

Research Management Expertise: The Missing Link in Establishing a New Antarctic Science Platform

¹Caroline Pratt & ²Melissa Climo

¹Antarctica New Zealand

²Bridger Consulting Ltd

1. Please tell us about the research enterprise, and your role in it. What was the situation/project; what were the challenges that were faced; what was your role in it; and why did you do what you did

New Zealand's Antarctic Science Platform (ASP) commenced in 2018. This seven-year, Government-funded (\$49M) research programme supports interdisciplinary physical and biological science, peer-reviewed by international experts with a mandate is to deliver knowledge to demonstrate NZs commitment to the Paris Agreement. The Platform is large and complex—involving over 100 researchers from ten organisations. The leadership structure is an interconnected web of experienced science leaders, advised by an international science panel, a Kāhui Māori (Māori advisory group) and an independent Steering Group. Antarctic research is expensive, inherently risky and hardly ever runs to time schedule, so continuous change to milestones and delivery must be planned for and managed.

Yet until 2019, Antarctica New Zealand, the ASP's host organisation, had not previously hosted a major research investment and is not a research provider organisation. This research management skills gap was the key challenge to overcome.

Antarctica New Zealand is primarily a logistics organisation—an essential co-funder (enabler) of Antarctic science, coordinating movement of all personnel and equipment to and from Antarctica. Their Science team, along with guidance from partnering research organisations (i.e. the researchers and their research managers), designed and delivered the successful ASP research proposal.

The pivotal Platform Manager role (Melissa Climo: Jan-Sept 2019, and Caroline Pratt: Aug 2019-ongoing) was essential however, to move the Antarctic Science Platform from a successful proposal to being fully operational.

"We would have been lost without experienced research managers guiding us and bridging between science organisations, funders and the corporate tasks necessary to operate such a complex research programme."

Prof Nancy Bertler, Director, Antarctic Science Platform

2. How did you add value, improve outcomes and/or otherwise positively impact the research enterprise? How was this impact measured?

Within an established research organisation (e.g. university, research institute), research management knowledge is institutionalised. Systems and processes exist as a foundation to build on, adapt and/or scale-up to suit the research programme. As this was not the case for the ASP, key activities included:

- Design, establishment and ongoing operation of all processes, systems, policies and templates: financial management, research monitoring, reporting, research

contracting, contestable funding rounds, communication, and the management of data, intellectual property and records.

- Development and implementation of engagement and communication strategies, including branding, website and collateral.
- Establishing governance and management frameworks, including terms of reference, collaboration agreements and sound internal reporting processes.

The full-time Platform Manager role has been a catalyst for ensuring best practice in research management. Impact is evident in the (mostly!) smooth running of the ASP.

Because the research management systems were established quickly and are robust, the ASP is able to act with speed (e.g. prompt contracting with lead research organisations) and diversify to add value (e.g. a new national Modelling Hub was conceived, designed and recruited in under six months). New collaborations include a Kāhui Māori to provide guidance in Mātauranga Māori (Māori knowledge), and collaboration with the supercomputing provider, NZ eScience Infrastructure (NeSI).

The impact of strong research management systems has also been evident in the ASP's response to COVID. Only essential Antarctic field research will be supported in the 2020-21 summer, causing at least a one-year delay to many research activities. Yet, strong relationships, robust systems and clear contract clauses mean the ASP can be agile in research renegotiation.

3. Who were the key stakeholders in the research enterprise and how did you work with them to achieve a common goal?

The ASP was built collectively by New Zealand's Antarctic science community, and future delivery and success relies on continued strong collaboration.

Establishing the ASP has meant successfully navigating a large network of internal and external stakeholders, all with different expectations of what 'success' looks like, although most stakeholders are committed to any research which assists with the mitigation of climate change. The Platform Manager(s) have had to establish systems, bring the stakeholders along for the ride, and ensure ongoing productive interactions across all of these teams/ groups/ stakeholders.

Internally, this meant working closely with Antarctica New Zealand staff to learn the existing internal systems, rapidly upskill staff on research management needs, and work together to implement changes and compromises.

"I have deepened my appreciation of the inner workings of research organisations' fiscal management and funding agency expectations through my interactions with the Platform Manager."

Angela Lee, Finance Controller, Antarctica New Zealand

The Platform Manager's primary focus is to ensure the ASP's success. Therefore, the design and implementation of research management systems (e.g. reporting timelines, contracting approach, document management) often puts science and researcher needs before Antarctica NZ (host) internal procedures. Key to navigating these differing expectations has been (i) building positive and productive relationships, (ii) always showing the value of good research management, and (iii) open communication.

The Platform Manager(s) have also kept a strong focus on relationships and good communication with external stakeholders also (e.g. research providers, government funders, Steering Group, advisory groups). These stakeholders' needs were considered in the establishment and operation of the ASP's research management systems.

4. *What lessons did you learn that you would like to share with your fellow research managers?*

Setting up a new research management system is challenging. The skillset for this type of leadership includes the ability to quickly establish good working relationships, work across teams to achieve "big" goals by adding value wherever possible, and to identify and act on opportunities.

*He aha te mea nui o te ao. He tāngata, he tāngata, he tāngata
What is the most important thing in the world? The people, the people, the people.*

- i. **Relationships are key.** Flex your interpersonal muscles every day and seek strong, mutually-beneficial relationships. Be honest. Listen. Seek win:win.
- ii. **Trust your expertise.** Believe in your skills. Share your knowledge. Determine where you can flex and where you need to hold your ground to ensure success.
- iii. **Keep learning.** Treat every experience, especially the difficult situations, as learning opportunities.
- iv. **Easy is not best.** Use your past experience as a starting point, but don't assume the systems and processes are fit-for purpose. Be open to new ideas. Diverse perspectives make stronger products.
- v. **Design for success.** The research management system must predict future needs, to be effective. Seek advice, gather data, always ask questions.
- vi. **Persevere.** Achieving complex, high risk science requires patience, commitment and team work... so does professional research management.