

23 January, 2025

Committee Secretary
Parliamentary Standing Committee on Public Works
PO Box 6021
Parliament House
Canberra ACT 2600

# Department of Climate Change, Energy, the Environment and Water – Southern Ocean Research Aquarium

**Dear Committee Secretary** 

The proposed Southern Ocean Research Aquarium to be established in Hobart represents an opportunity for Australia to develop landmark science infrastructure and enhance its status as a world leader in Antarctic and Southern Ocean research.

The Tasmanian Government supports the construction of the Southern Ocean Research Aquarium in Hobart and through this submission, seeks to highlight the benefits that this facility will deliver to the Antarctic and Southern Ocean scientific and research sector and the Tasmanian Antarctic gateway.

#### Tasmania as a World Class International Antarctic Gateway

Tasmania's geographic location means it is one of the few places in the world that is a natural gateway to Antarctica.

Tasmania's strong scientific, policy, logistics, advanced manufacturing and technological capabilities, together with Hobart's port and airport logistics and supply infrastructure, makes Tasmania a natural hub of Antarctic activity and international engagement.

Hobart is home to the Australian Antarctic Program, led by the Australian Antarctic Division, and accommodates an impressive assembly of Antarctic and Southern Ocean organisations. It is homeport to Australia's state of the art icebreaker, RSV *Nuyina*, and the blue water research vessel RV *Investigator*. It also supports visiting research vessels and icebreakers from other nations, including French vessel *L'Astrolabe*, which is home-ported in Hobart during the summer Antarctic season.

Growing Hobart's reputation and importance as a globally recognised hub of Antarctic capability and excellence as an international gateway to the Antarctic and Southern Ocean is a primary focus for the Tasmanian Government. This is reflected in the Government's *Antarctic Gateway Strategy 2022-2027*.

The Tasmanian Government's commitment to Antarctica aligns with the Australian Government's *Australian Antarctic Strategy and 20-year Action Plan* (2022 Update) and its objective to "build Tasmania's status as the premier East Antarctic gateway for science and operations".

Tasmania supports Australia's commitment to the Antarctic Treaty System and Australia's Antarctic and Southern Ocean activities.

# Value of the Antarctic Sector to Tasmania

The Tasmanian Government reports on the value of the Antarctic and Southern Ocean sector to the Tasmanian economy every two years. This report has demonstrated substantial growth in the sector over the past decade. In 2021-22, the Antarctic and Southern Ocean sector contributed more than \$183 million to the Tasmanian economy, increased from \$159 million in 2019-20.

The Antarctic and Southern Ocean sector, which provides research, training, and support services to Antarctic programs, both Australian and international, now employs close to 1000 people in Tasmania. This constitutes an extra 322 jobs created in the last ten years, a significant growth of 32 per cent in employment in the sector.

Visitation to Tasmania's Antarctic gateway by international Antarctic programs is a significant contributor to Tasmania's economy.

Tasmania's importance as Australia's Antarctic gateway is becoming ever more crucial as the Australian Government and international parties increase investment in polar science capabilities, and attention shifts to the rapid climatic changes in East Antarctica and the Southern Ocean.

#### **Antarctic and Southern Ocean Science in Tasmania**

Australia is committed to leadership in Antarctic and Southern Ocean science and Tasmania shares this vision.

Hobart proudly hosts the largest concentration of cold-climate researchers in the world. Alongside the Australian Antarctic Division, Hobart is home to a number of significant research and science organisations, including Australia's national science agency CSIRO, the University of Tasmania's Institute of Marine and Antarctic Science (IMAS), and the Australian Antarctic Program Partnership (AAPP).

Tasmania's Antarctic and Southern Ocean research community is building our understanding of a rapidly changing environment. The University of Tasmania is the leading university in the world for climate action. The strength of the Antarctic sector was demonstrated at the recent Australian Antarctic Research Conference in Hobart, which brought together Australia's leading polar researchers, scientists and public policy experts to focus on the current challenges facing Antarctica and the Southern Ocean. This was the first conference of this nature for over a decade and attracted over 450 delegates from across Australia and overseas.

Hobart hosts the headquarters of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). CCAMLR is a multilateral organisation established by international convention under the Antarctic Treaty in 1980 and is responsible for managing the conservation and sustainable harvesting of Antarctic marine living resources, including krill.

Antarctic krill is the keystone animal species of the Antarctic ecosystem. East Antarctica is home to significant and incompletely understood krill reserves, and krill fisheries are a significant and growing global business. Australia is recognised as a global leader in krill research, which is essential for sustainable management of this valuable ecosystem.

#### **Contribution to the Tasmanian Antarctic Gateway**

The Southern Ocean Research Aquarium, to be built in Tasmania through a collaboration between the Australian Antarctic Division and the University of Tasmania's IMAS, will replace an existing krill

aquarium at the Australian Antarctic Division's Kingston headquarters, which is reaching the end of its operational lifespan. The requirement for a new facility was identified by the Australian Government in its *Australian Antarctic Strategy and 20-year Action Plan* (2022 Update).

The Aquarium will allow expanded research on krill and other related species in the Southern Ocean, producing new insights enhancing the understanding of impacts of climate change on the Antarctic and Southern Ocean region.

Seamless collection and transfer of live krill from the RSV *Nuyina* will maximise the krill research potential of the investment already placed in the Hobart-based icebreaking research vessel.

The establishment of a world leading research facility in Hobart jointly by the Australian Antarctic Division and the University of Tasmania will not only enhance Australia's capability for high quality scientific research; it will facilitate the attraction and retention of talented Antarctic and marine scientists in Tasmania.

The Research Aquarium will contribute to the Antarctic sector through increased krill research capability and additional employment in the sector. It will continue to keep our precious natural resources safe through strengthened biosecurity measures in the facility. It will deliver keystone infrastructure which will not only increase understanding of krill stocks in the Southern Ocean and support their sustainable management, but also further contribute to the critical mass of Antarctic and Southern Ocean expertise which draws collaborators from around the world to Tasmania.

This collaboration can have real economic impact to the Tasmanian and Australian economies, through employment, research outcomes and logistics visits to the Tasmanian Antarctic gateway. These outcomes will contribute to enhancing Australia's leadership in the Antarctic Treaty System.

## Collaboration is a key driver of economic growth in the Antarctic sector

Through scientific activity in the Antarctic and Southern Ocean Sector, Tasmania has generated an expanding commercial ecosystem.

Many National Antarctic Programs are increasing their focus on the rapidly changing climate impacts in Antarctica and the Southern Ocean. International science and research collaborations are a key driver for international engagement and visitation to Tasmania's Antarctic gateway. Collaboration can be facilitated in many ways – through researchers visiting international secretariats or research organisations, and through the shared use of infrastructure that supports Antarctic logistics and research.

It can be challenging to measure the economic benefit of research infrastructure, but the Value of the Antarctic and Southern Ocean sector to the Tasmanian Economy report has shown that money spent in the Antarctic sector has a significant multiplying effect. CSIRO's Marine National Facility (MNF), also hosted in Tasmania, demonstrated that the MNF has a Benefit to Cost ratio of 3.3 - 7.3:1.

As a state-of-the-art facility, the Southern Ocean Research Aquarium will attract national and international collaboration partners seeking specialist infrastructure for innovative and cutting-edge research activities, further enhancing the Antarctic gateway and generating research impact in support of Australia's National Interests.

## **Concluding statement**

Australia is a world leader in Antarctic and Southern Ocean research. To maintain Australia's standing within the Antarctic science community, the Australian Antarctic Program requires the support of advanced technical and science infrastructure. Research enabled by the Southern Ocean Research Aquarium will allow for an increased understanding of Antarctic krill and inform the conservation and management of Southern Ocean fisheries. Increased knowledge of the Antarctic and the Southern Ocean ecosystem allows a deeper understanding of the impacts of climate change on our environment.

The Southern Ocean Research Aquarium will enhance Australia's Antarctic Program and grow Tasmania as a hub of Antarctic capability and excellence, elevating Tasmania's status as a key international Antarctic gateway.

Tasmania welcomes this infrastructure, which will greatly increase Australia's already-renowned leadership in understanding sustainable management of a globally significant resource in a rapidly changing climate.

Yours sincerely

Jeremy Rockliff MP

Premier

Minister for Trade and Major Investment