

Submission on developing the Aotearoa New Zealand Aerospace Strategy

Your name and organisation

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Organisation (if applicable)	SpaceBase Limited

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.

1. The four areas above are clear for defining and executing on the Aerospace Strategy plans.
2. Critical areas include political will with accompanying funding to execute; aggressive capacity building programs for talent generation, and specific support for startups in the sector without competing with other industries for the same funding source.
3. SpaceBase was founded to support catalysing and growing the space industry in New Zealand. Having clear specific goals and focus will help us plan and direct our efforts towards official NZ aerospace goals for 2030.

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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5. Yes, but we believe some of the future state descriptions need to describe better what NZ is capable of doing such as:
 - Including leading the world in “sustainable” disruptive tech
 - That the industry not only actively contributes to improving the environment but actively mitigates and solve environmental challenges through space technologies
 - Technology development is not only hardware but also software
6. Capacity building has started through new pathways in education (e.g. new degrees and courses) but more needs to be done on different levels of the educational system. The lack of dedicated funding in the sector is slowing down the pace of growth compared to other countries, such as Australia, which is seeding the industry with much needed funding resources.
In addition, where NZSA sits in government decision making (under a Ministry) and not having dedicated funding is slowing down the pace for development and faster implementation of initiatives. As an example, the Philippine Space Agency (PhilSA) is directly underneath the Office of the President with a Space Council represented by different ministers. In only two years it has accelerated current programs and initiatives and has outpaced NZ growth in our humble opinion.
7. Because we are already seeing some unhealthy competition within the different NZ regions, we believe national govt needs to play a neutral role of creating a collaborative industry consortium with the needed support at a national level that will help establish partnerships within the sector,
8. Creating incentives for Māori participation (e.g., grants, briefings, dedicated educational programmes) in the industry.

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?

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9. The three pillars contribute to the goals of the 2030 future state. "Unlocking aerospace potential" offers opportunities to support the industry. "Future-facing government" could allow lower levels of government to be early customers for new aerospace companies. "Aerospace nation" has positive messages, but it is not clear how that pillar translates into actions.
10. It is clear how the government could act to support the first two pillars, but it is not clear how the government will support the "Aerospace nation" pillar.
11. A great deal of the positive implementation of these objectives will occur down at the working levels of government. If the government employees who are closest to problems and government needs are empowered to act, then NZ could benefit from an agile progressive government. Government would also need to tolerate failures in small experimental projects, but the iteration cycle could be much faster than in other countries.

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?

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12. Please refer to our strategy response submitted April 2022. Our feedback still applies.

13. Reiterating that we think Goal 3 should be worded more strongly for NZ to be THE leader in sustainable space and that Goal 4 needs to be focused on a certain area of human space flight activities.

14. Please refer to our strategy response submitted April 2022

15. We had recommended several initiatives in our April response but wanted to reiterate SpaceBase role in enabling capacity building that would lead to entrepreneurs and existing adjacent industry players to engage in the five goal areas through education and outreach, from post-secondary to executive/professional levels.

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?

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16. Please refer to our April 2022 submission. In addition, creating a national industry association that would foster industry and govt collaboration would be critical in harnessing the potential of the industry. Creating a space fund for pre-seed space startups as well as the creation of a national R&D facility will accelerate technology development that would benefit everyone in the sector.

The creation of policies and regulations that would further space sustainability practices that the rest of the world could emulate.

Modifying the educational NZ system to require STEM courses in primary and secondary levels to be at par with top educational systems around the world

17. These support infrastructure, funding, and industry consortium will help accelerate the growth of the industry many fold compared otherwise the growth and development of the sector will not reach the desired outcome for 2030.

18. SpaceBase capacity building goals is aligned with the NZ Aerospace Strategy and we would like to be involved as consultants, educators, mentors, and program/project delivery enablers in this exciting industry.