

A dramatic sunset over an industrial port. The sky is filled with warm, golden light and scattered clouds. In the foreground, the silhouettes of two large cranes are prominent against the bright sky. Below them, the dark outlines of industrial buildings and a body of water are visible. The overall mood is one of quiet activity during the end of the day.

OVERVIEW

ADVANCE QUEENSLAND

We are investing in innovation to drive economic growth and create jobs in our regions. Advance Queensland is delivered by nine Queensland Government departments in partnership with industry, businesses, universities, startups, investors and the Queensland Chief Entrepreneur.

MORE THAN \$1 BILLION INVESTED TO MAKE QUEENSLAND'S INNOVATION ECONOMY STRONGER

Supported **16,400+** Queensland jobs

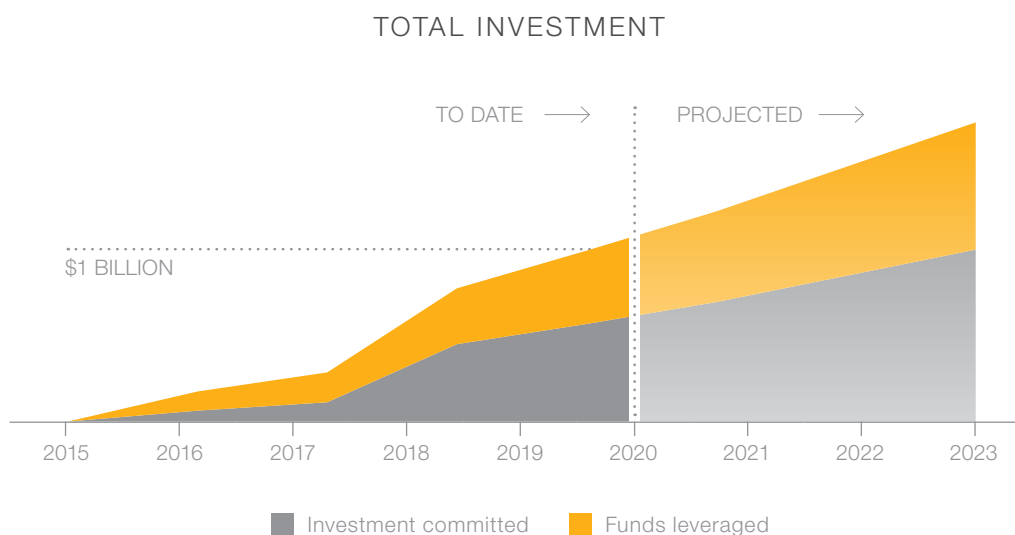
60%+ of funding recipients are in regional Queensland

45% of jobs supported are in our regions

WE'RE BACKING QUEENSLAND INNOVATORS AND INVESTORS ARE BACKING US

A **\$755 million** investment by the Queensland Government

Over **\$670 million** has been committed by program partners



A landscape photograph featuring a dirt road in the foreground, a line of trees in the middle ground, and a dramatic, cloudy sky. The text 'FOREWORD' is overlaid in the center.

FOREWORD

ADVANCE QUEENSLAND IS OUR CATCHCRY FOR THE FUTURE DEVELOPMENT OF OUR GREAT STATE.

Since 2015, this Government has committed \$755 million to Advance Queensland to support 16,400 jobs and to date, leveraged more than \$670 million from universities, industry and venture capital groups.

Advance Queensland is about innovation. Innovation is a word that means different things to people.

Alone, and without explanation, it can scare people about the future and the employment opportunities for themselves and their family.

Yes, it does mean change.

But it is a change we need to embrace and work with – not against.

Queensland throughout its 160 year history has been able to adapt and must now look for the commercial opportunities for now and the decades to come.

We proved that Smart State was more than just two words. Queensland has gone on to create a world-class research base and strengths in technology, aviation, mining and agriculture.

Our state is the most decentralised mainland state in the nation.

Yes, the south-east corner has the population concentration but it is our regions that have proven to be the most resilient, building on their strengths whether that is mining, tourism, agriculture and food, livestock, manufacturing or the environment.

And as at 30 June 2019, 45 per cent of jobs supported by Advance Queensland programs were attributed to regional recipients.

From these strengths and resilience we must now harness our existing expertise and skills and create the opportunities not only nationally but beyond our shores.

Technology and connection are important tools.

That is why the Government established the Queensland Capacity Network Pty Ltd (trading as QCN Fibre) to utilise 6,000 kilometres of state-owned optical fibre along the east coast of Queensland providing faster, more reliable internet for regional Queensland.

We need to enable industry leaders to apply their technology and knowledge to other sectors.

In a time of heightened climate awareness, Queensland's tropical and sub-tropical knowledge in a range of sectors is marketable and needs to be commercialised on the international stage, as the next phase of industrial global growth will be in these temperature zones.

In short, that is what Advance Queensland is – ensuring our great state is growing beyond our backyard and helping our people and industries expand and meet the global challenges of tomorrow.



Anastacia Palaszczuk MP

Premier of Queensland and Minister for Trade



Kate Jones MP

Minister for Innovation and Tourism Industry Development and Minister for Cross River Rail



Ms Leanne Kemp is Queensland's Chief Entrepreneur and the Founder and CEO of Everledger, a leading blockchain technology company.

In 2019, Leanne co-chaired two future industry sessions at the World Economic Forum; in the Circular Economy and Advanced Manufacturing. Leanne is an appointed member of the World Economic Forum's Blockchain Council, Co-Chair for the World Trade Board's Sustainable Trade Action Group, and on the IBM Blockchain Platform Board of Advisors.

QUEENSLAND'S CHIEF ENTREPRENEUR

INDUSTRY IS IN THE MIDDLE OF ITS FOURTH REVOLUTION, WHERE THE VIRTUAL AND REAL WORLDS ARE CONVERGING AND WHERE GOODS CAN BE PRODUCED AT UNPRECEDENTED SPEED, FLEXIBILITY AND UNMATCHED LEVELS OF EFFICIENCY TO MEET SHIFTING CONSUMER DEMANDS.

New technologies and ways of thinking are creating opportunities for industries to leverage their existing competitive strengths and improve productivity – leading to more sustainable economies, communities and environments. New industries are emerging, defined by social and environmental responsibility with human solutions at the centre of innovation.

To access these opportunities will require agility – ongoing skills development in technical fields, as well as a new set of unique skills that will support adaptability, critical thinking and problem solving.



Future-ready education systems will require curricula fit for the 21st century that will build an education that provides a solid foundation for a lifetime of adapting and developing new abilities.

Establishing new networks for collaboration and the mobilisation of commitment will require stronger partnerships between government, industry, researchers, investors and innovators. Clusters, precincts and supply chains across sectors and disciplines are diversifying our regional economies, creating more sustainable regions to harness new opportunities for economic growth across the state.

On my regional tour of Queensland, I met with almost 2,000 innovative Queenslanders and saw how our grass-roots entrepreneurship and Advance Queensland programs are fueling new ideas and, in turn, creating new jobs that will help to sustain our communities.

A photograph of two men in a workshop. The man on the left is seen in profile, wearing a maroon polo shirt and has a beard. The man on the right is bald, smiling, and wearing a blue checkered button-down shirt. They are standing in front of a large piece of machinery, possibly a car. The background shows a workshop environment with a chain-link fence and overhead lights.

**A STRONGER
INNOVATION
ECONOMY**

NEW TECHNOLOGIES AND BUSINESS MODELS ARE DRIVING RAPID CHANGE FOR INDUSTRY, WORKERS AND COMMUNITIES.

Innovation and the ability to adapt are critical for economic success, and our future will be driven by a series of social, environmental and economic shifts that will change the way we live and work.

New innovative economies will capture the need to be more productive, resilient, agile and adaptable to change, making them better placed to support and create the jobs of the future.

By working with our existing regional industries and their inherent strengths, we can help find the commercial opportunities of tomorrow. Innovative businesses are more profitable and competitive, and more likely to export and create more jobs.

The Queensland Government has long recognised the importance of science, technology and innovation in driving economic growth, from Smart State in 2008 to Advance Queensland today.

Advance Queensland addresses recommendations by Harvard Professor Josh Lerner, and focuses on developing these strengths through engagement, collaborative initiatives, and investments in key projects that drive growth through innovation.

In partnership with business and universities, this Government is building Queensland's innovation economy and translating ideas into commercial success, to create pathways for new businesses and jobs for Queenslanders.



FUTURE PRIORITIES

Our priorities were identified through extensive stakeholder consultation, and will enable us to focus our efforts, solve our big challenges, ensure Queenslanders are prepared for the work of the future – and create jobs through innovation.

Our future priorities and key directions build on the review and evaluation of the Advance Queensland initiative to date, and research about innovation in Queensland. Our stakeholders have confirmed Advance Queensland is working and endorsed the new direction for our collective effort.



BUILD ON QUEENSLAND'S STRENGTHS

We will create jobs through innovation in our traditional strengths such as agriculture, manufacturing, resources and tourism, and encourage new industries based on our state's assets, like biofutures.



BACK OUR REGIONS TO COMPETE GLOBALLY

We will work with regional communities to grow their unique competitive advantage to build industries and create jobs.



SCALE UP LOCAL SOLUTIONS FOR NEW MARKETS

We will work together to scale up our entrepreneurs, startups, small-to-medium enterprises (SMEs) and businesses by helping them commercialise ideas, linking them to investors and making global connections.



INVEST IN SCIENCE AND TECHNOLOGY TO CREATE JOBS

We will use science and technology to commercialise research and solve the challenges facing Queensland and the world including climate change, protecting the Great Barrier Reef, and energy and water sustainability.

KEY DIRECTIONS

The key directions for our priorities represent how we will work towards building our innovation economy in Queensland. They represent opportunities to achieve growth and create jobs through innovation. Each key direction will be delivered in partnership with our stakeholders and guide the next generation of action in Queensland.



BUILD ON QUEENSLAND'S STRENGTHS

- ▶ **Build world leading clusters:** help business, industry, social enterprises, training providers, researchers and entrepreneurs to work together and collaborate to drive innovation in industry
- ▶ **Position Queensland as a global testbed for new technology:** attract new investment and create opportunities to be world leaders
- ▶ **Grow cleantech:** support the development of renewable materials and energy sources, and to re-imagine waste to create new economic opportunities
- ▶ **Prepare industry for change:** encourage industry 4.0 through the development and uptake of new technologies, processes and capabilities that create jobs in our industries
- ▶ **Focus our effort:** back our strengths in robotics, artificial intelligence and autonomous systems such as drones



BACK OUR REGIONS TO COMPETE GLOBALLY

- ▶ **Unique competitive advantage:** work with regional communities to grow their strengths to build industries, harness opportunities and create jobs
- ▶ **Collaborating for global opportunities:** foster regional partnerships, enhance collaboration and precincts to connect regional Queenslanders to markets, talent and opportunity
- ▶ **Ready for work and change:** support existing and new workers to have the skills they need for the future of work. Develop flexible ways for workers to get the skills they need
- ▶ **Scale across industry silos:** enable industry champions to apply technology and solutions to other sectors
- ▶ **Advance connectivity:** improve the quality and speed of the internet in regional communities



SCALE UP LOCAL SOLUTIONS FOR NEW MARKETS

- ▶ **Build the pipeline:** support new entrepreneurs to start, grow and go global
- ▶ **Create global pathways:** help Queensland startups and SMEs to launch and grow in global markets
- ▶ **Attract talent and capital for scaling:** connect startups with the talent and capital they need to grow
- ▶ **Win-win for big and small:** link major corporations with startups and SMEs and help SMEs to capitalise on emerging technologies and the digital economy
- ▶ **Enhance small business capability:** build the know-how of small businesses to increase profitability and remain competitive through technology
- ▶ **Government walks the talk:** establish the Queensland Government as a lead customer of innovation
- ▶ **Inspire social innovation:** harness social enterprise to solve the challenges facing Queenslanders



INVEST IN SCIENCE AND TECHNOLOGY TO CREATE JOBS

- ▶ **Science for solutions:** support translation and commercialisation of science to solve big challenges
- ▶ **Missions that matter:** focus innovation effort and collaborate to address the big challenges facing Queensland: protecting the Great Barrier Reef; energy and water sustainability; improving healthcare; and responding to climate change
- ▶ **Big data for better outcomes:** better use of data to improve government services to Queenslanders and unlock opportunities for businesses
- ▶ **Create a job:** encourage entrepreneurship as a job option and equip young people with the skills to start their own business

A photograph of two construction workers in orange high-visibility workwear and white hard hats. They are standing on a construction site, looking down at a large set of blueprints they are holding together. The background shows a corrugated metal roof structure and a clear sky. The text 'DELIVERING OUR STRATEGY' is overlaid in large, white, bold, sans-serif capital letters across the center of the image.

DELIVERING OUR STRATEGY

IMMEDIATE ACTIONS

Advance Queensland has successfully created significant momentum towards building our innovation economy. We will focus our ongoing whole-of-Government effort and future investment towards achieving our priorities. Our immediate actions start this work and represent several initiatives to extend the work of Advance Queensland.

✓ BUILD ON QUEENSLAND'S STRENGTHS

- Establish a **field robotics industry cluster**, focusing on mining, defence, agriculture and the environment
- Support a new **AgTech and Logistics Hub** in Toowoomba
- Develop a **Skills Implementation Plan for Advanced Manufacturing**

✓ BACK OUR REGIONS TO COMPETE GLOBALLY

- Improve the quality and speed of internet services in regional Queensland through **QCN Fibre**
- Deliver a new connection with **Townsville's Regional Data Centre** through **QCN Fibre**
- Invest in a **Rockhampton Technology and Innovation Centre** to provide hands-on training and skills in robotics and automation technology
- Deliver the **Regional Entrepreneurship Acceleration Program** in Toowoomba, Gladstone and Mackay to encourage localised solutions and job creation
- Develop an **SEQ Innovation Precincts Strategy** that can be rolled out across regions

✓ SCALE UP LOCAL SOLUTIONS FOR NEW MARKETS

- Partner with TAFE Queensland to support uptake of **new high tech skills training** across Queensland
- Support the growth of **social enterprises** to deliver economic and social impact for Queensland
- Champion **innovation in government** and establish government as a lead customer for innovation
- Promote **investment-ready Queensland startups and SMEs** to international investors through Trade and Investment Queensland
- Provide a **pipeline of innovation opportunities** for Aboriginal and Torres Strait Islander peoples through the Deadly Innovation Strategy

✓ INVEST IN SCIENCE AND TECHNOLOGY TO CREATE JOBS

- Develop a **Queensland Science Strategy** to drive the impact and value of Queensland science
- Leverage Australian Government and industry funding through the **\$25 million Research Infrastructure Co-investment Fund**
- Target research funding towards priorities, including water and energy sustainability, healthcare, climate change and the **Great Barrier Reef**

A large, spreading tree with a thick trunk and many branches, casting a long shadow on the grass. The background shows a grassy field and distant mountains under a blue sky with some clouds.

**BUILD ON
QUEENSLAND'S
STRENGTHS**



WE WILL CREATE JOBS THROUGH INNOVATION IN OUR TRADITIONAL STRENGTHS SUCH AS AGRICULTURE, MANUFACTURING, RESOURCES AND TOURISM, AND ENCOURAGE NEW INDUSTRIES BASED ON OUR STATE'S ASSETS, LIKE BIOFUTURES.

New technologies are unlocking opportunities for both traditional and emerging industries through new applications of our resources and skills.

Industry 4.0 is connecting machines with data to transform advanced manufacturing into smart manufacturing – changing the competitive landscape and creating new jobs across all sectors.

The biofutures industry uses innovative scientific and industrial technologies to create new products made from sustainable organic or waste resources.

Queensland's remote areas and extreme conditions have led to emerging expertise in robotics, unmanned aerial vehicles and big data analytics.



PRIORITY INDUSTRIES

The government has identified Queensland's priority industries that support growth and knowledge intensive jobs.

The roadmaps and strategies include:

- ▶ advanced manufacturing
- ▶ aerospace
- ▶ agriculture and food
- ▶ biofutures
- ▶ biomedical
- ▶ defence
- ▶ hydrogen
- ▶ mining equipment, technology and services (METS)
- ▶ screen industry
- ▶ resource recovery
- ▶ tourism

DIRECTIONS

BUILD WORLD LEADING CLUSTERS

Queensland will be home to clusters of industry, research, entrepreneurs, social enterprises, and skills and training providers, solving key problems that will enhance global competitiveness leading to new jobs.

POSITION QUEENSLAND AS A GLOBAL TESTBED FOR NEW TECHNOLOGY

Queensland will be a global centre for testing and trialling new technologies, attracting global R&D investment to our state and creating new opportunities for local innovators and industry.

Attracting more R&D to Queensland will increase links to global supply chains, create new paths to market for SMEs, generate manufacturing activity and create opportunities for locals to engage with international projects.

GROW CLEANTECH

Sustainable growth is underpinned by technologies and business models that create positive changes in how we interact with our environment. We will grow a significant cleantech sector in Queensland to fast track sustainable growth – creating products and services that will benefit the economy and the environment. The global transition to a circular economy, keeping products delivering value to the economy for longer and re-imagining waste, provides opportunities to improve sustainability and create value.

PREPARE INDUSTRY FOR CHANGE

Our industries will be ready to take advantage of new technologies, processes and capabilities made possible through industry 4.0 to improve profits, create jobs, and increase exports. We will work with industry, supply chains, SMEs and startups to support development and uptake of new technologies, processes and capabilities that create jobs and improve business performance.

FOCUS OUR EFFORT

We will focus our effort and back our strengths in:

- ▶ robotics
- ▶ artificial intelligence (AI)
- ▶ autonomous systems



CASE STUDY

DRONES AND AUTONOMOUS SYSTEMS

Drone technology is one of the fastest growing industries in the world.

Queensland is emerging as a national and international hub for R&D of drone technologies. This is an example of how a cluster of related industry and research activity can create a strength.

Queensland became the national headquarters of the first Defence Cooperative Research Centre (CRC) for Trusted Autonomous Systems in 2018. The Queensland Government has committed

\$51 million towards the CRC to position the state as a leader in the testing, trialling and development of trustworthy smart-machine technologies for use by the defence industry.

Shifting their headquarters from Sydney to Brisbane 20 years ago, Boeing Defence has now established its biggest autonomous systems R&D project outside the United States of America in Queensland. Fourteen local businesses have shared in **\$2.3 million in contracts** which are creating more than **130 jobs in Queensland**.

