



SOUTH AUSTRALIA: STATE IN FOCUS

FOREWORD

There are exciting changes taking place in South Australia—changes that are transforming our economic landscape and providing new opportunities for businesses to grow.

We are making South Australia the leading state for business startups. To support this goal, we are assisting entrepreneurs to seize opportunities and turn ideas into businesses. To kickstart their journey, we are investing over \$400m to build an innovation and cultural precinct at Lot Fourteen – a creative and innovation neighbourhood spread over seven hectares in the Adelaide CBD.

A new innovation, incubator, startup and growth hub will provide aspiring entrepreneurs with an opportunity to collaborate with startup founders, researchers, industry, business mentors, investors and other support services to bring their ideas to market.

Lot Fourteen is already home to a cluster of companies from fast growing industries and will continue to expand in areas such as defence and space technologies, cyber security, machine learning, robotics and creative industries, offering a supportive environment for start-ups and entrepreneurs to thrive.

Leading the State's new vision is South Australia's first Chief Entrepreneur, co-founder and chairman of Nova Group, Jim Whalley. Jim is supported by the Entrepreneurship Advisory Board consisting of several prominent business leaders who are already working hard to support the next generation of innovators and entrepreneurs.

We are providing entrepreneurs with every opportunity to excel right here in South Australia— a state already recognised for innovation, universities and world-class research institutes, food and wine and cultural festivals.

Come and join this new and vibrant chapter we are creating in South Australia.

Hon Steven Marshall
Premier of South Australia

Minister for Industry and Skills

Hon David Pisoni

STATEMENT FROM SOUTH AUSTRALIA'S CHIEF ENTREPRENEUR

South Australia is one of the world's best places to live. We also want to make it one of the world's best places to start and grow a business.

To do this, we need more people thinking and aspiring to be 'entrepreneurs' because in many ways, entrepreneurs are heroes in the way they go about solving problems, devising creative solutions and creating jobs and wealth for society.

Governments at all levels are working to create the right environment for businesses to thrive, and South Australia is a great example with the investment in business infrastructure and new support frameworks that welcomes all individuals wanting to turn their ideas into businesses.

We are now calling on the community to get behind these future heroes. Mistakes will be made along the way and some will fail, like many of today's successful entrepreneurs once did.

We want young people, parents, mature-aged workers and established business people to help and encourage each other on this journey as the lesson learnt along the way is what creates our future.

My fellow Entrepreneurship Advisory Board members and I seek to be a voice for the entrepreneurial community and a conduit to policy makers so that collectively, we work as a team to create an even better South Australia for all.

Jim Whalley
South Australia's Chief Entrepreneur

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LOT FOURTEEN

South Australia has embarked on an ambitious project to build one of the largest innovation districts in the Southern Hemisphere.

Lot Fourteen is being developed on behalf of the State Government of South Australia by Renewal SA as a creation and innovation neighbourhood on the site of the former Royal Adelaide Hospital.

The seven-hectare neighbourhood is bringing together in one place members of the entrepreneurial ecosystem including startups, mentors, corporations, researchers and investors with creatives to share spaces, experiences and knowledge.

Lot Fourteen's core purpose is nurturing talent and driving businesses and jobs in some of the world's fastest growing industries like artificial intelligence, cyber security, smart sensor networks, robotics, big data, block chain, defence and space technologies, plus media and creative industries.

The neighbourhood covers seven hectares on the corner of North Terrace and Frome Road, offering approximately 23,500m² of workspaces across a range of State Heritage and other repurposed buildings. This includes 650 workspaces dedicated to startups within the Innovation, Incubator, Startup & Growth Hub.





Myriota is named after the combination of words myriad and iota, meaning many small things. Its founder, Dr Alex Grant, describes the vision as massive scale connectivity to millions of small devices.

The value proposition of Myriota is to improve industry via low-cost data connectivity, which encompasses a variety of separate innovations. First are the sensors, which are so energy efficient that they are able to operate on a pair of commercial AA batteries for up to five years with no need for regular maintenance or replacement. Then there's the satellite network, providing connectivity and cloud-based analysis in particularly remote areas, without the need for mobile towers or local internet connectivity.

And that's just the hardware - the software embedded in the sensors is also unique. The sensors can be customised based on client needs from the current level of a water tank to the acoustic signal of a generator's wind turbine. They have basic logic functions and come with a software development kit (SDK) for client-based development, or Myriota can help develop the functionality in-house.

And since handling millions of inbound packets of information is not a trivial concern, the protocols for communicating with the satellite network are also patented, taking advantage of Dr Grant's background as an internationally-renowned wireless communications researcher and Chief Technology Officer Dr David Haley's background as Director of the Global Sensor Network.

By bringing these technologies together, Myriota can offer a low-maintenance, low-cost sensor network that can be deployed in the most remote of areas with nearly infinite uses.

Myriota was spun out of the University of South Australia (UniSA) in 2015. Despite having excellent global rankings in research, Australia has historically performed poorly when attempting to commercialise that technology. When asked how to commercialise research in Australia, Dr Alex Grant laughs and warns that he is about to give the same answer he always does - "On purpose."

It might as well be a motto for Grant. Before founding Myriota, he and the team at UniSA purposefully sought out real world problems with an eye towards creating a commercially viable product. By collaborating with industry during his academic research, they treated their research funding like seed capital for the development and testing of a product, with the full cooperation of the university.

Now, after raising a Series A funding round of US\$15m from investors including Main Sequence Ventures, the South Australian Venture Capital Fund, Singtel Innov8, Right Click Capital and Boeing's Horizon X Ventures, Myriota continues to expand rapidly. As one of the first tenants at the Lot Fourteen development, including a new US\$2m IoT Innovation Lab to build on its core technology, Myriota is quickly becoming one of Australia's most exciting startups - and they're doing it on purpose.

HAPPYCO

Founded in Adelaide in December 2011 by Jindou Lee and Andrew McKenzie Ross, HappyCo offers a SaaS platform for real estate management. As a successful real estate investor, Lee came up with the idea based on his experience with the difficulties of paper processes in the industry. Today, 1.5m properties are managed using HappyCo's products.

In 2012 HappyCo was accepted into the 500 Startups accelerator program and moved to Silicon Valley, although they kept an office in Adelaide. In 2016, HappyCo raised \$9.9m in funding, mostly from American and European investors. This year they raised \$14m in a round led by Australian investors, coinciding with the company's goal of bringing their R&D operations back to Adelaide.



Started in December 2013 by Roland Peddie and Jon Soong, Makers Empire provides 3D printing software for elementary, primary and middle schools. Peddie originally conceived the software while working as a game designer and noticing the impressive designs children could create in games that provided the opportunity. Teaming up with another friend from the University of Adelaide, Lap Leung, they pitched to investor Anthony Chhoy, who was so impressed with their product that he joined the company as a fourth co-founder in 2014.

In 2017, they announced a partnership with US 3D printer manufacturer Polar 3D that brought Makers Empire \$1m in funding. Today, Makers Empire helps more than 10,000 educators teach design thinking, science, technology, engineering and maths using 3D design and printing to over 400,000 students around the world.



Launched in October 2014, Sine is focused on visitor and contractor management systems. Founded by Antony Ceravolo, the company aims to expand the use of mobile check-in technology to venues beyond air travel, where it was first widely implemented.

In 2015, the company raised a seed round of \$1.1m from private investors. In 2017, Sine software was being used across 600 cities worldwide, including large corporate clients like Coca-Cola, General Electric and Vodafone. By 2018, the app had been rolled out to thousands of global companies and was used in schools, sports stadiums, offices, industrial, medical, retail and commercial facilities.

Headquartered in Adelaide, Sine has expanded operations internationally, with offices in London, New York, the Philippines and Dublin.



Tobi Peace founded SWEAT as a technology platform for online content in the health and wellness industry. His fiancée, Kayla Itsines, is the co-creator of the BBG workout programs and e-book and now works as a SWEAT trainer.

Pearce has likened the app to Netflix, developing a platform to share and creates content that is focused on health and fitness. In 2016, SWEAT was the most downloaded fitness app on both iOS and Google Play.



Adelaide startup Teamgage was founded by Ben and Noelle Smit in 2013. It provides organisations with software that solves people, culture and process issues. Teamgage helps drive continuous improvement from the bottom-up in workplaces and provide senior leadership with visibility across the organisation.

The founders had previously worked on UniOne, a successful SaaS product used by universities to manage student activities. Launched commercially in 2016, the company has enjoyed placements at the University of South Australia's Innovation and Collaboration Centre, Techstars Adelaide and now Microsoft's ScaleUp program in Sydney.



Adelaide inventors Will Tamblyn and Gavin Smith created the Voxiebox – a 3D volumetric display. The technology has been described as magical and compared to the projector used by the robot R2D2 in Star Wars.

Voxon brought in 3D software legend Ken Silverman (from the Duke Nukem game series) to be a co-founder and establish a US presence.

Now based at the Tonsley Innovation District in Adelaide, Voxon received \$50,000 in grants from the University of South Australia and the South Australian government, have raised over \$1m in funding and are now gearing up for Series A investment. In August 2018, Voxon won the consumer markets category at the national iAwards. Its product has been sold in 15 countries, attracting notice from leading organisations in technology, gaming, medicine, and education.

STARTUP PROFILE



Founded in Adelaide in 2015 by engineers Flavia Tata Nardini and Matthew Tetlow and entrepreneur Matt Pearson, Fleet Space Technologies is a space technologies startup focused on developing low-cost satellite-based systems for the Internet of Things (IoT). It has released the Fleet Portal, an on-the-ground hub for IoT sensor networks that currently communicates with existing satellite networks, and plans to launch its own nanosatellite network this year. Fleet's accompanying proprietary software analyses and compresses recorded data, meaning they never have to waste bandwidth transmitting raw data to orbit.

Simon Evans and Mark Ludlow in the Financial Review wrote that Fleet was an 'Australian moonshot'. Excusing the pun - they aren't far off. The company is helping to set the trend of using low-cost spaceflight to provide infrastructure for terrestrial technology. Fleet aims to use the falling cost of space flight to provide connectivity for IoT devices, 75 billion of which are expected to be online by 2025. Currently, their software solutions for these devices provide customers in the agriculture, logistics, maritime, and mining industries with cost savings by filtering and compressing raw data from various sensors used in these fields, making its broadcast to and from space more efficient.

Dr Tata Nardini, born in Italy, had previously worked at the European Space Agency and the Dutch research institute TNO. The international experience and exposure has been influential in establishing a global-from-day-one mission for Fleet. Whenever its founders describe vision and mission for Fleet, they are always stated in global terms - 'connecting the world' or 'democratising space'.

In 2017, Fleet's Series A saw \$5m in funding raised by a group of investors led by Blackbird Ventures and joined by Silicon Valley's Horizon Partners and Mike Cannon-Brookes, among others. Blackbird co-founder Niki Scevak joined Fleet's board following the round. The company has since expanded overseas, opening offices in Los Angeles and Delft, the Netherlands, chasing business opportunities in Europe and the city's already rich space entrepreneurship sector.

In July of this year, the company received matched funding from the South Australian government to open its mission control center at Red Banks Reservoir in Pinkerton Plains. The ground station operates 24 hours a day, allowing Fleet to track and receive data from nanosatellites at a fraction of the cost of larger operators.

Fleet are now looking to launch their own nanosatellites. Each weighing only 10kg, the first is under contract to launch with Spaceflight aboard an Indian Polar Satellite Launch Vehicle (PSLV) by Antrix/ISRO. The second will be also launched via Spaceflight on an existing contract with SpaceX.

Update: Fleet's pace hasn't slowed - since this profile was written, it has announced a deal with New Zealand's Rocket Lab to add two new satellites, the Proxima I and II, to a launch in November 2018.

INNOVATION DEVELOPMENTS

INNOVATION, INCUBATOR, STARTUP & GROWTH HUB

The Hub at Lot Fourteen will feature up to 650 workspaces across several heritage buildings to provide the opportunity for entrepreneurs and startups to co-locate with international organisations, service providers, investors and researchers within an environment that sparks collaboration and attracts talent.

OFFICE OF THE SOUTH AUSTRALIAN CHIEF ENTREPRENEUR

Co-founder and chairman of Nova Group Jim Whalley was appointed as South Australia's first Chief Entrepreneur in 2018. He will work alongside members of the newly appointed Entrepreneurship Advisory Board comprising current and returning South Australian entrepreneurs.

RESEARCH, COMMERCIALISATION AND STARTUP FUND (SA GOVERNMENT)

The \$27.9m Research, Commercialisation and Startup Fund will support South Australian businesses to collaborate with researchers and universities to solve industrial problems, commercialise new products and services, attract research infrastructure investment into the state, and encourage the establishment and growth of startups.

TONSLEY INNOVATION DISTRICT

As Australia's first innovation district, Tonsley retains the heritage of car production by establishing itself as the home of advanced manufacturing in South Australia. The site is home to 1,400 employees, 150 co-working members and 32 businesses, including Siemens Australia, Micro-X and ZEISS.

SOUTHSTART

SouthStart will return for its fourth iteration in 2018 as South Australia's premiere future-forward innovation event. Over two days, 600 creative and curious technologists, founders, investors and business leaders will exchange ideas and connect on the frontier of technology, culture and innovation in South Australia.

TECHNOLOGY PARK (MAWSON LAKES)

Technology Park is home to more than 100 organisations including global companies Lockheed Martin, BAE Systems and SAAB along with startup and scale-up companies.

TECHSTARS

A leading US accelerator, Techstars chose Adelaide as the site of its first expansion into the Asia Pacific region.

ADELAIDE BIOMED CITY

BioMed City precinct is the largest health and biomedical cluster in the southern hemisphere. The site comprises the new Royal Adelaide Hospital, the South Australian Health and Medical Research Institute (SAHMRI), the University of Adelaide's new Adelaide Health and Medical Sciences Building and the University of South Australia's Centre for Cancer Biology. This precinct brings together research, education, clinical care and business to drive new ideas and innovation.

ENTREPRENEURIAL SCHOOLS

South Australia is establishing four specialist entrepreneurial schools that will teach students entrepreneurial skills and attitudes, with a strong emphasis on creativity, problem solving and collaboration.

FAST AND AFFORDABLE GIGABIT INTERNET

GigCity Adelaide is providing fast and affordable high-speed internet to startups and businesses at innovation precincts. An initiative of the South Australian Government, the network has connected 12 precincts, with a further 14 sites to be connected in 2019.

Complementing the GigCity Adelaide network is Ten Gigabit Adelaide – a high-speed, high-performance fibre optic data network that is being rolled out by TPG in partnership with the City of Adelaide across 1,000 selected buildings in the CBD and parts of North Adelaide.

SOUTH AUSTRALIAN SPACE INDUSTRY CENTRE (SASIC)

SASIC was created in 2017 to drive space industry innovation, research and entrepreneurial development in South Australia, which is already home to around 70 space-related organisations.

ENTREPRENEUR VISA

South Australia will be the first Australian state to trial the new Entrepreneur Visa, which aims to attract promising seed-stage entrepreneurs to develop their concepts. Visa applicants will not need capital backing but will ideally partner with a local business incubator for nomination. Entrepreneurs who are successful in establishing their business venture in Australia will be eligible to apply for permanent residence. A national rollout will commence in 2019.

SOUTH AUSTRALIA VENTURE CAPITAL FUND

A \$50m co-investment fund established by the South Australian Government and managed by Blue Sky Venture Capital. The fund provides matched funding to early stage innovation companies.



STARTUPAUS ANALYSIS AND COMMENTARY

Adelaide's Lot Fourteen project is an innovation district on an ambitious, global scale. Renewal SA cites Station F in Paris as an inspiration for Lot Fourteen, and there's detail in the reasoning behind almost every decision. The aspiration to show willingness is palpable. Everything has 'popped up' in the now empty spaces before they are finished - bars, parties, events and stores. Google hosted its Digital Garage event in the space after Renewal SA offered to (and did) remove a large two-storey escalator ahead of schedule to maximise space for the event.

In an arena where density is vital to success, it can be tempting to doubt whether there's enough good will and energy to succeed despite South Australia's relatively small population. But the evidence suggests building a thriving startup sector can be done from a very small population base. Boulder, Colorado, is a globally renowned startup district, and yet its population of just over 100,000 is less than 10% of that of Adelaide.

Of course, Brad Feld (the founder of Techstars) is one of Boulder's big advantages, and he's hard to replicate. He has been a leader and consistent driver of an organic and unified approach to developing the ecosystem. Adelaide offers excellent lifestyle and affordability, but while these elements are important they are neither necessary nor sufficient to attract a thriving innovation scene. Instead South Australia needs to build on these strengths while showing that it is able to nurture businesses that are scaling rapidly, that it can compete globally for talent and customers, and to convince globally relevant businesses they need to have a presence in South Australia in order to tap into what's happening on the ground. The launch of the South Australia Entrepreneur visa trial will be the first step towards attracting foreign entrepreneurs.

In the space and defence industries, the signs are very promising. Myriota has a raft of strategic global partners who have provided direct investment - from Boeing to Singtel Innov8 - supported by co-investment from the South Australian Venture Capital Fund. Wright Incorporate used its real-time drone registration technology to win a local hackathon at UniSA's Innovation and Collaboration Centre, then went on to win the grand prize in the global ActInSpace competition in Toulouse, putting the team firmly in the eye of the European Space Agency, a partner of the event.

There's real talent here alongside deep technology that can impact large markets. Lot Fourteen provides a big opportunity: a huge integrated district with the key players from startup to scale-up and established businesses, startup support organisations, a tech-focused university presence and talent pipeline. With Lot Fourteen's focus on clustering expertise in defence, space, cyber security, machine learning, virtual reality, robotics and creative industries - that's a recipe for global interest. The recent announcement of Lockheed Martin being the first Foundation Partner of the University of Adelaide's Institute of Machine Learning at Lot Fourteen proves that the world is paying attention.

International attention has the potential to add value across the board. Talent coming into fintech in Sydney and London has been much more 'tech' than 'fin'. A thriving startup vertical naturally spills over into the rest of the ecosystem. Even now, Lot Fourteen is host to a \$2.7m IoT Innovation Lab because organisations like Fleet and Myriota, while ostensibly operating in the space sector, have IoT at the core of their products. Lot Fourteen will serve as a centrally located hotspot and model to grow the local ecosystem, connecting other innovation precincts such as the Tonsley Innovation District in Adelaide south, Technology Park in the north, as well as BioMed City in the CBD.

Other challenges will persist of course. It will be difficult to maintain momentum. Lot Fourteen is expected to have 500 people move in by the end of the year, aiming for 5,000 in 5 years, yet it's still a 7-year project with an election halfway through. Defence and space are a natural focus for South Australia and likely the right focus areas to show a globally competitive edge, but the State will need to convert some of that attention and activity into the rest of its startup ecosystem to achieve a widespread impact on its economy. And attracting global talent and corporate decision-makers will naturally be harder in a smaller city.

Yet it's hard to escape the feeling that these challenges are the right ones to have for a State with genuine ambition. Innovation could reasonably be described as the ability to turn idea into opportunity. South Australia has now turned 23,500m² of idea into opportunity. It's time for the entrepreneurs and technology leaders of the State to grab that opportunity with both hands.