

MOONSHOT

Submission to:

Inquiry into job creation opportunities in Queensland arising from the establishment
of an Australian space industry

Of

State Development, Natural Resources and Agricultural Industry Development
Committee

By:

Moonshot

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With a growing reliance on information derived from space infrastructure, such as the use of earth observation data and GPS in precision farming, the space economy is evolving rapidly into a broad range of activities and value drivers.

The space industry spans activity from design and manufacture of technology and hardware, to the launch and operation of space infrastructure and the application of space-generated data in endless applications on earth.

Considering that over the past two decades, the maturing and decline of more traditional industry sectors across the Australian economy has created deep and often devastating impacts in many regions, the burgeoning space industry holds great promise.

Where more traditional industries can rely on extensive infrastructure, much of the new space economy is accessible to ventures of any size, in any location.

The Australian space industry is not new. Estimates for the 2015-16 financial year include revenues of nearly \$4 billion and employment of over 10,000 people.¹ Successful, space-related businesses exist across Australia today, from tiny startups to divisions of multi-nationals.

What is happening in Australia today is the massive expansion of the space industry, with new products, services and business models for space-related commercial activity emerging rapidly and the recent establishment of the Australian Space Agency.

The space economy is accessible to both new and established companies and the potential for employment growth is real and widely distributed.

Jobs Creation in Queensland

There are already many space-related businesses operating in Queensland, from multi-nationals to home grown outfits such as Gilmour Space Technologies and they are all employers. The opportunity for new jobs creation, from the growth of the Australian space industry, is significant and can come from startups and micro businesses to enterprises.

Moonshot operates predominantly at the early stage end of the maturity spectrum and so it is from this perspective that this submission is crafted.

There is already a significant network of startup and early stage businesses, facilities and programs across Queensland, including, in a national first, the Office of the Chief Entrepreneur. This network is a valuable foundation, on which many new businesses have already been established and which many more will be founded and will then grow to become significant employers and meaningful participants in the space economy.

¹ ACIL ALLEN Australian Space Industry Capability, 2017,

The current Chief Entrepreneur Leanne Kemp is the third to hold the office, with Steve Baxter and Mark Sowerby preceding her and the office provides a deeply experienced, entrepreneurial leadership capability for the state.

Advance Queensland and the Office of the Chief Entrepreneur is chartered to

- support the development of Queensland's startup ecosystem by working with incubators, accelerators and coworking spaces,
- connect with regional and remote Queensland to encourage and foster state-wide entrepreneurship,
- showcase Queensland startup and entrepreneurial talent to local, national and international audiences,
- stimulate and attract local, national and international investment and venture capital to Queensland and
- support local entrepreneurs, startups, and small businesses across the state by connecting them with the right opportunities, people, places, and spaces to help them grow, scale, and create jobs

The Startup Pipeline

Typically, people with passion and an idea for a new business, start to participate in the entrepreneurial community through informal chats and meetups, building an understanding of how to get started through conversations and events and coming to see themselves as "founders".

Many founders and their early teams make use of co-working spaces and participate in incubation and acceleration programs, learning how to grow and pitch their businesses for investment. Not every new business succeeds however reports such as Startup Muster² and the Startup Genome³ show an increasing number of viable businesses emerging from the startup pipeline in communities all around the world.

Successful startup communities have collaborative participation from a wide range of contributors and Brad Feld describes them neatly in "Startup Communities".⁴

Over the past few years, cities and towns across Queensland, have been building vibrant startup communities with involvement from entrepreneurs, co-working spaces, universities and schools, state, local and federal government, investors such as angel groups, mentors, program operators and professional service providers.

There is a solid and evolving foundation already in place, on which many new space-related businesses can be hatched and nurtured.

Unlike larger businesses with a reliance on significant infrastructure such as proximity to international transport, startups, early stage and scale up businesses can spring from the entrepreneurial minds of people in any location. Founders and their startups can play a particularly important role in communities hard hit by the decline in traditional sectors.

² Startup Muster, 2018 - <https://www.startupmuster.com/>

³ Startup Genome, 2018 - <https://startupgenome.com/report2018/>

⁴ Startup Communities: Building an Entrepreneurial Ecosystem in Your City, Feld B., Wiley, 2012

Moonshot

Moonshot views the space-related value chain as spanning from design and manufacture of technology and hardware, to the launch and operation of space infrastructure and the application of space-generated data in endless applications on earth.

Moonshot has been building a commercialisation pipeline for the space economy for nearly 3 years that helps space-related businesses go from idea to international scale up. Working collaboratively with other community members, Moonshot delivers some programs directly and facilitates the delivery of others in cities around the globe.

Many new space-related businesses have been supported through a range of programs targeted at escalating levels of maturity:

- Phase 0 Education and Awareness, materials including VR content
- Phase 1 Bootcamp – a structured business prototyping weekend
- Phase 2 Ideator – a structured 8 week program to help validate a problem
- Phase 3 Accelerator (Equity-Free) – an equity free, structured, 8 week program to help validate problem – solution fit
- Phase 4 Accelerator (Equity) – a structured 12 week program with significant funding as an equity investment, to help achieve product – market fit

Phase 1 and Phase 2 has been staged 3 times in multiple cities across Oceania and South East Asia to date and has traditionally been run in conjunction with the NASA Space Apps Challenge.

A parallel cohort of phases 2 and 3 has recently been hosted in the Victorian Innovation Hub and a state government grant was secured to cover a portion of the budget for these cohorts. Phases 2 and 3 have supported businesses including Spiral Blue, Picosat Systems, Exodus Space Systems, NEXT Aero, Opaque space and Aerospace Systems.

There has been one cohort of Phase 4, conducted so far as a partnership with Blackbird Ventures and the Startmate accelerator program. Moonshot sourced over 25 applicants from Australia and international, 4 of which were strong enough to be selected by investors and included in the final cohort of 10; Leo Aerospace, Jig Space, Streamlined Main Dynamics, and Swoop Aero.

More than 60 founders and 25 businesses have been supported to date, many of whom have employed new staff with Moonshot's help as they've scaled.

More advanced Phases are ready to go as soon as partners and qualified businesses emerge.

In Queensland, Moonshot has partnered with organisations, such as Fishburners, and our broader network includes businesses such as Gilmore Space Technologies, Hypersonix, Black Sky Aerospace, Spaceport AI and Ozius Spatial - all space-related businesses that are part of Australia's thriving space economy.

Internationally, Moonshot works with space-related businesses such as QinetiQ, Lockheed Martin and Airbus, as well as a co-working space partner network of 'Launch Pads' spanning 4 continents.

Moonshot provides a space-focused pipeline that facilitates and connects business builders from "idea" to "multi-national" to leverage next-generation, space-based infrastructure to solve real world problems on earth and beyond.