislation and regulation, so that we can create a new playing field in which everyone can better contribute.

### Connectivity

Queensland is a big state—and the only truly decentralised state in Australia, in which over half the population live outside of the capital city. We need to take a planned approach to build better connections and digital infrastructure for all our communities. This is not an easy problem to solve and it means we need to work with all tiers of government, communities and industry to deliver the best connection solutions for Queenslanders. Current solutions will not support the services that our communities need, nor the connectivity required for our businesses to compete globally.

### Trust

Queenslanders and the government need to have reliable, secure and trustworthy information so we can deliver leading digital government services. Without trust, we can't build the partnerships we need, join up services, or take the risks required to make the most of the future opportunities for Queensland. We will continue to cultivate public and organisational trust in an increasingly digital government. Not only through security and reliability, but also through empathy and authenticity.

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# PRINCIPLES



As we stay focused on our priorities, we will respond consistently to changes as they emerge

### Principle 1: Solve the right problem

One of the greatest risks in any organisation, large or small, public or private, is spending precious time and money solving the wrong problems. We need to actively find, frame and solve the right problems—the ones that really matter to Queensland citizens and businesses. This means interrogating what we do, broadening our perspective, and synthesizing diverse points of view and challenging existing business models.

### Principle 2: Digital by default

Almost every single one of us expects digital technology to make our personal and working lives easier, including our interactions with government. So, we need to think digital by default. How can a service be conducted online with the greatest simplicity, ease and control? How can we make the most of the data we hold? Can we use or repurpose existing solutions, or think more creatively about how we use technology in general? Digital by default doesn't mean exclusively digital—we know there are other ways people will interact with government. But increasingly, people want government to be digital, so that should be our starting point every time.

### Principle 3: Create unified digital experiences

We want to avoid developing isolated, standalone solutions. Government provides a wide range of laws, regulations, services and infrastructure—in areas such as transportation, health, education, the environment and public safety. Ideally, we want our digital services throughout to be seamless, joined-up and personalised—marrying great user-experience to extensible back-end systems, infrastructure and communication channels. Change cannot just be at the front end, it needs to go to the heart of our organisations and processes. If we do this right, government will come to function less like a set of departmental silos and more like a coherent digital platform that leverages infrastructure across agencies, and has agile approaches to seamlessly working together. More like the other private sector digital services and tools that Queenslanders use every day.

### Principle 4: Prefer open over closed

We share by default and we make every piece of data count. Sharing information and knowledge creates trust, which enables cooperation and good decision making. Sharing means we learn as a community, avoid repeating failures, and gain greater insight to design services around Queenslanders and Queensland businesses. However, we don't share without thought. We have standards around closed, shared and open data as well as privacy standards, which we use and embrace in order to keep building trust.



## Principle 5: Make it secure by design

Data security is complex. People want their data to be secure, but they also want a quick and easy experience that meets their own unique needs. We can't meet expectations if our only approach is to split data up between multiple secure vaults, and then make people unlock door after door to get to it. Instead we need nimble technology and secure networks. But it is more than technology, first and foremost we need people to assess and manage risks if online environments are to be safe and secure. It is much better to share data across the walls of government, acknowledging and supporting the role that everyone—including customers—has in how this information is managed and used.

## Principle 6: Harness skills and experience—from inside and out

Innovation can be risky. We need to learn from the past—however we don't need to be limited by it. Innovation needs creative thinkers with diverse expertise and agile approaches to help us deal with novel and untried solutions. We have immense talent and knowledge within our government departments that is ready to be mobilised. But we also need to continuously build digital skills and awareness in all roles and at all levels of government. Right across our community, in businesses, non-government organisations and academia, we have digital innovators just waiting for us to tap into their expertise and energy. We should bring the right people together to work on the right problems, no matter where they come from. If we are to keep pace within changing customer expectations and technologies then we need to engage in different ways—procuring in days not months, co-investing in research and development, and bringing new partners and solutions to the table.

## Principle 7: Leave no-one behind

When government drives forward with a digital first strategy, what happens to the Queenslanders with limited access to technology or digital literacy? We don't want to leave anyone behind. All digital government initiatives should consider accessibility, capability building and digital inclusion. At the very least, that means accessible alternatives. Ideally, with the support of all tiers of government, it means connectivity and infrastructure that allows all Queenslanders, no matter who or where they are, to participate in our digitally-enabled culture, society and economy.

## Principle 8: Experiment, learn and improve

Big bang, big release, big spend—this can't be the default way of doing digital projects. Given we are providing services in a complex, changing world it makes sense that we design our solutions incrementally. Short, sharp design and development iterations give us a chance to explore our understanding of a problem and test our hypotheses. Co-design with actual customers and subject matter experts provides greater insight and chance of success. Know when to build, when to buy or when to use open source. And by using latest technology, our digital environments can learn in real time and adapt as people use them. If we make time for this process to take place—testing, iterating and scaling on learning—and we plan for positive emergence between great people and good governance, then we have a real chance at delivering breakthrough digital services for our state.

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Our digital

# FUTURE



# We are going to build on our current achievements and keep delivering DIGITAL1ST

A strategy helps us define priorities and set a direction, but it's pointless without action. We're not here to just write documents; we are here to deliver on a digital vision for the Queensland Government. To make things better for citizens and businesses in Queensland.

As we launch our DIGITAL1ST strategy, it's good to know that the foundations of our core technology and our capability are strong, and that we can build on our prior success. The Queensland Government is well positioned to become a digital government leader and our achievements are growing. Here we have captured some examples of the successful work to date across each of our priorities. We have highlighted some of the innovative work that we've got in the pipeline, leveraging emerging technologies to deliver the best digital government services to Queensland.

Our actions are designed to realise benefit and value from our digital investments, quickly and clearly. This will help to drive and maintain change—so the Queensland Government can meet the community's expectations around digital experience.

We know that our world and technology is changing at a rapid pace, so the actions listed as part of DIGITAL1ST are at varying stages of their lifecycle. Other actions will develop during the life of DIGITAL1ST. We will need to respond to changes in the community and use emerging technologies to benefit Queensland.

So, the actions below are not the complete set of what will be delivered under DIGITAL1ST. We will review and update our initiatives regularly, reporting on our achievements and outlining 'what's next'. This will demonstrate that DIGITAL1ST is making a difference to Queensland.

## Priority One: People

For our customers, we are designing services to be more intuitive, joined up across departments, and delivered when and how our customers want them—making the Queensland digital government more personalised. It won't be long until all government services, not just the transactional services, are underpinned by digital technology. We need to make sure that what we do today, lays strong foundations for the digital services of tomorrow. That means we will also focus on building the capability and culture of our workforce too, so we can design, develop and deliver great digital experiences. Just like the future focus for our customers, we are looking to our future workforce as well. The Queensland Government is investing in education and training that will deliver the skills Queenslanders need for the future, and this includes all Queensland Government employees.



## Focus

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Joined-up services that pull together related transactions from across agencies, tiers of government and organisations from outside of government—combining them into single services to make customers' lives easier

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Digital services that make it easier for customers to keep track of their information and transactions with government

## What the Queensland Government has delivered

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**Delivered the Senior Concessions Joined-up Service Pilot** which provides one simple online service where seniors can prove their identity and entitlement and select the concessions they want including: Seniors Card, travel, vehicle registration, rates, gas, electricity and water concessions and business discounts. It is quicker, easier and helps seniors make the most of their money.

Delivered new joined up and personalised services for Queenslanders managing affairs after a death or moving to Queensland; and businesses and researchers seeking grants and assistance.

Delivered the redevelopment of the **Business Queensland** website and through the Business Transformation program, 18 agencies are now using **SmartForms**, with an 87% increase in customer use and 1317% in the value of transactions using SmartForms in 2016–17.

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**Q-Parents portal** is a secure, online portal that provides parents of Queensland state school students with 24-hour access to their child's information, such as attendance records, report cards and timetables.

**The e-Conveyancing portal**, supported by Queensland Treasury and Department of Natural Resources and Mines, makes it easier to obtain land titles.

**The Housing Assist Qld app** is a free smartphone application that helps people seeking housing assistance and public housing tenants to access our services at a time suitable to them. It has been downloaded by over 8700 citizens to date.

**Sortli is a mobile application which provides free guidance** to young people about finances, housing, relationships, health, education and employment options to support their transition to independence. Launched in 2015, it has been adopted by other jurisdictions across Australia.

## What's next

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The **Starting a Café Joined-up Service Pilot** will make it easier for people wanting to start a business, particularly a café, by helping them identify and manage all their required permits and licenses.

Work with the Australian Government to deliver the next generation **Australian Business Licence and Information Service (ABLIS) project**. This will help people looking to start a business by bringing together information on government licenses and registrations.

Development of a **Business Queensland roadmap** including emerging technologies and their ability to improve the interaction between government and business. The roadmap will detail technologies for investigation along with possible release dates.

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**Kicbox** is an innovative mobile and browser friendly application co-designed with young people in out-of-home care and the care team that supports them. Kicbox is an electronic memory box where information, documentation and memories can be stored, providing young people with a more convenient and contemporary way of communicating and sharing information, enhancing their sense of identity and control whilst strengthening relationships with their care team.

**My Account** is being released iteratively and is a secure, personalised dashboard providing Queenslanders with reminders, alerts, relevant information and services and the ability to track the progress of their interactions across government in one place.

## Focus

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Digitally designed online services that meet customer expectations

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Embedding digital technology and infrastructure into our major service areas, for example, health and education

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Building digital capability in Queensland communities and businesses

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## What the Queensland Government has delivered

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**In the last three years the number of online services offered has increased from 40 to more than 500.** Customer take up of these new online services has been immediate and continues to grow. By making services available online, we are helping Queenslanders get things done quickly and easily.

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**Invested in the Digital Hospital Program** delivering digital capability to five public hospitals across Queensland, including the Princess Alexandra Hospital, which became Australia's first large-scale digital hospital in 2015. Digital hospitals provide clinicians with real-time patient information which improves safety and quality of care for patients, and faster treatment to get them home sooner.

**Queensland schools** have been engaging students to learn through the innovative use of technology. **Oakleigh State School** have been developing student's coding skills to understand mathematics concepts and creating digital designs with 3D printing. At **Tallebudgera State School**, students, teachers and parents work together to use digital technologies, with students learning the intricacies of coding, computational thinking, problem solving and how to work with others to create digital solutions.

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**Community Digital Champions** have been working across Queensland since 2015, to improve digital literacy, online participation and digital adoption through community activities and being role models.

Launched the **Digital Scorecard**, a diagnostic which allows SMEs to benchmark their digital capability and identify ways to improve their digital readiness.

The **ePlanning portal** was launched in July 2017, and provides councils and applicants with a streamlined system for development applications that are assessed by the Queensland Government.

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## What's next

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**We are developing new online services that are intuitive and designed for digital.** Our goal is to have all transactions available online, meeting our digital service standard within the term of this strategy.

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**Rolling out digital hospital capability to 24 hospitals** by June 2020, covering around 80% of the acute patient activity across Queensland's 16 Hospital and Health Services.

Taking our **world-class education system** further and preparing our students for the digital challenges of tomorrow. This includes rolling out a digital technologies curriculum, including coding and robotic, across all Queensland state schools. We will also extend our partnerships with industry, universities and researchers to connect students and schools with cutting edge innovation.

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There are currently **66 Digital Champions** undertaking digital inclusion activities across Queensland, with nomination rounds for additional champions open in late 2017.

The third round of the **Small Business Digital Grants Program** will be launched on the back of two successful rounds. In this initiative small businesses will gain more access to technologies helping their businesses to be more competitive in the future.

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## Focus

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Building a digital government workforce

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Upgrading core systems and infrastructure, so people have modern tools to complete their work and keep the cogs of government turning more efficiently

## What the Queensland Government has delivered

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**The Public Service Commission has released a three-year roadmap, and 10-year strategic plan** for the way that the public service will build skills for the future.

**Public Safety Agencies** in South East Queensland are using some of the best technology in Australia. All have access to award-winning **Government Wireless Network**, and **Police Officers** in particular were the first to be **equipped with wearable technology** and given access to real-time data through mobile devices and apps, making them a safer and better resourced force.

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**There has been a reduction in end-of-life technology platforms** across the government.

Many Queensland Government employees have moved to using a vendor supported desktop environment, which assists in the reduction of our exposure to cyber intrusion and data theft.

**Replaced or upgraded 85% of the identified at-risk systems** with those remaining having robust plans in place to mitigate risks pending replacement.

## What's next

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The **Public Service Commission** is actively engaging with the sector through a multi-agency and discipline culture working group to prepare for the cultural transformation that will create the **right workplace culture for the digital future**. Together with the Department of Science, Information Technology and Innovation, work will be progressed on an expanded digital capability program for the Queensland Public Service.

**We are enabling mobility across the public sector workforce** so that our people can collaborate more effectively across locations and agencies. It embraces the concept of 'anywhere—anytime—any device' and optimises the sharing of commodity ICT infrastructure across Queensland to drive better workforce mobility outcomes.

As a government, we have our eye to our workforce of the future too. It is the reason for coding in schools and other STEM initiatives under Advancing Education program, the STEM.I.AM scholarships, and our ongoing commitment to an ICT graduate program within Queensland Government.

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**Using machine learning** to seek insight from our field science data collections. Using algorithmic models to analyse data from a myriad of sources ranging from field sensors to traditional manual surveys.

**Initiating proof of concept cases for intelligent automation** across corporate services using modern and innovative support systems.

Increasing adoption of cloud-based services, in line with the **Cloud Computing Strategy**.

Developing a view of the **digital worker** by leveraging collaboration platforms.



## Focus

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Giving the government workforce the tools to their job today and tomorrow

## What the Queensland Government has delivered

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**Delivered the Mobile Services Program** (MSP) which gives frontline Queensland Police Officers QLiTE devices (iPads) they can use in the field. Officers can search Queensland and national databases for quick and accurate identifications of persons, vehicles and potential threats, which is freeing up valuable police radio communications to manage critical incidents.

**Developed the integrated Electronic Medical Record (iEMR) program** in which patients' medical records are created, stored and accessed electronically. This enables medical staff to see a patient's medical record anywhere and at any time, leading to improvements in patient experience and service delivery as well as reductions in costs.

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## What's next

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**Trialling blended workforces**, for instance trialling humanoid robots in Transport and Main Roads Service Centres and in the Department of Education.

**Implementing iEMR in more facilities**, with the Cairns, Mackay, Townsville and Brisbane's Princess Alexandra Hospitals already digital.

## Priority Two: Collaboration

We don't want to simply automate existing business models that are not relevant in the face of emerging digital trends and community expectations. We know that being a DIGITAL1ST government means that during the life of the strategy, new ways of delivering government services will be best discovered through collaboration. Therefore, we are changing our relationships with the market and the way that we work with all our internal and external partners. We are being more transparent about our business problems and the way we partner for new ways of thinking and new solutions. We are exploring and implementing transformative solutions with our customers, research organisations, academia and industry to meet Queensland's future needs. Within government, we are pulling together to learn from each other, share resources and transform our processes to create better outcomes.

### Focus

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Increase the number of Queensland startups and small to medium enterprises that are providing services to government

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Making it easier to do business with the Queensland Government through a digital marketplace and a review of the ICT mega-category framework; creating incentives for procurement process that match our rapidly changing needs and the pace of technology change

### What the Queensland Government has delivered

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**Launched two rounds of the Small Business Innovation Research (SBIR) grant program** in which we offer open challenges for government agencies, to small businesses, and fund research and development of a new solution, instead of procuring pre-defined solutions.

**Launched the Testing Within Government (TWiG) program in 2016**, a 'sandbox' program allowing SMEs to improve their positioning of their products to address business problems, while collaborating with the Queensland Government.

Round 2 commenced in 2017 with eight government agencies participating.

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Released the **Information Queensland Technology Contracting** framework in consultation with the industry and government agencies.

It is a simpler and faster way of procuring ICT services to better cater for new models, like 'as a service'.

### What's next

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**Review the SME ICT participation policy** to encourage more home-grown digital solutions being used in government, and that SMEs are provided with improved access to the Queensland Government marketplace.

Streamline **accreditation requirements for digital projects** that are up to \$1 million.

Help departments understand how to harness entrepreneurs by developing **The Government Guide to Working with Startups** and creating opportunities for startups and departments to connect, share and solve problems.

Open innovation strategy to encourage engagement through **proof of concept and pilot projects for digital health**.

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**Opening a digital marketplace** for doing business with Queensland Government—reducing the red tape for all sectors of the digital, ICT and other industries.

## Focus

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Big thinking on digital—working with industry and researchers to solve our digital problems and realise digital opportunities: smart, passionate and experienced people—within and outside of government, across different industries, research organisations and the community

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Partner with world-class expertise to develop technologies, government service models and digital products

## What the Queensland Government has delivered

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We have worked with the **PwC Chair in Digital Economy**, digital SME, QUT, industry, customer and service providers to develop a collaborative 'ideation sprint' approach which many agencies have used to develop new solutions to some of our bigger problems.

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Through Advance Queensland, we are creating **new technological innovation** for the whole Queensland community. Through DIGITAL1ST, the Queensland Government are also using these new developments.

A new **software operating system for cloud based data centres**. This software significantly enhances security, reduces capital and operating costs and provides for greater speed and capacity during peak demand periods.

## What's next

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**Digital Think Tanks** will create open communities working across government and with customers, industry and thought leaders to address key challenges. These think tanks will be challenge-focused, promote cutting edge thinking using collective knowledge and input, and evolve over time.

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Through a partnership with Queensland Government, **Data61, the first functional programming lab in Australia** has been opened in The Precinct. Through a series of workshops, courses and co-development, this initiative will bring leading edge technology to Queensland that will be valuable for the community and digital government.

The partnership is also establishing Data61's **Q-Foresight, a strategic foresight service that can be used by government agencies to assist with their understanding of future trends, risks and scenarios** over the next 5–20 years, to best support policy positions and government service models that are relevant to Queensland.

**Digital Health for rural and remote communities** by supporting the creation of an integrated online platform for multi-disciplinary allied health professionals to provide evidence-based digital health support and services to communities, organisations and clients, especially those in rural and remote communities, vulnerable groups and/or those who would otherwise not be able to access quality health services within Queensland, Australia and other countries.



## Focus

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Harness big data—a whole of government approach to innovative data analytics, leveraging and building on the expertise in line agencies. The new power of big data analytics can reveal trends and patterns we did not know about before, and we will gain new insights and evidence for better policy decision making and investment

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Making Open Data useful and usable for the community and industry

## What the Queensland Government has delivered

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**Established partnership with CSIRO's Data61** to harness leading big data capability for Queensland.

Established a **Data Analytics and Information Sharing** team to facilitate whole of government analysis.

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**The Queensland open data portal [data.qld.gov.au](http://data.qld.gov.au) had 2339 datasets** (8691 resources) available to the public as of June 2017.

**Queensland Government rates second in Australia** in the global Open Knowledge Foundation's Open Data Census.

**Queenslanders won 11 out of 35 first place awards at the Australia and New Zealand GovHack 2016 Awards Night**, highlighting the skills and appetite from Queenslanders to use open data to develop new products and services. Most of the Queensland award winners were regional based.

**The Queensland Globe** is providing Queenslanders with access to real-time spatial data, allowing users to add their own data and share what they discover with others.

## What's next

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As part of the partnership with the Queensland Government, a call has been put out for the first round of 'wicked' government problems, the **Big Data Challenges** that can be teased apart using powerful analytics with **Data61**.

Establishing a **pilot for the first multi-agency Data Analytics and Information Sharing project**, to embrace innovative data analytic approaches and explore new ways to adopt emerging technology, such as machine learning, to connect our disparate data sets, identify patterns and trends across Queensland Government, so we can achieve our goals for a better Queensland. From this pilot, we will identify changes we need to make the information management policies within government.

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**Queensland Government's first Open Data Policy Statement** will be released. This will improve the availability and quality of the open data available.

Implement the Queensland Government **Open Data Action Plan 2017-19**.

**Co-design high-value open data sets** that will benefit Queensland's key industries and provide training to SMEs on how to best use open data sets.

**Support GovHack** in 2017 and beyond, the largest open government data hackathon in Australia and New Zealand.

## Priority Three: Connectivity

We recognise that connectivity including digital infrastructure is a key enabler for the future of Queensland, as well as government. We are taking a planned approach to building better connectivity for all our communities. We are rapidly adopting new technology that uses the Internet of Things, especially sensor technology and drones. The way that we use this digital technology now and in the future, has the potential to deliver a shift in government services to the Queensland community. There are more exciting opportunities to discover as new technology emerges.

### Focus

Improving regional connectivity for our government agencies to enhance digital service delivery to regional communities

### What the Queensland Government has delivered

Together with Data61 we have completed an **audit of the current state of digital infrastructure in Queensland and an analysis of future demand**, so we have the right information about where to start improving our regional connectivity.

Successfully conducted a **proof of concept** for a **multi-agency network approach** to digital infrastructure in Roma, to explore more efficient approaches for multiple agencies to share infrastructure in regional communities.

### What's next

**Developing a Digital Infrastructure Plan** to implement on an iterative basis to ensure investments are made wisely and local issues for regional communities are incorporated into strategic planning.

Building on the **regional connectivity within government proof of concept** in Roma, we will investigate opportunities to duplicate the success of this model in other regional centres, on an iterative basis to improve outcomes for all government services in regions.

## Focus

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Partnering with other tiers of government to improve connectivity for Queensland communities

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Moving towards government as a platform: Investing in and designing digital components that are designed to be shared and used across government departments and services

## What the Queensland Government has delivered

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**Developed the Mobile Black Spot Program**, a three-year program to improve mobile phone coverage across Queensland. The Queensland Government has committed just under \$24 million to partner with the Australian Government and carriers. This will deliver 144 new and improved mobile base stations which will significantly improve connectivity across Queensland.

The Department of Education's **Broadband Upgrade Project** resulted in a substantial financial commitment to Telstra and helped to drive installation of 144 km of fibre optic cable to Aurukun and Kowanyama. The fibre optic cable has allowed the mobile tower at Aurukun to be upgraded from 3G and 4G, and it will also facilitate the delivery of broadband ADSL2 services to Aurukun and Kowanyama over coming months.

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The Queensland Government was the **first government in Australia to develop a single customer log-in and digital proof of identity solution**, taken up by 270,000 Queenslanders. The solution provides Queenslanders with a simple, single, secure log-in to access any online Queensland Government service, including those that require customers to verify their identity. This is a **foundational platform component** for future government service delivery.

## What's next

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**Delivering the Mobile Black Spot Program.** Construction of towers from round one and two are underway throughout the state. Preparing applications for Round 3 of the program.

The Department of State Development is involved in a major project in the **Barcoo-Diamantina region** that will link the towns of Windorah, Birdsville, Bedourie, Jundah and Stonehenge through an optic fibre network. This will bring 100s of kilometres of high speed internet and 4G mobile services to the region, which will enable the communities and digital government services.

The Department of Education is working to **boost broadband connectivity to Queensland schools**. To June 2017, over 1000 sites have been upgraded, with over 200 upgrades planned for the future.

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Taking the components that we have designed, such as identity, registration, payments, enquiry tracking and service information and planning out an iterative implementation for **joined-up, yet personalised, user experiences**.

**Designing the platform componentry** required for real-time integration with other levels of government, non-government organisations, industry, research organisations or other jurisdictions, for the benefit of Queenslanders.

## Focus

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Increasing use of sensor technology and Internet of Things to improve data gathering around the state

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Smarter and more connected communities: The government will continue to partner with communities across the state to identify opportunities for digital solutions to support increasingly productive, accessible and livable Queensland—attracting talent, encouraging innovation, and creating jobs

## What the Queensland Government has delivered

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**Introduced drones as part of turtle conservation on Queensland's Raine Island**, minimising the impact on this sensitive environment.

**Introduced drones to monitor state-owned land** to understand the state of repair, weed management, and work to more effectively to conduct our surveys and manage these assets.

Through the **Advance Queensland** Research Fellowships, Innovation Partnerships, Ignite Ideas and Platform Technology programs invested in developing new Internet of Things solutions and 'system of systems' in sectors such as agriculture, energy and resources, manufacturing and health.

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The Advance Queensland initiative is supporting projects across Queensland that are using **digital and platform technology** to improve outcomes for government, business and citizens.

Investing in, and partnering with **smart city accelerators**, such as BlueChilli's CityConnect can encourage the development of technology startups who can help cities and towns become more liveable and prosperous.

## What's next

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**Working with the other tiers of government to expand our commitment to sensor technology and IoT** for improved livestock sensing, better disaster resilience, safer flights, health wearables, future policing and bio-security.

The government is supporting development of **Machine Learning for the Smart Grid**, large-scale machine learning methods to manage supply and demand in a smart grid with big data analytics. Using the tremendous data being collected by sensors equipped with substations, transformers, solar PV panels, batteries, smart meters, and various smart home appliances, this smart grid will enable more effective use of renewable sources.

**Sensors in traffic management** through Advance Queensland, the government is supporting the development of a low-cost, accurate sensor that will provide automatic traffic monitoring information. The sensor will automatically flag events of interest including anomalies like accidents, congestion or transgressions which require law enforcement to intervene. This will enable more informed decisions about the managing the road network.

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Advance Queensland is supporting a project to develop cutting edge **Digital Pathology and Telepathology (DPT)** technology to significantly advance the Queensland Health care system. Pathology plays a crucial role in Queensland's health care system being the scientific basis of 70% of medical diagnoses. It is projected that Queensland will experience an increase in demand for these services, as well as a shortage of pathologists in the near future. Digital pathology will help provide a smarter solution to pathology services, addressing these issues.



## Priority Four: Trust

We are balancing the way we use information to deliver services to make our lives easier, with responsible data analytics, information management, transparency and security. We are proactively managing our information so we can make better policy decisions and deliver better customer service by using the insight gained from the data government holds. As government service delivery becomes more digital and reliant on data, security of information and being trusted custodians of information, grows in importance. We recognised this important role early on, and have invested in programs for both people and technology to make the Queensland Government more secure and resilient, now and in the future.

### Focus

Develop an information sharing framework that promotes sensible and responsible sharing, such that it helps rather than hinders

Making it easier for customers to identify and authenticate themselves when using online government services

Furthering our commitment to integrity, accountability and open government by improving the digital access to government records

### What the Queensland Government has delivered

**Completed an audit of the current information sharing legislative framework**, identifying barriers that to be addressed with approaches such as anonymised analytics.

**Delivered a digital identity platform for customers**, as the first step in the information management chain.

Queensland State Archives has completed market sounding for a **Digital Archive**. This will transform preservation, storage and access to digital records, including records that are 'born digital'.

Progressed digitisation of priority holdings of the Queensland State Archives.

Achieved over a 3000% increase in records accessed through the use of online hosting platforms, including Flickr.

### What's next

**Developing policies, standards, and legislation** to enable safe sharing of data for community benefit.

**Expanding on our digital identity platform** to enable customers to have more secure access to personalised services and information.

Deliver phase 1 of the **Digital Archive** program.  
Pilot the use of **virtual and augmented reality** applications using Queensland State Archives  
Launched new **multi-media platforms** to enable Queenslanders to access and create stories about the heritage of Queensland.

## Focus

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Ensuring that government continues to be a trusted provider of digital services that protects information without curbing innovation

## What the Queensland Government has delivered

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Appointed a whole of government **Chief Information Security Officer** in 2016.

Established a specialised, **whole-of-government Cybersecurity Unit** in 2016 which conducts a number of services such as vulnerability scanning.

Conducted **cybersecurity exercises** with Queensland Government agencies and Federal Government to test existing cyber response processes and procedures.

Upgraded government systems to **enhance our cyber posture**.

## What's next

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Delivering **best practice cybersecurity initiatives, health checks to executive leaders across government** to increase ability to prevent, detect and respond to cyber-attacks.

Maturing the range of **cybersecurity exercises across government stakeholders harnessing next generation technologies**.

Piloting with Cert Australia on the **Joint Cybersecurity Centre**, under the National Cybersecurity Strategy. The centre is the first outside of Canberra and is an important activity to improve our cyber defenses across government, critical infrastructure owners and businesses.

**Exploring opportunities to collaborate with research organisations** on activities such as cyber range initiatives to manage and mitigate our cyber risks.

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Enabling

# GOVERNANCE



## How we will facilitate progress in a high-pace environment

### We will use our governance processes to help us deliver:

#### Governance that creates valuable outcomes

We are about outcomes, not just outputs. DIGITAL1ST is a strategy to help us deliver digital initiatives, programs, projects and services that make a difference to the lives of Queenslanders. Therefore the governance approach should be driven by the business of government, not the IT of government, and it should actively help us deliver on these outcomes.

#### Governance that is agile and responsive

No longer will one governance model suit all programs and projects. Where agile ways of working are adopted, governance needs to enable and manage exploration—to predict, test and iterate, so we can course-correct early, validate ideas easily and frequently, and invest more wisely throughout the life of our digital initiatives. Likewise, where agile methods are proposed, new approaches are needed to business case development and assessment. Base products can be delivered more quickly, risks can be better managed, return on investment is quicker—but benefits will be emergent, and costing can be 'time-boxes' of work rather than for end-to-end delivery of a solution. This will require change to the way government organises itself, and long-held processes.

### Governance that is data driven and creates alignment

Major work is already underway, and our digital future is active and complex. Key initiatives increasingly involve multiple agencies and partners. Significant progress has been made in building interoperable solutions, using common platforms and increasing data sharing. But there is more to do.

We will continue to leverage and enhance our common standards, skills and data insights to enable best practice delivery at all levels from portfolio to project, and even guidance for business as usual enhancements. This will help us highlight successful outcomes, and deliver initiatives more efficiently across government. We will also build on the successes of our strategic sourcing, to leverage whole-of-government purchasing power.



## Our enabling governance structures for DIGITAL1ST

### The Directors-General ICT Council

The Department of Science, Information Technology and Innovation is accountable for the whole-of-government ICT reform agenda and initiatives. The department uses the council to provide guidance and prioritisation to these initiatives.

At an agency level, Directors-General are accountable for their agency's digital strategy and ICT investment, ensuring appropriate value for money and monitoring ICT risks. These activities are also overseen by the council, in line with our assurance frameworks.

The Directors-General ICT Council has made significant progress in overseeing more than \$3 billion worth of digital and ICT investments since its establishment. The council will work across government to strengthen our governance, assurance and investment approaches and implement a portfolio governance model that can stay close to business problems, support digital transformation and drive delivery of the DIGITAL1ST strategy.

### The Digital Governance Framework

The Queensland Government has a clear framework in the Queensland Government Enterprise Architecture (QGEA) to govern, plan and manage ICT initiatives. The QGEA promotes and publishes digital and ICT policy and best practice guidance to ensure successful outcomes from the government's digital investments. We will continue to extend the QGEA framework and refresh and develop new supporting strategies, policies and best practice to ensure that the DIGITAL1ST agenda responds to the service delivery needs of Queenslanders.

This will include:

- enhancing specific strategies such as cloud, cybersecurity and infrastructure
- refreshing agency-specific digital strategies to align with DIGITAL1ST
- strengthening investment review processes
- ensuring that guidance and standards support the effective delivery of digital change initiatives, and
- building on the transparency provided by the ICT Dashboard, to enhance monitoring and reporting on the benefits of digital transformation.

### Regulation in the digital age

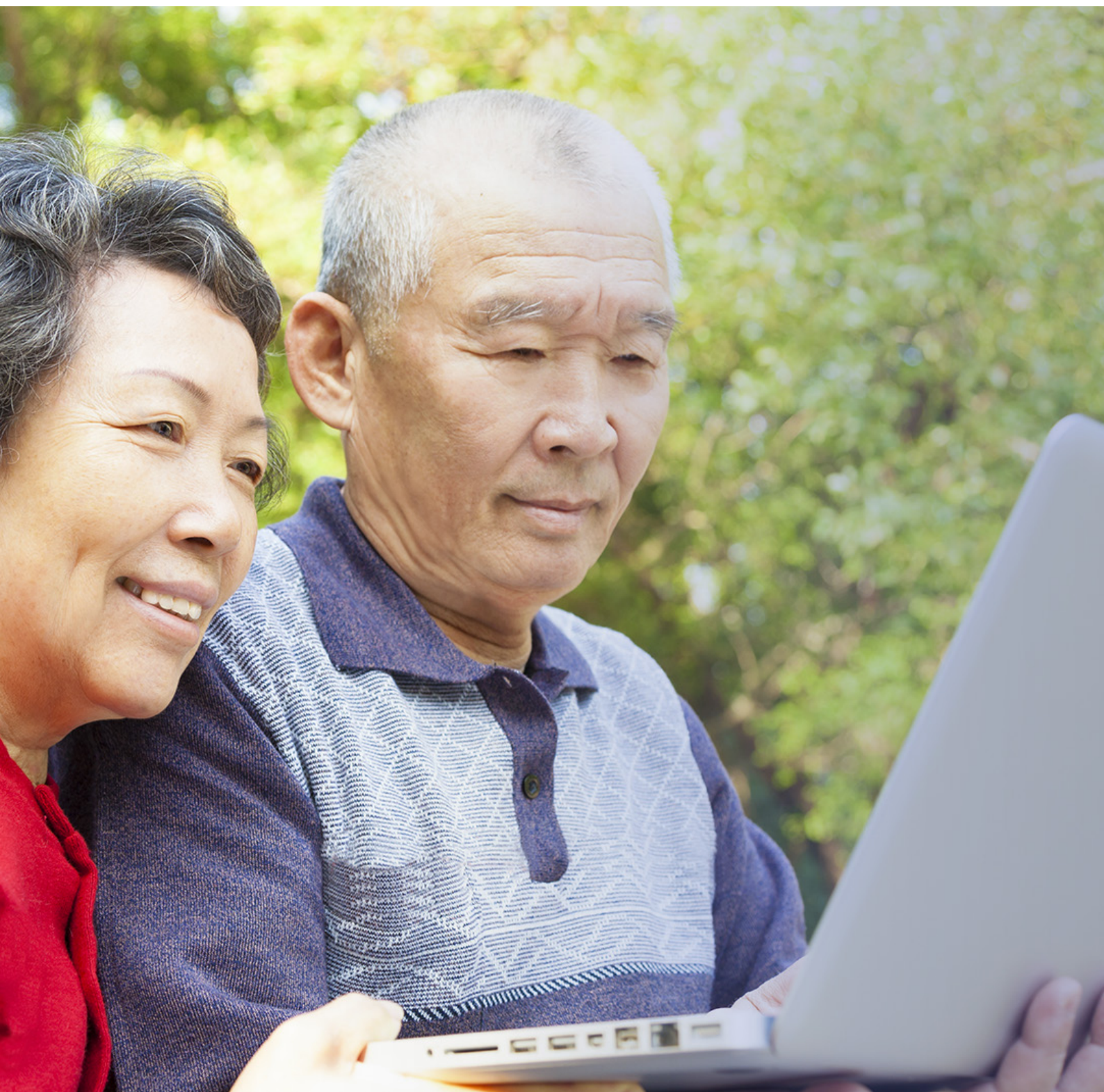
We need to ensure approaches to regulation are keeping pace with the changes in industry, workforce and the broader economy—changes that are being driven by digital disruption. New technologies and digital platforms are allowing new entrants to scale rapidly and disrupt whole industries. This is important for our community, consumers, existing industries, as well as businesses and tech startups who are developing new business models that are changing the face of work.

Government needs to better anticipate emerging trends, understand the potential impacts for Queensland and develop appropriate responses that balance the interests of many players. To this end, we will draw upon leading digital experts to assess the potential impacts of disruptive technologies and how government can better position Queensland for the future. This work will be progressed in conjunction with the Better Regulation Taskforce, which is set up under the Queensland Small Business Advisory Council.

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# MEASURES



# How we will track our success

## Measuring impact

The success of DIGITAL1ST is not measured in the throughput of projects. Delivering more does not necessarily mean we're improving the lives of Queenslanders.

Measuring the true impact of our strategy means we must define what we want to achieve and make testable predictions.

For example:

- If we increase the connection and personalisation of services, we should see increased customer satisfaction ratings
- If we improve workforce culture and capability, we should see improved service quality and workplace satisfaction ratings

- If we make procurement more flexible and transparent, we should see an increase in long-term business and industry investment
- If we increase government collaboration with research organisations, we should see improvements in R&D output and the employability of graduates.

To implement this more substantive approach means we will need to define new methods for capturing and interpreting relevant data, and then representing this for both internal and public consumption.

## Measuring sentiment

To provide a trend of movement towards our vision, we will collect and measure sentiment data related to our strategic priorities. An example of the measures we may capture against each priority are listed in the following table.



## Priorities

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### 1. People

For our customers:

'Are you satisfied with Queensland Government's digital services?'

A customer sentiment rating on government's services.

For our workforce:

A number of staff sentiment questions on working in government, whether they have the tools and equipment to deliver digital services, and the collaboration of government culture.

### 2. Collaboration

'Would you recommend working with the Queensland Government?'

A partner or inter-agency rating on experience of collaborating with government.

### 3. Connectivity

'Are you able to effectively connect to Queensland Government's digital services?'

A customer rating on how well Queensland's digital connectivity and infrastructure is meeting customer's digital needs.

### 4. Trust

'Are you satisfied with what the Queensland Government is doing to secure information?'

Customer sentiment rating on the perceived trust and protection that government puts in place for the data it holds.

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## Measuring our investments

The Queensland Government ICT Dashboard provides an at-a-glance overview of all major government ICT projects currently underway, allowing users to track their progress over time.

Currently the dashboard does a good job of tracking projects in terms of time and expenditure, but we also want to represent projects in terms of impact. Therefore, we want to evolve the ICT Dashboard into a digital dashboard, to include the projects working towards the priorities outlined in DIGITAL1ST.

### Digital dashboard

We want to capture information about how our investments in digital and ICT projects align to the priority areas in DIGITAL1ST. It might not always be a neat fit as projects can be complex, but based on what we have seen from our current initiatives referenced in DIGITAL1ST, each investment can align to one or more of the priorities. For example, a project establishing a new multi-tenanted government building could be aligned to collaboration and connectivity. By aligning investments to priorities, we should be able to develop a more streamlined view of our portfolio and the value of these investments can then be better considered by the Directors-General's Council.

## Impact evaluation

The impact evaluation will be a new element on the digital dashboard. It will leverage the impact evaluation methodology used in other innovation-focused areas of government, such as Building Queensland and Advance Queensland. We're going to keep it as simple as possible, taking into account each project's context, maturity and unique business considerations.

### This will be an ongoing process

When all the measures are viewed collectively, that is, the dashboard information as well as the sentiment data, we should have some insight as to how we are tracking in delivering DIGITAL1ST and becoming a better digital government. Once we have the initial insight, we will look at more ways throughout the life of DIGITAL1ST to mature our measurement and evaluation methodology. We will be responsive in reporting back on the outcomes through the Directors-General ICT Council we are achieving as part of DIGITAL1ST.

## Feedback

DIGITAL1ST is the next step in advancing Queensland as a digital government. True to the spirit of the strategy, we want to be accessible and encourage dialogue. We take all feedback into consideration and will aim to respond to you promptly. Please contact [qgcio@qgcio.qld.gov.au](mailto:qgcio@qgcio.qld.gov.au)



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