AUSTRALIAN ANTARCTIC PROGRAM PARTNERSHIP

Communications Strategy 2023-2025

Version 3, January 2023

The Australian Antarctic Program Partnership (AAPP) is funded by the Australian Government Department of Industry, Science and Resources through the Antarctic Science Collaboration Initiative.

Australian Government
Department of Industry, Science and Resources

The AAPP is led by the University of Tasmania, with the following partner agencies:

University of Tasmania IMAS Institute for Marine and Antarctic Studies

Australian Government Department of Climate Change, Energy, the Environment and Water Australian Antarctic Division

Australian Antarctic Program

CSIRO

Australian Government Bureau of Meteorology

Australian Government Geoscience Australia

Tasmanian Government

IMOS Integrated Marine Observing System

AIM OF COMMUNICATIONS STRATEGY

To protect Antarctica and the Southern Ocean is to protect our future on this planet

The Australian Antarctic Program Partnership will improve our understanding of the role of Antarctica and the Southern Ocean within the global climate system and its implications for marine ecosystems. AAPP is a $50 million research program funded for 10 years, from 2019 to 2029.

Through the power of collaborative integrated science and effective communication, our partnership aims to inform impactful and timely policy responses to climate change.

Every tenth-degree of warming matters. This is the critical decade for decisions on emission rates to avoid tipping points in Antarctica and the Southern Ocean that affect the entire planet. Halving emissions by 2030 can minimise the risks of crossing irreversible thresholds for frozen Earth.

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1. Overview

This *Communications Strategy* has been prepared as a guide for communications and stakeholder engagement activities by the Australian Antarctic Program Partnership (AAPP). This strategy is an update of the first version (2019-2021) of the AAPP Communications Strategy endorsed by the Management Committee (MC Meeting #6).

Consistent with the objectives of the *AAPP Commonwealth Grant Agreement* (ASCI000002) and *AAPP Formal Collaborative Agreement,* the document sets out the goals, key messages, outputs, and planned activities for raising the public profile of the AAPP and its work and communicating the impacts of AAP research. These activities will also be supported by communications personnel from AAPP partner agencies.

This *Communication Strategy* and its implementation will be reviewed after two years. It is to be implemented in parallel with the *AAPP Research Impact Plan* (under development). It is envisaged that the *Communication Strategy* and *Research Impact Plan* will share the same key audiences (public, partners, and policy makers) and interact symbiotically (ie. communication creates impacts, which leads to enhanced communications).

2. Background

The AAPP is an Australian Government funded initiative through the Antarctic Science Collaboration Initiative (ASCI) Program bringing together leading Australian research agencies to work together on pressing issues in Antarctic science. Core participants of the AAPP are the Australian Antarctic Division (AAD), CSIRO, the University of Tasmania (UTAS), and the Bureau of Meteorology (BoM). Geoscience Australia (GA), the Tasmanian State Government and Australia's Integrated Marine Observing System (IMOS) are Associate Participants within the AAPP.

The principal drivers for the AAPP derive from the fact that it is:

- a multi-institutional Antarctic scientific collaboration (unincorporated joint venture);
- funded by the Australian Government;
- reliant on in-kind contributions and logistics by partners;
- underpinned by the 2016 Antarctic Strategy and 20 Year Action Plan, and 2022 update;
- operating within the *Australian Antarctic Science Strategic Plan* of the Australian Antarctic Science Council;
- guided by the new Australian Antarctic Science Decadal Plan, under development.

Research themes

The primary focus of AAPP communications will be on the scientific activities undertaken by the partnership, which are organised into three inter-dependent themes:

- Antarctica's Influence on Climate and Sea Level;
- The Nature and Impacts of Southern Ocean Change; and
- The Future of Antarctic Sea Ice, Krill, and Ecosystems.

Antarctica, the Southern Ocean, its sea-ice cover and overlying atmosphere influence the entire globe. The Southern Ocean is the dominant ocean sink of anthropogenic heat and carbon dioxide. Ocean currents also influence the ice shelves that stabilise the Antarctic Ice Sheet. Nutrients exported from the Southern Ocean support 75% of marine productivity north of 30°S, while the availability of iron and other trace elements regulates the productivity of Antarctic marine ecosystems. Antarctic sea ice influences the climate of the Earth, the global overturning circulation, ocean–ice shelf interaction, biogeochemical cycles, and provides unique habitat for the keystone species krill and many other organisms. Antarctic ice cores provide a unique long-

term perspective on global environmental change, allowing recent and projected change to be placed in context.

Given the global reach of Antarctic and Southern Ocean processes, knowledge of how and why the region will change in the future is essential to provide an informed response to the challenges of a changing and variable climate. Indeed, the present generation of earth system models is recognised to have substantial biases in the region, limiting confidence in global model projections. These changes in Antarctica are occurring in concert with expanding human interest and activity in the region. The AAPP will provide the environmental and ecological understanding essential to sound stewardship of Antarctica and the Southern Ocean. It will build on achievements of the ACE CRC and its predecessors to tackle critical unknowns in Antarctic and Southern Ocean science, as identified by fora such as the Antarctic Treaty System, the SCAR Horizon Scan, and the IPCC Special Report on the Oceans and Cryosphere in a Changing Climate.

The geographical scope of the AAPP extends from the Antarctic continent to the Southern Ocean. The AAPP research strategy spans and integrates multiple disciplines to answer key questions in Antarctic science, including atmospheric science, physical oceanography, marine biogeochemistry and ecology, and glaciology through the study of sea ice, ice shelves, and continental ice. While the scope is broad, the AAPP science plan has been carefully targeted to invest resources where they will deliver the most impact, by filling key gaps and providing critical connections between disciplines and agencies.

3. Goals

The goals of this *Communication Strategy* necessarily align with the activities established under the AAPP *Commonwealth Grant Agreemen*t, which calls for the "targeted delivery of research to decision-makers in government, industry and the community."

Outcomes of AAPP include "excellent science providing support for Australia's strategic influence in the region and for robust policy and management decisions conserving the unique values in Antarctica and the Southern Ocean in accordance with Australia's national interests in Antarctica."

Given the limited communication resources available to the AAPP, it is important that these goals are clearly defined and understood, with resources allocated to where they can achieve maximum impact.

The goals of AAPP-related communications are as follows:

1. **Create** a differentiated set of communication products that complement the communication activities already being undertaken by partner agencies and the two ARC SRI's ACEAS and SAEF.
2. **Communicate** AAPP research activities and outputs widely and effectively.
3. **Demonstrate** how AAPP research delivers against Australia's long-term strategic science goals.
4. **Show** how AAPP is helping realise a science return on Australian investments in infrastructure.
5. **Promote** productive engagement with local, national and international stakeholders.
6. **Highlight** the achievements of a wide range of staff within the program.
7. **Emphasise** the important economic role of Antarctic science in Hobart.

Commonwealth Grant Agreement

Under the *Commonwealth Grant Agreement*, funding of $50 million over ten years for the AAPP has been provided by the Australian Government's Department of Industry, Science and Resources (DISR) through the ASCI program. The agreement outlines the AAPP's focus on research on the Australian Antarctic Territory and adjacent Southern Ocean, addressing the priorities identified in the *Australian Antarctic Science Strategic Plan.* The objectives of the ASCI program are as follows:

- To support research that aims to understand the role of the Antarctic region in the global climate system and the implications for marine ecosystems.

- To enable the Australian Antarctic Program Partnership to undertake collaborative science, research and innovation activities under the *Australian Antarctic Science Strategic Plan*.
- To secure Antarctic science jobs in Hobart.

The intended outcomes of the ASCI are:

- Continued scientific research activity in the Australian Antarctic Territory, aligned with the objectives and science outcomes of the *Australian Antarctic Science Strategic Plan*.
- Employment and funding certainty for experts, students and early career researchers to strengthen Antarctic science capability in Australia.

Australian Antarctic Science Strategic Plan (AASSP)

The AAPP directly addresses three of the four streams of the AASSP that are relevant to understanding the role of the Antarctic region in the global climate system and the implications for marine ecosystems: Environmental Protection and Management; Ice, Ocean, Atmosphere and Earth Systems; and Digital Integration. External communications activities will seek to highlight how AAPP collaborative field and marine activities align with the objectives identified in the AASSP, including science and monitoring, observations and experimental studies, process studies, data synthesis, and decision support tools.

The AAPP research strategy has been designed to take advantage of significant new opportunities, including substantial investments in infrastructure made as part of the AASSP. External communications activities should therefore seek, wherever possible, to highlight how the AAPP investment is helping to realise the science return on these investments in infrastructure. These include:

- Utilisation of *RSV Nuyina,* which will bring unprecedented capability in atmospheric and marine science.
- Inland traverse capability, making it possible to obtain deep ice cores with the potential to provide records of past climate exceeding a million years.
- Upgrades of existing Antarctic and sub-Antarctic research stations.

4. Key Messages

Where it is appropriate, the following concepts should be incorporated into published materials relating to AAPP activities.

1. AAPP research is enhancing our understanding of the role of the Antarctic region in the global climate system, and the implications for marine ecosystems.
2. AAPP research is aiding decision-making by government, industry and in the community.
3. The AAPP is supporting Australia's long-term strategic science objectives in Antarctica.
4. Multi-institutional collaboration is essential to achieving high-impact Antarctic research outcomes.
5. Investments in research infrastructure are helping to deliver science dividends for Australia.
6. The AAPP is continuing to build a vibrant Antarctic research community in Hobart, to grow Tasmania and Australia as a global Antarctic research hub. The investment in AAPP directly supports 260 FTE-equivalent science and science-support jobs in Hobart over the AAPP's lifetime and also supports Antarctic and related research through additional competitive grants and international collaboration.
7. AAPP provides open access to all data and data products produced (with an aim of supporting the AAD Integrated Digital East Antarctica and East Antarctica Monitoring Programs). Digital Antarctica is an agreed standardised framework to facilitate data sharing across multiple Antarctic research organisations, completed by AAPP in 2022.
8. Fieldwork is at the heart of our collaboration with scientists and agencies from Australia and around the world.

9. Investment in AAPP is helping to realise the science returns on investment in Antarctic research infrastructure by the Australian Government.

5. Challenges

Operating environment

The AAPP operates in a multi-institutional environment with the University of Tasmania as the lead agent for the partnership and with other core partners AAD, CSIRO and BoM, and associate partners IMOS, Geoscience Australian and the Tasmanian Government. The AAPP exists within a complex communications environment. A key challenge is ensuring that end-users, stakeholders and partners do not become neglected, and that each partner receives timely information relevant to their requirements.

Role clarity

A lack of understanding over the organisation's role in the Antarctic science sector presents a range of communications challenges. The complex nature of the organisation's relationships with other dominant players in the sector (AAD, CSIRO, UTAS and BoM) requires careful explanation to stakeholders and media representatives. Consideration of AAPP research against the research programs of SAEF, ACEAS and other agencies will help to differentiate communications and define linkages (see Appendix 1 and Section 8 Protocols).

Media skills

Researchers with an ability to communicate complex climate science to a general audience are highly valuable. A researcher who can clearly articulate a complex idea in a television or radio interview will always be in demand. Ongoing training will be required to up-skill lower profile researchers and ensure the AAPP has a wide talent pool covering a range of fields.

Training in media and production skills will be developed and offered to researchers from AAPP and partner agencies. This will provide guidance in posting on AAPP social media; basic production techniques for videos and photos; practice interviews on camera; and as an initial exercise, to develop short profile videos for the AAPP website.

Funding

The *Commonwealth Grant Agreement* expires 30 June 2029. The AAPP Management Committee will be actively considering, over the term of this strategy, future funding opportunities and business models to continue the important high latitude climate and ecosystem science it is renowned for.

6. Audience

The AAPP's research program is directed at informing responses to a society-wide challenge in a world in which the climate is changing in unprecedented ways. The AAPP is therefore concerned to communicate its research outputs as widely as possible, delivering maximum impact. In this respect it will build upon the long-standing, proactive and regular engagement with end-users established by the previous Antarctic Climate & Ecosystems Cooperative Research Centre, with a continued focus on the critical interface between climate science, government and industry.

The AAPP's audience may be grouped into five categories:

- Commonwealth and State Government policy makers
- Partner institutions and associate participants
- International organisations (eg. SCAR, CCAMLR, IPCC) and programs (eg. CLIVAR, IPICS, SOCRATES)
- Staff and students
- General public including industry

7. Platforms

The AAPP will employ a wide variety of communication channels and platforms to deliver timely assessments of recent developments in climate science and policy issue. Face-to-face briefings of relevant Government bureaucrats and politicians by senior staff will continue through forums like "Science Meets Parliament". Plain-English publications of the latest research in particular fields will be circulated to Government policy-makers and planners and the wider community about our current state of knowledge and the implications for the future. Researchers will use workshops, seminars, and science conferences to discuss their findings. There will be ongoing engagement with the broader public through traditional and social media, via science blogs during fieldwork, and through participation in educational programs and events.

These channels are briefly described below.

AAPP website

The AAPP website at www.AAPPartnership.org.au serves as the primary platform for communications with a widest-possible audience. The website includes pages for news, publications, staff, contacts, partner organisations, and current vacancies. The website is managed by the AAPP Communication and Impact Officer.

Micro-sites in the form of 'scrolly-telling' features will be developed for particular projects and topics (such as this interactive feature about krill research) – for example, a timeline of the contribution of AAPP research to the IPCC and its impacts.

A new monitoring platform (ie. Airtable, consistent with ACEAS and IMOS) will be implemented to enable staff and students to record their activities both for internal use and publication of searchable databases on the website for media, publications, presentations, awards, workshops/events, memberships and any other KPI-relevant data.

Printed publications

Position Analyses and Report Cards will provide synopses in plain English of the latest research in particular fields to inform Government policy-makers and planners and the wider community about our current state of knowledge and the implications for the future. Technical reports will be published and distributed to key stakeholders and publicly available on the AAPP website.

A publications list will be made available on the website to provide easy access to outputs and impact statements of the Partnership.

E-newsletters

Quarterly e-newsletters will be distributed to the UTAS community, AAPP partner organisations, government departments and other stakeholders. These newsletters will summarise news highlights, achievements and research impacts of the Partnership Program.

Traditional Media

Where appropriate, the AAPP will issue media releases to mainstream news outlets to promote activities such as fieldwork, scientific publications, public events, international visits, awards, and any stories that might be of interest to a broad audience.

The AAPP Communication and Impact Officer will seek regular spots for radio interviews by willing staff/students (supported by training and practice) and develop a location for video interviews via Zoom with broadcast-quality lighting and audio.

Where appropriate, the AAPP Communication and Impact Officer will pitch long-form stories to editors of newspaper opinion pages, magazines and book chapters, and assist in their preparation. *The Conversation* will be a particular focus.

The Communication and Impact Officer has access to the UTAS account of Isentia, a media monitoring service.

Conferences, meeting and workshops (including sponsorship)

Regular conferences (annual, biennial etc) are a major means of communication within the scientific community. The AAPP will establish and maintain its profile through attendance, abstracts, presentations, and posters.

Attendance at conferences will be agreed on an annual basis.

The AAPP may provide cash sponsorships to conference organisers as per the *AAPP Sponsorship of Events* guidelines.

AAPP meetings, workshops and events

The AAPP community has created its own schedule of meetings and workshops:

- The annual planning meeting is the major focus and has become valued as the one opportunity we have to bring all partners together with the office staff and the Management Committee.
- The Management Committee meets at least quarterly.
- Project meetings are self-managed by the AAPP community.
- Workshops and seminars for collaborators and industry will be held.
- An annual symposium on AAPP science projects and fieldwork programs will continue to be held for researchers, staff and partner agencies, and seek to broaden engagement with social sciences, policy developers and media.
- Online seminars showcasing AAPP research and its impacts will be produced, as part of the UTAS 'Island of Ideas' series, aiming for at least four per year. These will feature high production values and will be published on AAPP's social media and website channels. Topics for production in each year's series will be developed with Project Leaders.

Networking

Effective networking will be an important element of building the profile, particularly through the membership of significant committees and boards. It is expected that the AAPP Program Leader will need to hold certain memberships, but also that Management Committee members, and in some cases Project Leaders, would also be playing a key role in building the profile of the AAPP through the various positions they hold.

Parliamentarians

- Face-to-face briefings of relevant Government bureaucrats and politicians by AAPP staff will continue through forums like "Science Meets Parliament". AAPP will seek to showcase early-career researchers in these networking activities.
- The Parliamentary Antarctic Alliance provides a non-partisan forum for parliamentarians to ask questions about Antarctica, raise awareness and understanding of Australia's strategic role and interests in Antarctica, communicate information and host events. Two Tasmanian Senators are currently co-Chairs of the Alliance. AAPP will proactively offer information to the Senators and a willingness for further involvement.
- Tours of facilities in Hobart and presentations from AAPP researchers will be provided for Tasmanian elected representatives at local, state and federal levels.

Ministerial advisers and Departmental programs

- AAPP will offer information packages about our research and impacts to communications staff and other advisers of Ministers in relevant federal departments, in particular:
  - Industry and Science,
  - Climate Change and Energy, and

    - Environment and Water.
- AAPP will seek advice and assistance from the Office of the Science Convenor in DCCEEW to establish and develop linkages with science and climate policy programs of state and federal governments.

Video and imagery

AAPP personnel are encouraged to contribute their own photography and videos of their activities to an AAPP image collection for use on social media and websites.

The AAPP Communication and Impact Officer has been granted access as an external user to the AAD *Image Antarctica* database, enabling our use of catalogued images as well as providing new images to the database from AAPP personnel.

Using contractors, AAPP will produce video packages where appropriate and seek to work with other agencies by contributing imagery and talent to produce co-branded material.

AAPP will aim to collect specialist micrography of polar lifeforms that is not available elsewhere, such as video/photography of Southern Ocean phytoplankton and zooplankton.

The AAPP Communication and Impact Officer will offer basic equipment (eg. lapel mic for phone, hard drives, etc) and training to assist students and staff gather imagery from fieldwork activities.

Where possible and practicable, AAPP will embed media personnel (eg. photographer, videographer, comms officer) in research voyages or fieldwork activities to generate quality content for our various communication channels and platforms.

Social media

Social media is a powerful vehicle for the public exchange of information and views. The AAPP recognises its stakeholders' use of, and participation in, online communities to learn, advocate, collaborate, exchange and contribute for professional and personal development.

The purpose of AAPP social media is to promote our science and its impacts, advertise job and research opportunities, demonstrate how our research is informing decision-makers, highlight our collaboration, and showcase the value of our use of scientific infrastructure.

A hallmark of AAPP social media use is consistent high quality, using relevant imagery, engaging storytelling and innovative applications (such as podcasts, infographics, animations and branded video 'squares'). Wherever possible, social media will link to stories and pages on the AAPP website.

Key audiences targeted with social media include:

- policy makers and end-users of AAPP science (eg. in government departments such as DCCEEW or DISR, or international organisations such as IPCC and CCAMLR);
- scientists in Tasmania and Australia;
- research agencies and/or projects in polar, marine and climate science;
- mainstream media outlets and journalists; and
- general public with an interest in Antarctica and Southern Ocean.

The AAPP has established a presence on twitter (@Ant_Partnership) and LinkedIn, primarily reaching scientists, research agencies, policy-makers and journalists.

In addition, a new AAPP-administered 'Southern Ocean' account established on twitter and facebook enables the Southern Ocean to post as a social media 'personality'. This initiative offers a more populist and less corporate approach to the communication of AAPP science and impacts that has potential for greater online engagement with the general public. Using a 'first person' voice with some humour, it is intended to build

awareness of the significance of the Southern Ocean and its role in the global climate system – and therefore the importance of AAPP research.

The AAPP Communication and Impact Officer is the administrator of the social media accounts and is authorised to post on behalf of the AAPP. Other people can be added as administrators if required.

AAPP Project Leaders, staff and students are encouraged to use their own accounts to post on social media about their research activities (tagging @Ant_Partnership and #AAPPscience). The aim of this 'distributed' model of social media use is to amplify the AAPP coverage with more personalised messages from our scientists (similar to arrangements in place for the 2021 TEMPO voyage).

Participating in social media offers the AAPP a way of being engaged with its communities and staying in touch with sentiment, attitudes and current thinking around Antarctica and Southern Ocean science, research infrastructure and related issues.

Broadly speaking, AAPP content in social media should be related to Antarctica and Southern Ocean issues. It should be apolitical and not aligned with views of any one collaborator in preference to, or in opposition to, views of another. Content posted in social media should enhance the reputation of the AAPP and not put it at risk.

Community outreach

AAPP will continue to support community outreach through activities such as:

- science blogs hosted by scientists and linked to the AAPP website (eg. Frontiers for Young Minds);
- visits by schools to research facilities;
- AAPP staff and students presenting their work in schools;
- hosting work experience students;
- participating in public events such as National Science Week and local initiatives such as 'Beer Aquatic', Festival of Bright Ideas and Beaker Street;
- collaborating with Centre for Marine Socioecology and engaging in programs such as 'Curious Climate';
- developing exhibits and audio-visual presentations for Hobart conferences and exhibitions (eg. 2023 SOOS Symposium, 2024 7th International Zooplankton Production Symposium)
- contributing to Antarctic Science education resources by the Royal Institution of Australia (currently supported by AAD)

8. Protocols

The AAPP's multiple partnership arrangements present a unique set of challenges with respect to branding and publicity. A co-ordinated approach to co-branding is essential to ensure that both the AAPP and its partner institutions receive appropriate recognition for their role in research activities.

AAPP Formal Collaborative Agreement

Sections 32 to 35 of the *AAPP Formal Collaborative Agreement* establish clear protocols for AAPP-related communications activities, including the role of the AAPP Program Leader and partner agencies. These are summarised as follows:

- The AAPP Program Leader is responsible for making and/or delegating public announcements relating to the AAPP.
- Contributing partners should receive clear and prominent acknowledgement of funding and/or technical input in any AAPP published materials or events.
- Where appropriate, partners' institutions should receive the option of including a logo or name mention in the AAPP published materials prior to release.

- Where appropriate, ensure that contributing partners are provided the opportunity for branded materials (such as clothing items and pull-up banners) to be placed prominently at any publicity events.
- Written permission is required for the use of any name or logo of a partner in published materials or public events.
- Journalists and media representatives should be properly briefed on the nature of the partnership arrangements and parties' involvement in projects.
- Partners wishing to publish any Australian Antarctic Division materials (ie. photos or video) must comply with the *Australian Antarctic Program Media Communication and Attribution Policy.*
- Any Intellectual Property is not to be released to any third party.

ASCI Grant Opportunity Guidelines

The Commonwealth Government's ASCI *Grant Opportunity Guidelines* set out the following requirements:

- Public statements about a project funded under the program must acknowledge the grant by using: 'This project received grant funding from the Australian Government'.
- If signage is erected in relation to the project, the signage must contain an acknowledgement of the Australian Government.

9. Evaluation

Success will be measured by:

- Monitoring performance against the bi-annual action plan to ensure that all milestones are met.
- Analysing data gathered through use of new monitoring platform Airtable (to replace Cle(v)er)
- Analytics from the AAPP website and social media.
- Obtaining feedback from key stakeholders.
- Media coverage analysis using data from Isentia

10. Two Year Action Plan

Date	Activity
Dec 2022	Update AAPP website with student/staff profiles
Mar 2023	AAPP e-newsletter (Jan-Mar 2023)
June 2023	AAPP e-newsletter (Apr-Jun 2020)
September 2023	AAPP e-newsletter (Jul-Sep 2023)
December 2023	AAPP e-newsletter (Oct-Dec 2023) 2023 AAPP Symposium
Ongoing to be scheduled)	Social media posts (twice weekly if possible)

Program Leader updates to staff (monthly)

E-newsletter (quarterly)

Production of news items for the website (avg 2 per month)

New monitoring platform Airtable (to replace Cle(v)er)

Staff and student profile stories for website and socials

Targeted outreach to key Ministerial staff across three Federal portfolios (Climate Change and Energy, Environment and Water, Industry and Science)

New website features for longer-form interactive story-telling

Research Impacts plan (to be developed) implemented in parallel with comms plan

Develop a 'Funder's Forum', in consultation with UTAS Research Office

Media training and practical skill-building for students/staff from AAPP and partner agencies

Seminars/webinars to focus on impacts and policy, high production values, ~4/year

Appendix 1

COMPARISON OF SRI and AAPP RESEARCH THEMES

CONSORTIUM	THEME/PROGRAM 1	THEME/PROGRAM 2	THEME/PROGRAM 3
AAPP	**Antarctica's Influence on Climate and Sea Level:** analysis of glacial ice cores to provide records of past climate and radiative forcing; dynamics and vulnerability of East Antarctic ice shelves (within the AAT); persistent biases in climate models arising from inadequate representation of clouds and aerosols	**Nature and Impacts of Southern Ocean Change:** how and why the physical and biogeochemical environment of the Southern Ocean adjacent to the AAT is changing and assess the impacts of change on climate, sea level, sea ice and marine ecosystems	**Future of Antarctic Sea Ice, Krill and Ecosystems:** field-based, remote-sensing and laboratory studies as well as numerical modelling and its analysis for reliable projections of change in the AAT's sea-ice zone and its impacts on climate, ice shelves and marine ecosystems
ACEAS	**Circum Antarctic and East Antarctic:** better understand shifts in carbon dioxide, heat, and moisture transport in the Antarctic and Southern Ocean to improve projections of future climate and sea level changes	**Regional East Antarctica and its provinces:** links between atmosphere, ocean, cryosphere, and their effects on East Antarctica's open water and under-ice biogeochemistry and ecology under past, present, and future conditions	**Sub-regional and Regional Antarctic Margins:** risk to our communities of ice mass loss from key subglacial basins over the next decades to centuries, and consequences for the East Antarctic ocean and ecosystem
SAEF	**Climate Process and Change:** integrate knowledge from ice sheet reconstructions, satellite observations, meteorological field measurements, and high-resolution climate proxies from Antarctica and the sub-Antarctic islands	**Biodiversity Status and Trends:** Using downscaled climate and environmental information; novel biodiversity and genomic data; and integrated biological and geochemical proxies	**Supporting Environmental Stewardship:** develop bespoke decision support tools to identify conservation priorities and strategies in the face of alternative environmental and political futures