

South Australia

The defence and space state



Invest SA is a dedicated team of investment and business professionals within the Department for Trade and Investment that can connect you with opportunities, industry networks, and other government agencies in the defence and space sectors in South Australia.

Invest SA, Defence and Space team offers specialist industry and investment advice in partnership with Defence SA and the South Australian Space Industry Centre to support your business growth.

invest.sa.gov.au/sectors/defence | invest.sa.gov.au/sectors/space-industries

Defence SA is South Australia's lead government agency for all defence matters, supporting the state's defence industry to create jobs and generate investment, bolstering South Australia's economic transformation.

defencesa.com

The **South Australian Space Industry Centre (SASIC)** provides a whole-of-state-government focal point, spearheading the advancement of space industry innovation, research and entrepreneurial development.

sasic.sa.gov.au

South Australia's collaborative ecosystem



Australian Government
Defence



DEFENCE AND SPACE
LANDING PAD

LOT-
FOUR-
TEEN



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Cover image: Artist impression of the SSN-AUKUS nuclear powered submarine
Image courtesy of BAE Systems

Our strengths = your opportunity



SSN-AUKUS Nuclear-Powered Submarine Program

Osborne Naval Shipyard will be home to Australia's next-generation submarine build, delivering the nation's single greatest defence capability upgrade



AUD\$6 billion Collins Class Submarine LOTE Program



Technology Park

A vibrant world-class business community of innovative, hi-tech organisations including Kongsberg, L3Harris, Lockheed Martin Australia, Northrop Grumman, Raytheon and Saab Australia



Lot Fourteen Innovation District

Defence and Space Landing Pad, SmartSat Cooperative Research Centre, and the Andy Thomas Space Foundation



The Office of Defence Industry Support (ODIS)

Provides a seamless experience for small and medium enterprises to engage with defence



AUD\$45 billion BAE Hunter Class Frigate Program



Australian Space Agency

Delivering the best outcomes across national civil space priority areas for the Australian space sector at Lot Fourteen Innovation District



Edinburgh Defence Precinct

Key national defence research, manufacturing, and sustainment hub, including the RAAF, DST Group and BAE Systems Australia



Defence Innovation Partnership

A collaborative initiative between Defence SA, DST Group and South Australia's three public universities creating opportunities for the research and development community to meet the needs of defence



Tonsley Innovation District

A hub for advanced manufacturing business and services specialising in high growth sectors

"South Australia's strong defence industry and skilled defence-ready workforce enables Boeing to not only deliver our long-term commitment to supporting the P-8A aircraft, but to further our advanced research, development and innovation capability to support large, complex defence projects."

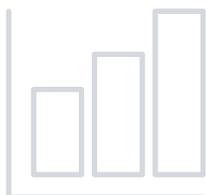
Kevin Beaulne, Regional Director South Australia, Boeing Defence Australia

Introducing South Australia

Ecosystem	<p>Innovative defence and space ecosystem including Defence SA and South Australian Space Industry Centre (SASIC).</p> <p>300+ defence companies and over 100 space organisations in both the upstream and downstream segments exist within a thriving network of primes, small to medium enterprises and start-up companies.</p>
Research and education	<p>Three public universities and world-renowned national research centres such as Defence Science and Technology Group (DST Group) and the SmartSat Cooperative Research Centre.</p> <p>World-leading catalyst and incubator programs for start-up companies.</p>
Infrastructure	<p>Major upgrades and maintenance scheduled for key infrastructure across the state.</p> <p>Competitive construction costs for new infrastructure.</p> <p>Affordable land linked to transport corridors and key infrastructure for new projects and test and evaluation areas.</p>
Capability	<p>Industry contributing products and services into global and local supply chains for the build and sustainment of defence and space projects.</p> <p>Focus on Industry 4.0 technology development including Lot Fourteen Innovation District, Tonsley Innovation District, and Technology Park.</p> <p>Investment in highly-skilled workforce to deliver major defence projects.</p> <p>A strong geographical position to support polar and sun-synchronous launch services.</p>



What SA offers investors



Invest SA helps facilitate:

- Identifying a suitable location
- Connections across government for approvals
- Attracting and retaining highly-skilled staff
- Introductions to industry partners and networking opportunities
- Planning and cross-government delivery of investment projects
- Connections with our global teams and identifying export opportunities

South Australia – the defence state

South Australia is at the forefront of the nation's defence.

Renowned for innovation, world-class research and development, and a highly-skilled workforce, South Australia holds a significant proportion of Australia's total in-country defence materiel spend.

Our global supply chain, access to prime contractors, strategic intelligence, test and evaluation facilities, and reconnaissance capabilities, combined with world-leading capabilities in artificial intelligence (AI), data analytics and cyber security makes South Australia the defence state in Australia.

South Australia's defence programs benefit from a highly connected and coordinated defence and space ecosystem located in high technology precincts and industry clusters.

Our state is home to numerous defence programs including:

- Arafura Class Offshore Patrol Vessels
- Hunter Class Frigates
- Collins Class Submarines
- Jindalee Operational Radar Network
- P-8A Poseidon Maritime Patrol Aircraft
- Triton Unmanned Aircraft System
- Hobart Class Air Warfare Destroyers.

AUKUS partnership

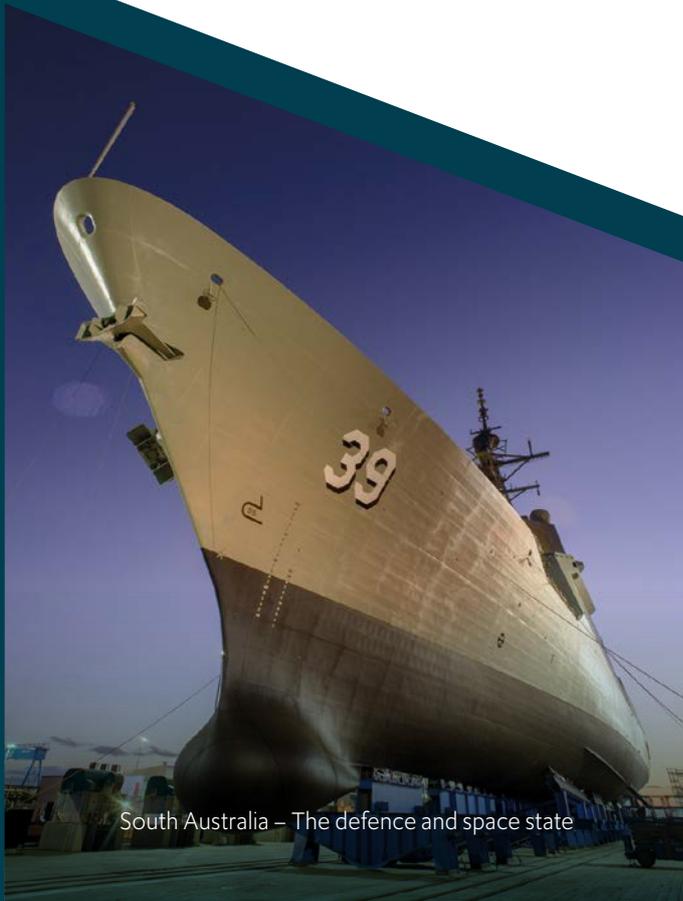
Australia and the UK will work to deliver a new conventionally-armed, nuclear-powered submarine based on a UK design and incorporate cutting edge technology from the three nations, to be called SSN-AUKUS. The UK will deliver its own SSN-AUKUS in the late 2030s, with the first SSN-AUKUS built in Australia to be delivered in the early 2040s.

Work will begin in 2023 on the development of new submarine construction infrastructure at the Osborne Naval Shipyard, including site identification and design, land transfer discussions, civil works and prototype facilities.

Over the next four years, South Australia is set to see AUD\$2 billion in expected investment for this undertaking.

At its peak, up to 4,000 workers will be employed to design and build the infrastructure for the construction yard. Meanwhile a further 4,000-5,500 direct jobs will be created to build the nuclear-powered submarines in South Australia when the program reaches its peak in 20 to 30 years.

In support of this endeavour, an Office for AUKUS has been established by the Government of South Australia to co-ordinate the state's preparations and provide a key point of contact for Commonwealth agencies and high level inter-governmental relations.



Hobart Class Air Warfare Destroyer
Image courtesy of Defence SA

South Australia – the space state

Home to cutting-edge research and development in satellite and space technologies.

With over 100 space organisations in Adelaide, South Australia has a dynamic domestic space ecosystem that includes notable private investors, companies, start-ups, and research institutions that are developing space technologies and attracting global attention and investment.

Putting South Australia at the centre of the national space industry is the Australian Space Agency which aims to increase the space sector to AUD\$12 billion and create up to 20,000 additional jobs by 2030.

The AUD\$245 million SmartSat Cooperative Research Centre, also headquartered in Adelaide, is Australia's leading space research project. It brings together Australian Government, state government and industry partners from around Australia and the world with a focus on advanced satellite systems, communication technologies and next generation earth observation data services.

Plants for Space (P4S) is an international research consortium building novel solutions for long term space habitation and on Earth sustainability. A new research centre, led by the University of Adelaide, will focus international expertise on finding ways to provide the next generation of space explorers with nutritious foods, and the on-demand supply of materials and medicine.

The South Australian space sector has the capability and supply chain to deliver a competitive advantage in space, supported by a vibrant, world-leading research and education sector.

The ecosystem consists of upstream and downstream organisations hosting a mix of primes, international organisations and start-ups with end-to-end capabilities including:

- satellite sensor and component manufacturing
- launch vehicle manufacturing and launch services
- mission services including the Australian Mission Control Centre
- software integration, data analytics, and AI.

South Australia has a long and established heritage in ground operations relative to space with several organisations operating from Adelaide's Technology Park, and Nova Systems operating a common-user Space Precinct on a 21-hectare site near Peterborough to track Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) small satellite missions.

The South Australian Space Industry Centre (SASIC) initiated the Space Incubator Program, Venture Catalyst Space which is delivered through the University of South Australia's Innovation and Collaboration Centre. The program supports the founders of new start-ups, and to nurture and grow ideas within the space sector.

Space manufacturing capability

The Government of South Australia is investing AUD\$20 million towards local space manufacturing capability, with plans underway to accelerate the development of space innovation into real world commercial technologies. Industry will have access to world-class equipment capable of small satellite and component manufacturing, assembly, integration, and test activities.

"The space sector (and defence) in South Australia is thriving and is well-supported by the Government of South Australia and a range of other organisations."

Mr Lloyd Lopez, CEO at Hex20

Defence and space test and evaluation capability

Woomera Range Complex

Largest land-based test range in the world.

Size: 122,000 square kilometres

Location: 500 kilometres north-west of Adelaide

The Woomera Range Complex's (WRC) remoteness and quiet electromagnetic environment is ideal for complex air, ground and space test activities.

The WRC comprises the Woomera Test Range, RAAF Base Woomera and the Nurrungar Test Range and is used extensively by Australian and allied forces in joint exercises and training.

Cultana Training Area

Largest training area capable of supporting combined arms exercises.

Size: 2,100 square kilometres

Location: 370 kilometres north-west of Adelaide

Cultana Training Area has the ideal terrain and climate for year-round armoured, mechanised and cavalry forces training.

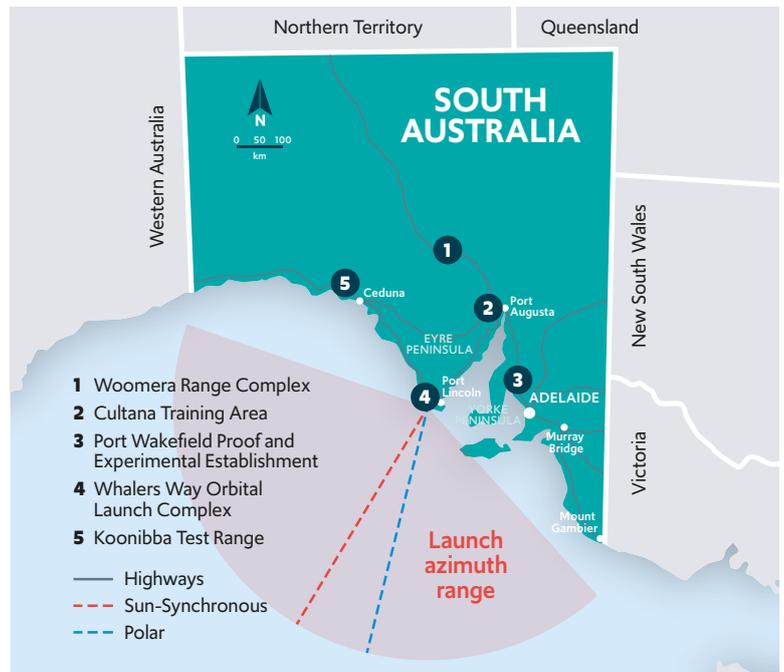
Port Wakefield Proof and Experimental Establishment

Hosts weapons trials, munitions proofing and environmental testing for the Royal Australian Navy, Australian Army and Royal Australian Air Force.

Size: 56 square kilometres

Location: 83 kilometres north of Adelaide

Port Wakefield Proof and Experimental Establishment is the only range in Australia where projectiles can be fired into a coastal area and retrieved relatively undamaged for assessment.



Whalers Way Orbital Launch Complex

A proposed commercial, multi-user facility with industrial infrastructure for space rocket launches (pending approvals).

Size: 16 square kilometres, including ocean frontage

Proposed location: South coast of Eyre Peninsula, within proximity to Port Lincoln

If approved, the site will be the only commercial, multi-user site that offers proximity to established industry infrastructure that can support rocket launches, good year-round weather and unhindered southward launch trajectories across unpopulated areas with low density air and nautical traffic lanes.

Koonibba Test Range

Australia's largest civilian rocket testing facility specialising in suborbital launches.

Size: Over 10,000 square kilometres

Location: West coast of Eyre Peninsula, within proximity to Ceduna

Koonibba Test Range extends out 145 kilometres over uninhabited areas. Rockets and payload can be recovered for further testing and systems validation before launching into orbit.

All your partners here

The world's largest technology companies have established AI-focused innovation hubs in Adelaide. These organisations are aligning their strategy for the next decade on the ability to deliver AI-focused projects and have selected Adelaide as the best location for AI and big data capabilities.

Global technology companies in Adelaide for innovation

Accenture announced a 2000-person practice in Adelaide in 2020 driving innovation in AI, data analytics and cyber security for the Asia Pacific region.

Amazon Web Services established their Australian applied sciences team in Adelaide in 2021 to work with the Australian Institute for Machine Learning to develop new AI applications.

Boeing Defence Australia's South Australian operation was established in 2015 to support the P-8A Poseidon. It has since grown to over 300 people – supporting the P-8A at the RAAF Base Edinburgh as well as an advanced research, development and innovation Capability Hub in the Adelaide CBD.

Cognizant expanded operations into South Australia in 2022 with the opening of a global delivery centre in South Australia, creating 1,600 digital roles.

Defence Science and Technology Group has been functioning since the 1950s developing military capabilities and critical technologies, such as artificial intelligence and quantum technologies for the land, maritime, air, space, and information and cyber warfare domains.

Deloitte established a 500-person Centre for Innovation and Technology in Adelaide in 2021.

Google Cloud established an innovation team in Adelaide in 2021 to focus on AI cloud applications.

Lockheed Martin Australia, already established in South Australia, opened an additional office in Adelaide in 2022 to accommodate over 90 staff to build on a local network encompassing approximately 1,200 staff nationwide, of which 520 are based in South Australia.

Microsoft established their Azure Space team in Adelaide in 2021.

MIT Adelaide Living Lab is the world's leading data analytics capability and are partnering with South Australia to build our hi-tech capabilities.

MTX Group announced their first technology innovation hub in the APAC region in 2021 for 500 staff, based in Adelaide.

Nokia established their Australian 5G Industrial Incubator Lab in Adelaide in 2022.

PwC established 300 staff with an innovation focus in Adelaide in 2021.

Rigetti, a world leading quantum computing company who pioneered hybrid quantum-classical computing systems, merged with Adelaide-headquartered QxBranch in 2019.

Defence and space ecosystem

DEFENCE

South Australia is home to seven of the world's top ten defence companies.



SPACE INNOVATION

World-class universities



Government



Innovation and research precincts



Initiatives and projects



UPSTREAM SPACE

Launch capabilities



Satellites and spacecraft



Integrated systems



ADVANCED MANUFACTURING AND SENSING



DOWNSTREAM SPACE

Earth station and comms



Earth observations



Engineering and software



Big data, AI, cyber and quantum



World-leading research and innovation capabilities

Defence Science and Technology Group

Defence Science and Technology Group (DST Group) is the lead government agency responsible for applying science and technology to safeguard Australia and its national interests. Headed by the Chief Defence Scientist, DST Group has an annual budget of approximately AUD\$629 million. DST Group employs 2,200 staff - predominately scientists, engineers, IT specialists and technicians with its largest presence in Adelaide.

Defence Innovation Partnership

The Defence Innovation Partnership is a collaborative venture between DST Group, Defence SA and South Australia's three public universities – the University of Adelaide, Flinders University and the University of South Australia. These stakeholders are a catalyst for defence research and development collaboration, improving the relationship between industry and universities, while building research capability in South Australia.

SmartSat Cooperative Research Centre

The SmartSat Cooperative Research Centre (CRC) is the largest space industry research collaboration in Australia. It is a national research powerhouse comprising of universities, global space companies, Australian small to medium enterprises and more than 35 start-ups. SmartSat CRC focuses on building commercial capability through coordination of members and the provision of support internally and/or via third parties.

Lot Fourteen Innovation District

Adelaide's innovation district, a space for leading organisations to accelerate innovation, entrepreneurship, research and education.

Home to global leaders in machine learning and data, including:

- Australian Institute for Machine Learning (AIML)
- Amazon Web Services
- Australian Cyber Collaboration Centre (A3C)
- Microsoft Azure Space
- MIT Adelaide Living Lab



South Australia's cyber ecosystem advantage

Australian Cyber Collaboration Centre

The Australian Cyber Collaboration Centre (A3C) is a central connection point for businesses looking to improve their cyber resilience.

A3C connects leaders, thinkers and doers of today and tomorrow with real opportunities to learn, activate businesses, adapt to change, and solve challenges within the digital domain.

Defence Science and Technology Group – Cyber, Intelligence and National Security division

The Cyber, Intelligence and National Security division leads the delivery of innovation, science and technology programs for defence intelligence, joint capabilities, and joint operations.

The division focuses on:

- national security
- artificial intelligence
- quantum
- intelligence
- cyber, and
- joint electronic warfare.



Australia's most cost competitive city

South Australia's competitive business environment supports commercial success and scaling of operations.

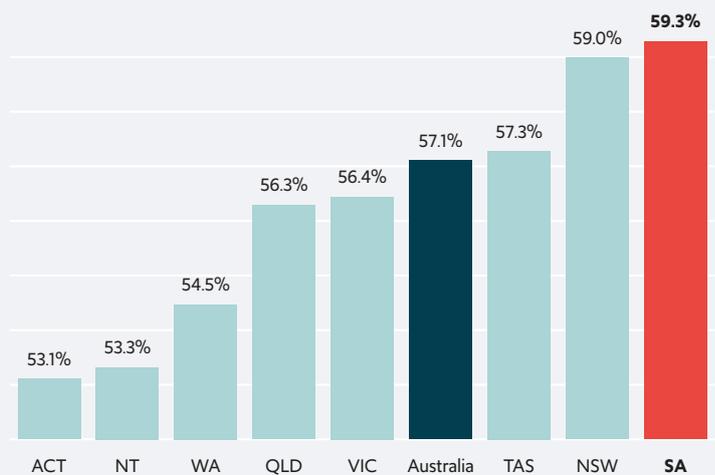
South Australia offers a suitably skilled and scalable workforce with competitive construction costs and high staff retention rates.

Industrial construction costs (AUD/sqm)



Source: Napier & Blakely Construction Costs Datacard, July 2022
 *Cost estimated for up to 10m high warehouse - medium standard, precast walls, sprinklers (over 3,000 sqm)

Staff retention rates, 3+ years in current main job (% of employed)



Source: Australian Bureau of Statistics - Job Mobility [Table 1.2 - Labour mobility, retrenchments and duration of employment by state and territory, February 2023]



Osborne Naval Shipyard

Innovation districts

Our sectors co-exist in hi-tech hubs and research centres, forging collaborative ecosystems that open doors and inspire new ways of thinking.

Defence Super District

34kms from CBD

Key national defence research, manufacturing and sustainment hub housing the RAAF Base Edinburgh, Defence Science and Technology Group and major defence companies.

Osborne Naval Precinct

26kms from CBD

Australia's largest naval shipbuilding hub incorporating a critical mass of world-class warship design and construction skills. Significant upgrades are slated to make it the most technologically advanced naval shipyard in the world.

Technology Park

17kms from CBD

Hub for systems development and integration, information communications technology, advanced manufacturing and electronics, and home to over 100 small to medium enterprises, multinationals and start-ups.

Lot Fourteen Innovation District

Adelaide CBD

Australia's first ideas and innovation neighbourhood and home to the Australian Space Agency, SmartSat CRC, Defence and Space Landing Pad, FIXE start-up hub, MIT Connection Sciences, Australian Institute for Machine Learning and the Australian Cyber Collaboration Centre.

Space Manufacturing Facility

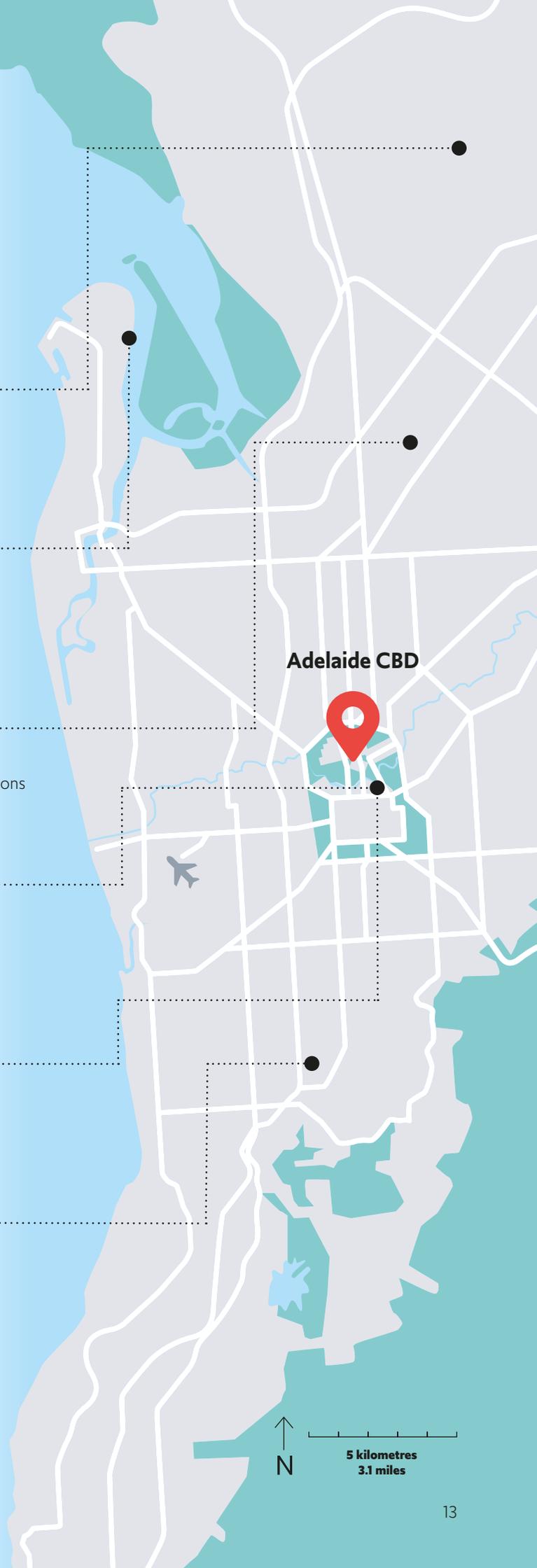
Adelaide CBD

Plans are underway to establish a space manufacturing facility at Lot Fourteen Innovation District to accelerate the development of local space innovation into real world commercial technologies.

Tonsley Innovation District

12kms from CBD

Home to high value manufacturing industries including health, medical devices and assistive technologies, clean tech and renewable energy, software and simulation, mining and energy services.



Advantage Adelaide – live, work & play

South Australia is a great place to live, work and play. The capital Adelaide, is consistently ranked as one of the most liveable cities in the world.

Adelaide is a progressive, cosmopolitan capital offering a premium lifestyle with world renowned festivals, major sporting events and iconic locations, such as the Barossa Valley, Kangaroo Island and Flinders Ranges.

South Australia's innovative, cost competitive and agile nature is luring more young talent, and our ability to rapidly scale and provide skilled workers in critical sectors has caught the attention of world-class companies.

We're forging global partnerships and leveraging our position as one of the most liveable and safest cities to grow our state and opportunities for everyone.

There's a strong commitment to collaboration among industries with specialist precincts, such as the Tonsley Innovation District and Lot Fourteen Innovation District, encouraging companies to thrive.

- **Shortest daily work commute of the major mainland cities – 21 per cent less than Sydney¹**
- **One of the lowest cost of living capital cities in Australia²**
- **Adelaide's median house price is \$680,000 – 44 per cent lower than Sydney³**

¹ Melbourne Institute: Applied Economic & Social Research, The Household, Income and Labour Dynamics in Australia Survey

² Mercer 2023 Cost of Living city ranking – Sydney 58, Melbourne 67, Brisbane 84, Perth 97, Adelaide 102

³ Australian Bureau of Statistics, March quarter 2023



Riverbank Precinct, Adelaide
Image courtesy of Olivia Dowling



The Gallery, Adelaide CBD
Image courtesy of South Australian Tourism Commission

The South Australian lifestyle

There is a year-round calendar of large events, entertainment, culture and excitement. Some of our best known cultural and arts events include the Adelaide Festival, WOMADelaide, Tasting Australia, Adelaide Fringe, Adelaide Cabaret Festival and OzAsia Festival. South Australia also hosts international and national sporting events including cycling's Tour Down Under and the Adelaide 500 car race.

Our Mediterranean climate – hot, dry summers and mild, wet winters – enables an exciting outdoor lifestyle. In Adelaide, you can dine outside, visit bustling laneways and rooftop bars. The thriving restaurant scene delivers a myriad of cuisines and memorable experiences. Visit over 680 wineries and more than 340 cellar doors - 200 within one hours drive of Adelaide.

Adelaide's coastline stretches more than thirty kilometres, delivering wide, golden beaches with clean seas for swimming, kayaking, surfing and more.

It's hard not to escape into nature with parks and walking trails everywhere.

Best of all, getting around Adelaide is easy. Nothing is really more than 30 minutes away by car. So, it's easy to have a family, sporting and social life every evening and an action packed, or relaxing, weekend!

Adelaide delivers a better, more affordable lifestyle and opportunities – whether in the city or suburbs, on the coast or in the hills.

- **Most affordable unit rents and third most affordable house rents of any Australian capital city⁴**
- **Affordable and accessible childcare**
- **Good public transport and no toll roads**
- **Great public and private schools**
- **Adelaide's three public universities are ranked in the top two per cent in the world**

4 Domain Rental Report, June 2023



WOMADelaide, Adelaide
Image courtesy of Grant Hancock

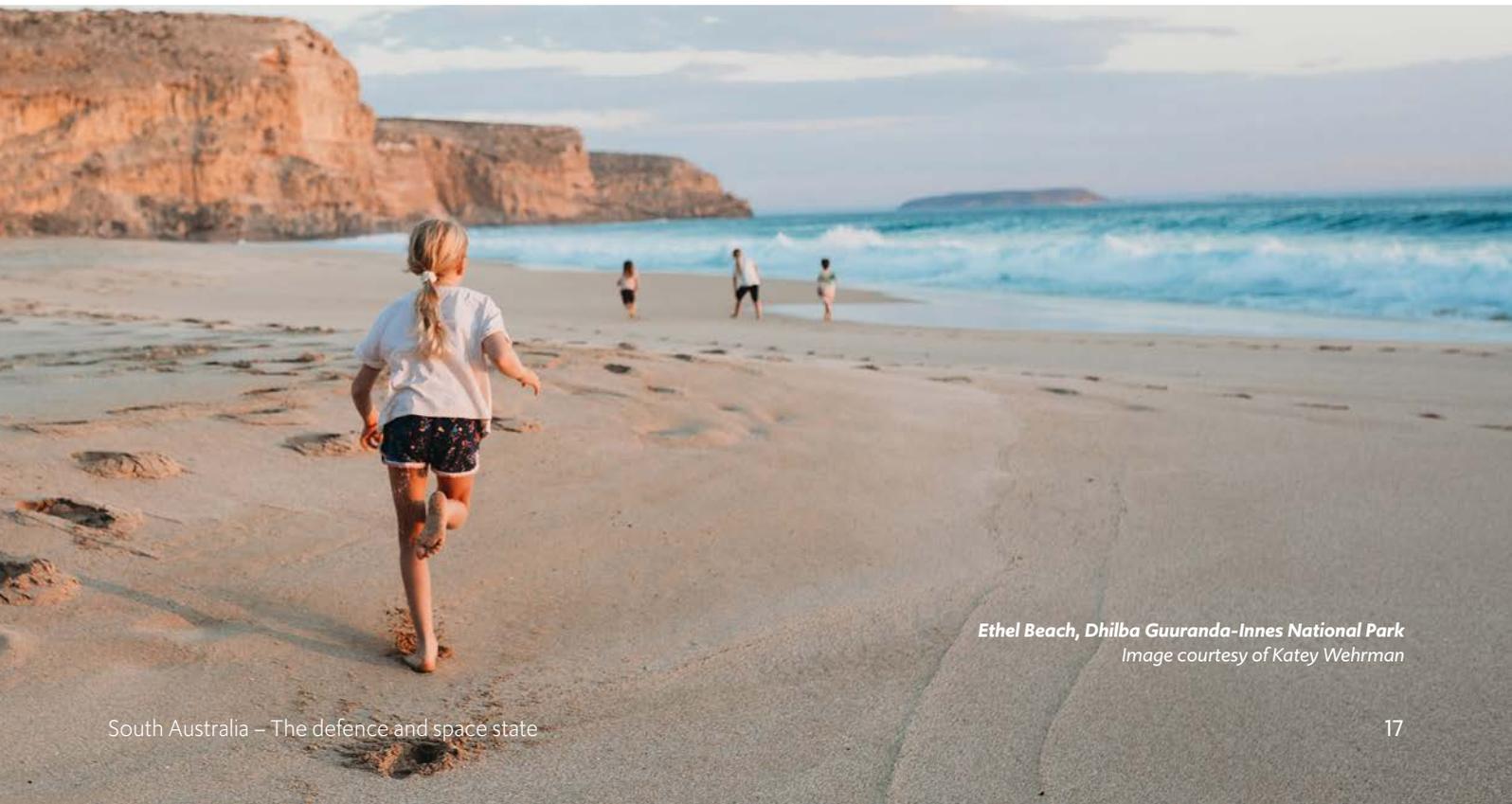
Barristers Block, Adelaide Hills
Image courtesy of South Australian Tourism Commission



The Arkaba Walk, Flinders Ranges
Image courtesy of South Australian Tourism Commission



d'Arenberg Cube, McLaren Vale
Image courtesy of South Australian Tourism Commission / d'Arenberg Cube



Ethel Beach, Dhilba Guuranda-Innes National Park
Image courtesy of Katey Wehrman

Let's talk

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