

Strengthening Tasmania's
position as an international
Antarctic gateway

Tasmanian Antarctic Gateway Strategy





Aerospatiale AS 350 BA Squirrel and Tabular berg, Mawson. Photograph by Unknown, Australian Antarctic Division, © Commonwealth of Australia



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Bernacchi tribute sculpture, Hobart waterfront, photo credit Tony Lomas



Minister's foreword



Antarctic, sub-Antarctic and Southern Ocean activities are significant contributors to the Tasmanian economy. The skills, talent and entrepreneurialism of Tasmania's people and the state's geographic location make it a natural gateway to East Antarctica.

Tasmania's capital Hobart is a proud international Antarctic gateway. Hobart is home to Australia's icebreaker *Aurora Australis* (and from 2020 its replacement *Nuyina*) and the main hub for many international Antarctic vessels.

The city has an international airport that services Antarctic flights. Tasmania offers unmatched expertise in Antarctic-related science.

Hobart is home to Australia's greatest assembly of Antarctic and Southern Ocean scientists in a number of education and science organisations, including the Australian Antarctic Division (AAD), Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Integrated Marine Observing System (IMOS), and the University of Tasmania.

This research community has a significant economic, social and cultural impact on Tasmania and is the backbone of our Antarctic sector.

Tasmania also provides specialised support for Antarctic operations. No other southern hemisphere location has an organisation to match the Tasmanian Polar Network (TPN) a unique government-supported alliance of local and national businesses and research bodies. From a single contact point, the TPN can provide expeditions with comprehensive support including supplies, equipment, logistics and other services.

The Tasmanian Government is committed to working with the Australian Government and private sector stakeholders to further develop Antarctic gateway activities and research opportunities that will help build our state's future prosperity. By releasing this strategy, the Tasmanian Government introduces a suite of policies and initiatives dedicated to supporting growth in the Tasmanian Antarctic sector.

The strategy will be underpinned by the resources of the Department of State Growth supporting businesses, seeking cross-sectoral opportunities, building capability and promoting the world-leading Antarctic gateway brand.

Our strong commitment to the sector is evidenced by the announcement to develop an iconic Antarctic and Science Precinct at Hobart's Macquarie Point.

The precinct and this renewed strategic focus on the Antarctic sector, provides an exciting new opportunity for the TPN and other Tasmanian businesses, through enhancing collaboration in science and logistics, tendering for work in Antarctic, sub-Antarctic station renewal and providing support for maritime and aviation links.

Tasmania is the flagship for Australia in delivering a globally recognised home of international Antarctic diplomacy, logistics and operational support and science services. The sector makes a significant contribution to Tasmania's economy, generating 0.7 per cent of Tasmania's GSP, with over 750 direct jobs and at least 430 indirectly.

The release of this new strategy highlights the State Government priorities to strengthen Tasmania's community of research scientists, drive growth in our support and logistics capability and attract more international resupply and research visits from nations involved in Antarctica. This strategy will strengthen Tasmania's position to become the world's Antarctic gateway of choice.

A handwritten signature in black ink, appearing to read 'Peter Gutwein', with a long horizontal line extending to the right.

Peter Gutwein

Minister for State Growth

Introduction

Tasmania has a proud heritage of supporting Antarctic and Southern Ocean endeavour with explorers and scientists using the port of Hobart as a base for expeditions since the 19th century.

Today, Tasmania is recognised around the world as an exciting and vibrant centre of international Antarctic science, logistics, operational support and diplomacy.

Many Tasmanians have historic and/or emotional links to Antarctica and place great importance on this connection.

Over the last four decades Hobart has operated as the Antarctic and Southern Ocean gateway for the Australian and French Antarctic programs, with research and supply vessels from other nations visiting regularly.

Its safe, deep water harbour provides dedicated services for Antarctic vessels and the Hobart Airport is a key air link to East Antarctica.

Tasmania's Antarctic and Southern Ocean scientific research and education organisations are central to maintaining our Antarctic sector.

They support the Australian Antarctic program, our engagement with other national Antarctic programs and our logistics and operational expertise.

With the release of this strategy, the Tasmanian Government is highlighting its commitment to grow the Antarctic and Southern Ocean sector by facilitating a focused, collaborative response to future opportunities. The sector is an integral part of the strong, quality Tasmanian brand.





Why a Tasmanian Antarctic strategy?

The Antarctic and Southern Ocean sector contributes more than \$180 million annually to Tasmania's Gross State Product and creates at least 1200 direct and indirect jobs. Wages in the sector are well above the average.

Tasmania's geographic location means it is a natural gateway to East Antarctica. Of the five recognised Antarctic gateways around the world, Hobart is unique in its depth, breadth and combination of infrastructure, world class Antarctic scientific expertise and logistical support services.

As Australia's Antarctic gateway, the Tasmanian Government supports the Australian Government's commitment to the Antarctic Treaty system and our future engagement in Antarctica, as outlined in the *2016 Australian Antarctic Strategy (AAS)* and *20 Year Action Plan* and the *2017 Foreign Policy White Paper*.

The AAS and *20 Year Action Plan* outline an exciting future for Australia's Antarctic program, promising a revitalised science program underpinned by modern and flexible infrastructure.

It also emphasises collaboration and resource sharing with other Antarctic nations and building Tasmania's status as the premier East Antarctic gateway.

The funded element of this plan is in excess of \$2.2bn, with further investment decisions still to be taken.

These activities will be driven by the Australian Antarctic Division (AAD) and be supported by the local Antarctic community. Hobart is home to, and the operational base for the AAD.

New infrastructure at both the Hobart Port and Hobart Airport will open up greater opportunities for Hobart as a shipping and aviation hub.

The Tasmanian Government is also supporting the development of a new Antarctic and Science Precinct at Macquarie Point in Hobart.

With new infrastructure coming online, increased interest in the East Antarctic region, increased logistics and science collaboration between Antarctic nations, and the release of the *20 Year Action Plan*, a number of substantial opportunities have emerged for Tasmania's Antarctic and Southern Ocean sector.

Through the *Tasmanian Antarctic Gateway Strategy*, the Tasmanian Government will make the most of these opportunities for the benefit of the broader Tasmanian industry and community.

Governance

The Department of State Growth will lead a coordinated and collaborative approach to the implementation of this strategy, drawing on the expertise of other government agencies such as the Department of Premier and Cabinet, Infrastructure Tasmania, the University of Tasmania and other key stakeholders such as the AAD, Tasports, Hobart Airport, science and research institutes and other key industry participants.

The new Tasmanian Antarctic Gateway (TAG) advisory group will develop an implementation plan to deliver the strategy and convert Tasmania's opportunities for the sector. It provides a platform for a coordinated whole of government and industry approach to the implementation of its actions through commercial and government channels and monitoring the effectiveness of the strategy.

This group will be chaired by an independent chair and report on progress against the five goals of this strategy.

Representatives will be drawn from key stakeholders in government, infrastructure and logistics, science and research and industry.

Vision

Our vision is for Tasmania to be the world's Antarctic gateway of choice that delivers economic growth and increasing opportunity for our community and supports a strong and vibrant Antarctic and Southern Ocean sector.





Purpose

With this strategy we aim to:

- enhance Hobart's standing as an international Antarctic and Southern Ocean science and research hub
- attract international Antarctic program visits to Tasmania
- attract additional Antarctic research investment and science collaboration to the state
- stimulate export and trade of Tasmanian polar, remote and maritime products and services
- encourage and facilitate a collaborative approach to growing the sector.

Goals and actions

The *Tasmanian Antarctic Gateway Strategy* is built on five goals:

1. strengthen Antarctic and Southern Ocean research, education and training
2. facilitate international engagement and visitation
3. facilitate polar innovation and expertise
4. facilitate investment in Tasmania's future Antarctic gateway infrastructure
5. facilitate active collaboration.

Goal 1: Strengthen Antarctic and Southern Ocean research, education and training

Strengthen Antarctic and Southern Ocean research, science and training investment in Tasmania through supporting the world leading science, education and research institutions located here.

Support from all levels of government and the University of Tasmania has played a crucial role in developing Hobart's endowment of globally significant research and teaching infrastructure. This differentiates Hobart from other gateway cities.

The University of Tasmania's Institute for Marine and Antarctic Studies (IMAS) and many of the CSIRO Climate Science Centre researchers are located in purpose-built facilities on the Hobart waterfront.

Co-located with IMAS is the globally significant Antarctic Climate and Ecosystem Cooperative Research Centre (ACE CRC), the international project office for the Southern Ocean Observing System (SOOS), the national project office for the Integrated Marine Observing System (IMOS) and the Australian Research Council funded Special Research Initiative for Antarctic Gateway Partnership (ARCSRI). Hobart is also home to the Bureau of Meteorology's (BoM) Antarctic office.

Australia's icebreaker *Aurora Australis* and the Marine National Facility, *RV Investigator* are based in Hobart.

Science agencies employ more than 620 staff, making Hobart's role as an Antarctic gateway city unique as a site of cold-climate expertise and research.

These institutions support more than 150 postgraduate students from all over the world. These early-career scientists will become the next generation of global scientific leaders.

The research institutions in Hobart stimulate sector growth through creating international science partnership opportunities and attracting international research vessels to the state. These in turn drive local private sector activity and may generate opportunities to attract other organisations to the state.

This capability contributes to Tasmania's ongoing transformation to a more diversified, knowledge-based economy and to the Tasmanian Government's efforts to grow the population through attraction and retention of skilled migrants from interstate and overseas.

The Tasmanian Government recognises the economic importance of maintaining and growing the presence of Antarctic and Southern Ocean science institutions, as well as the significance to Tasmania of Australian Government investment in key agencies.

Action 1.1

- Engage with the Australian Government on long-term funding and collaboration arrangements for Tasmanian-based Antarctic research organisations.

Action 1.2

- Work with key stakeholders on development of an Antarctic precinct at Macquarie Point.

Action 1.3

- Work with local Antarctic and Southern Ocean science research institutions to identify opportunities for promoting Hobart as a global centre of cutting edge research.



Goal 2: Facilitate international engagement and visitation

Facilitate greater engagement with international Antarctic programs to drive growth in visitation and use of Tasmania's Antarctic gateway.

As the gateway port closest to East Antarctica, Hobart is the natural headquarters and resupply port for the Australian Antarctic Program (AAP). This has initiated many international engagement opportunities for Tasmania.

The Institut Polaire Français Paul-Emile Victor (IPEV) has also been using Hobart as its Antarctic support base for many decades. IPEV provides valuable support to Hobart-based science programs through shipping, logistics and research support. The Tasmanian Government signed a Memorandum of Understanding (MoU) with IPEV on Antarctic gateway collaboration in 2014.

Australia and China have collaborated for more than 30 years in Antarctic science and logistics and the Tasmanian Government signed a MoU with the State Oceanic Administration of China on Antarctic gateway cooperation in 2013. The TPN and the Polar Research Institute of China have signed a MoU to use Hobart as a technical services hub for maintenance and supply of specialised equipment.

The AAP enjoys close science and logistics collaboration with the United States of America and the AAD air link conveys US expeditioners to McMurdo Station from both Hobart and Christchurch. US research vessels visit Hobart periodically.

South Korea's icebreaker *Araon* visits Hobart each season to source fuel and to access specialist Tasmanian products, such as traverse equipment. Other nations, including Japan and Italy also visit.

The Tasmanian and Australian Government have signed a MoU to develop a joint polar medical initiative, the Centre for Antarctic, Remote and Maritime Medicine (CARMM) which provides further opportunities for international engagement.

Civic gateway collaboration between Hobart and Christchurch is maintained by the Hobart and Christchurch City Councils which are parties to a Gateway Councils' Agreement on Antarctic Cooperation that also includes Cape Town, Ushuaia and Punta Arenas.

Key international Antarctic institutions such as the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) and the Agreement for the Conservation of Albatrosses and Petrels (ACAP) are headquartered in Hobart and contribute significantly to Tasmania's global standing as a centre of expertise.

Action 2.1

- Support the Hobart Airport and Tasports' development of Antarctic gateway infrastructure to grow an East Antarctic international aviation hub and accommodate future shipping growth.

Action 2.2

- Develop new market opportunities through Tasmanian Government trade missions and by promoting Antarctic capability at international forums.

Action 2.3

- Expand relationships with gateway users such as the Antarctic programs of France, China and South Korea.

Action 2.4

- Attract and support international Antarctic meetings and events in Tasmania, and leverage these opportunities to promote local Antarctic capabilities.







Hammering sediment corer, Robertson Channel, Windmill Islands. Photograph by Grant Dixon, Australian Antarctic Division, © Commonwealth of Australia

Goal 3: Polar innovation and expertise

Facilitate the support of Tasmanian businesses in growing their capability in polar innovation and expertise, and support their participation in major contract bids.

Tasmania is fortunate to host globally recognised polar expertise which supports the complex science undertaken in Antarctica.

Many national Antarctic programs, including those of Australia, France, Italy, China, the United States, New Zealand, Korea, Russia and Japan, source cold-climate products and services provided by Tasmanian businesses. A multitude of specialised manufacturing and technical products have been customised to meet the scientific requirements and operational needs of different Antarctic programs. The design, engineering and manufacture of equipment for traverse in the Antarctic interior is just one such area of Tasmanian industrial innovation.

These capabilities have been developed over many decades of support for Antarctic program activities and are constantly improving to respond to new challenges.

Ground-breaking innovation is also evident at the University of Tasmania, through the Australian Maritime College (AMC), which has developed a next generation polar-capable, autonomous underwater vehicle (AUV), underpinned by a \$7.5 million investment from the Australian Government.

Public and private sector organisations are coordinated through the TPN, a cohesive membership organisation of more than 70 businesses, research institutions and government agencies which work together to build opportunities for the sector. TPN members provide specialised products and services in areas as diverse as scientific instrumentation, ship outfitting and food provisioning, technical and mechanical products and services, waste management, medical services and marine engineering. No other Antarctic gateway hosts an organisation like the TPN, with its diversity of membership and range of capabilities.

Modernisation initiatives to be implemented by the AAD over the next decade include a new icebreaker, improved aviation and traverse capability and station renewal. As well as strengthening Australia's activities in Antarctica, these projects have the potential to generate employment and prosperity for Tasmania if local companies' capability can be developed and leveraged.

The Tasmanian Government will work with local industry, industry associations and government bodies to build skills and capabilities to enable businesses to respond to these opportunities. This will include accessing Tasmanian Government initiatives such as assistance offered under the *Tasmanian Advanced Manufacturing Action Plan*, the *Our Fair Share Defence Strategy* and through Skills Tasmania.

Action 3.1

- Maintain support for the TPN and invest in its strategic activities.

Action 3.2

- Work with and support local businesses to access opportunities arising from Antarctic science, traverse, aviation, shipping and station modernisation requirements.

Action 3.3

- Facilitate relationships between Tasmanian businesses to harness skills and find customised solutions for Antarctic needs.

Action 3.4

- Facilitate Tasmanian businesses' participation in initiatives to improve skills and capability to respond to Antarctic opportunities.



Goal 4: Facilitate investment in Tasmania's future Antarctic gateway infrastructure

Facilitate investment in Tasmania's future Antarctic infrastructure to maximise benefits derived from increased shipping, aviation and tourism activity.

Tasports and the Hobart Airport provide crucial infrastructure for our Antarctic gateway's future success. This infrastructure also provides many economic benefits for trade, tourism, defence capability, maritime safety and support of maritime search and rescue.

Tasports facilitates full port services for Antarctic research and supply vessels in Hobart and has invested in a dedicated Antarctic and cruise terminal at Macquarie Wharf No 2. Sea-floor levelling and modifications undertaken at Macquarie Wharf No 2 will now provide for year-round layup of the new Australian icebreaker.

A range of further activities to accommodate growth and attract new customers are included in Tasports' *Hobart Port Master Plan* (2016). The plan outlines additional investment in infrastructure, describing options for refuelling and enhanced Antarctic logistics facilities at Macquarie Wharf No 2.

Hobart Airport is home to Australia's Antarctic aviation program. An Airbus A319 operates regular intercontinental passenger flights from Hobart to the Wilkins blue ice runway and McMurdo runway in Antarctica. The AAD and Royal Australian Air Force have also successfully commenced regular freight flights with a Globemaster II C-17 aircraft. The Hobart Airport runway is being lengthened to allow for larger payloads and longer-range flights.

The Hobart Airport is also developing an Antarctic and freight precinct plan to support existing operations and opportunities for a future East Antarctic aviation network. This investment in the airport supports the Australian Government objective to establish a year-round aviation capability between Hobart and Antarctica.

The Tasmanian Government is supporting the development of an iconic Antarctic and Science precinct, at Hobart's Macquarie Point with world-class facilities that will attract international visitors for research collaboration and tourism.

The opportunity exists for this precinct to accommodate growth of Antarctic research and policy organisations, cluster technical and support services close to the working port, attract new investment to Tasmania and strengthen the Antarctic gateway brand.

The exciting work being undertaken at Macquarie Point, Hobart Port and the Hobart Airport will strengthen Tasmania's competitiveness as the preferred gateway to East Antarctica and the Southern Ocean.

Action 4.1

- Facilitate investment in Hobart Port to provide enhanced international Antarctic logistics facilities.

Action 4.2

- Advocate Hobart Airport's proposed development of a multi-user cargo, fuel and Antarctic services facility.

Action 4.3

- Facilitate investment and engage key stakeholders to maximise opportunities at the Macquarie Point Antarctic and Science precinct.



Goal 5: Facilitate active collaboration

Facilitate active collaboration between Tasmania's Antarctic business and science community, and the Australian and Tasmanian Governments to grow Tasmania's Antarctic capabilities.

Antarctic stakeholders include Australian, Tasmanian and local government, scientific research and education organisations, local businesses and international secretariats. Broad collaboration between these stakeholders enhances Tasmania's scientific reputation and economic competitiveness.

The Tasmanian Government plays a leadership role in facilitating collaboration and supporting stakeholders by providing organisational support, resources and policy advice through Antarctic Tasmania, a dedicated business unit within the Department of State Growth.

The new TAG advisory group will facilitate collaboration by bringing together senior representatives from government, science and industry and provide advice to the Tasmanian Government on opportunities for future growth.

The benefits of this inclusive and collaborative approach to Antarctic gateway initiatives identified in this strategy also flow to related industry sectors such as manufacturing, international education and defence.

Action 5.1

- Broaden Antarctic Tasmania to include maritime industries and a statewide industry and enterprise client service team, ensuring all Tasmanian industry is aware of, and supported in, accessing opportunities for supply to the Antarctic sector and the Tasmanian Antarctic gateway.

Action 5.2

- Through TAG, identify opportunities to support Tasmania's science and research institutions

Action 5.3

- Work with the Australian Government and the Australian Antarctic Division to drive strategic initiatives for the Tasmanian Antarctic gateway.

Action 5.4

- Support the TPN in building collaboration among its membership and in developing broader networks to support their objectives.

Action 5.5

- Encourage a sector-wide approach to implementing Antarctic initiatives and promoting the Tasmanian Antarctic gateway through the establishment of the Tasmanian Antarctic gateway advisory group.

Action 5.6

- Support and facilitate joint initiatives such as the Centre for Antarctic Remote and Maritime Medicine, a collaboration between the Tasmanian and Australian Governments, the University of Tasmania and the Tasmanian health sector to build strategic capability.





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