



Developing the Aotearoa New Zealand Aerospace Strategy

Submission form



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Submission on developing the Aotearoa New Zealand Aerospace Strategy

Your name and organisation

Name	Michelle Polglase
Organisation (if applicable)	Kiwi Innovation Network (KiwiNet)

Overview of the Aerospace Strategy

- Question 1:** Do the four areas above provide the right basis for the Aerospace Strategy?
- Question 2:** What are the critical factors that you see for aerospace sector development?
- Question 3:** How would an Aerospace Strategy help you?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Detailing the current aerospace sector activities and setting out a 2030 future state vision provides a strong starting point for an aspirational aerospace strategy. The foundational three pillars of Unlocking Aerospace Potential, Future-Facing Government, and Aerospace Nation that underpin this strategy provide a solid reference framework. With clear goals, and most importantly a comprehensive action plan, Aotearoa New Zealand can build on our natural geographic advantages and the success to date of private companies to develop a thriving aerospace nation.

Critical factors for aerospace sector development include capability development, funding and resourcing of research and development (R&D), collaboration (both nationally and internationally), and the showcasing of sector success stories to actively support the development of an inclusive and diverse aerospace ecosystem. An example of capability development would be identifying emerging research talent (such as an aerospace engineering research student project), providing commercialisation support (market validation, mentoring and professional industry connections) and identifying protectable IP. Funding and commercialisation support would empower the researcher to proceed with the project, protect IP, create an MVP (minimum viable product) and connect with an industry partner to ascertain potential market opportunity to reach the first milestone of a startup, spinout or licensing deal. The second milestone would be to develop the MVP to a state of investment readiness for the next level of ecosystem support, such as within a Callaghan-funded Deep Tech incubator.

As a Commercialisation Manager with KiwiNet, my role is to support the commercialisation of research within our Commercial Partner Network (CPN), consisting of 18 Universities and Crown Research Institutes (CRIs). We build capability to turn science findings into commercially viable products. KiwiNet also administers devolved PreSeed Accelerator funding through the CPN Investment Committees.

A comprehensive aerospace strategy with dedicated resourcing and funding will support pipeline development for our future startups, spinouts and licensing deals within the sector. We have

extensive research capability within our CPN, but often researchers have highly technical and specialised skillsets. Business acumen, IP protection, an understanding of ‘industry pull’ and a framework for how to take a product or service to market are also required for successful research commercialisation. Alignment with industry – for example, future fuel green hydrogen development – will support the transition to a future 2030 state.

Area One - A strategy for building our aerospace sector

- Question 4:** Is the 2030 Future State set out in a way that enables New Zealand to build on its existing advantages to develop a leading place in the global aerospace economy?
- Question 5:** Will the 2030 Future State support your ambitions for growth and participation in the sector?
- Question 6:** What barriers are there to optimising sector growth?
- Question 7:** How could the government and the sector work together to achieve the 2030 Future State?
- Question 8:** How can the Government enable Māori ambitions for the sector?

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In general terms, the draft 2030 Future State is relatively comprehensive and captures many of our existing advantages. The opening sentence could be framed in a more powerful, aspirational way, such as “Aerospace in New Zealand is a diverse and inclusive sector that is thriving, delivering impactful solutions to a range of industry and societal challenges.”

The 2030 Future State will support our ambitions for growth and participation in the sector for research commercialisation with a clear commitment from Government to support innovation, including through regulatory frameworks. There is an opportunity for MBIE to play a key role in connecting the emerging aerospace ecosystem into the wider research, science and innovation ecosystem with foundations that already exist. Rather than setting up separate programmes, the question to ask is - how do we leverage the existing Commercial Partner Network (CPN) and Callaghan programmes?

Current barriers to optimising sector growth include a regulatory transition (risk management vs. future transport aspiration), capability building within an emerging sector, and a requirement for funding and resourcing for enablement. The Government needs to continue to collaborate and consult with key ecosystem supporters, including industry, to ensure regulators have the resources through a disruptive transition phase to achieve the 2030 Future State.

The Tawhāki Joint Venture on Kaitōrete Spit is a good example of Government enabling Māori ambition for the sector. The agreement between Te Taumutu Rūnanga and Wairewa Rūnanga and the Crown sets a strong precedent and shows commitment from Government. Government needs to first understand how its ambitions for the sector align with Māori aspirations, and then empower the emerging Aerospace sector to develop authentic relationships with appropriate Māori stakeholders by growing cultural capability. Figure Group’s Huatau platform is an exemplar resource that could be deployed as a cultural capability resource for the sector.

Area Two - Building strong foundations (Three Pillars)

Question 9: What do you think of the Three Pillars and do you think they will support the 2030 Future State?

Question 10: What else would you like to see in the Three Pillars?

Question 11: What actions and initiatives could the sector focus on to support the Three Pillars?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

The three pillars are:

1. Unlocking aerospace potential
2. Future-facing government
3. Aerospace nation

These pillars have been well developed in this consultation document. Of particular interest from a research commercialisation perspective is Pillar One, with a focus on growing this knowledge-intensive and innovative sector. Capability building, resourcing and funding at the early research stage is critical, alongside industry engagement, to enable researchers to progress their science. However, it is critical that Government does not make the mistake of creating new initiatives and programmes that duplicate what already exists. By 'plugging in' to the existing research, science and innovation ecosystem infrastructure such as the Commercial Partner Network (CPN), new knowledge, technology and capabilities to add value to the emerging sector will come from a range of unforeseen parts of the R&D landscape. Extra resource to support the existing ecosystem will amplify impact.

The transition to the 2030 future state will be the biggest challenge, including social licence. As an attendee at the inaugural Aerospace Summit in Ōtautahi, Christchurch it was inspirational to hear from a broad range of ecosystem participants including founders, investors and policy makers. Ethics, sustainability and diversity conversations are essential as we continue to develop an aerospace narrative that is inclusive, with a clear commercial pathway to industry. General public education is required to ensure social licence and acceptance of an aerospace nation.

KiwiNet will continue to support the research and science commercialisation journey through the CPN and through any relevant initiatives that raise the aerospace sector profile. A sector focus could enable the development of an innovation pipeline to fuel the 2030 vision.

Area Three - Goals for 2030

Question 12: What do you think of the Goals for 2030?

Question 13: Are the goals framed in a way that will enable New Zealand to build on its strengths and comparative advantages to achieve the 2030 Future State?

Question 14: What activities and milestones can help us achieve these Goals?

Question 15: Where do you see yourself in realising these Goals?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

2030 is drawing closer, and we have a lot to do to transition to the 2030 future state. The goals below are ambitious:

1. Build a sustainable air passenger journey
2. Safely integrate all forms of autonomous aerial vehicles
3. At the forefront of global sustainable space activities
4. Actively support a permanent human presence in space
5. Critical decision-making made easy through aerospace-enabled data, tools and applications

As a recreational pilot, I have a keen personal interest in Aotearoa, New Zealand building a sustainable air passenger journey and safely integrating all forms of UAV's, and this will need to be driven by regulatory changes. (Goals 1 and 2)

Aotearoa New Zealand is already working on Goal 5, with launch capability from Mahia Peninsula with Rocket Lab and the enablement of satellite data, the MethaneSAT mission collaboration and other initiatives. Private companies like Kea Aerospace and Dawn Aerospace are developing sustainable space activities utilising solar power and reusable space planes (Goal 4). We need to share our success stories and empower the innovation ecosystem with resources and funding for increased impact.

There is an opportunity for enhanced research commercialisation activity, particularly with Government commitment to resources and funding. As an example, the Government could set Aerospace as one of the new National Research Priorities (NRPs), and earmark funding and ecosystem support for this.

Area Four - Pathway to the 2030 Future State

Question 16: What policies, ideas, actions, and/or initiatives would you like to see in the Action Plan to help achieve the ambitious 2030 Future State?

Question 17: What would be the benefits of these actions and how would they help grow the New Zealand aerospace sector?

Question 18: How would you like to be involved in the delivery of the Aerospace Strategy?

Please type your submission below. If applicable, please indicate the question(s) to which you are responding.

Setting Aerospace as one of the new National Research Priorities (NRPs), and earmarking funding and ecosystem support for this would be the first step to achieving the ambitious 2030 Future State.

Fostering collaboration within the sector, with MBIE 'plugging in' to the existing research, science and innovation ecosystem infrastructure such as the Commercial Partner Network (CPN) is also key to success. Collectively we need to ensure 'industry pull' with market-led innovation of research for positive impact within the sector. We also need to empower the emerging Aerospace sector to develop authentic relationships with appropriate Māori stakeholders by growing cultural capability.

The benefits of these actions would support a diverse, inclusive and effective aerospace ecosystem utilising the strengths of the existing CPN to transition to the 2030 Future State. As a member of this network supporting research commercialisation, KiwiNet could play a key role in the delivery of the Aerospace strategy.