

Submission on developing the Aotearoa New Zealand Aerospace Strategy

Your name and organisation

Name	Dr Illia Chyrva
Organisation (if applicable)	Syos Aerospace/ independent consulting engineer

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.

Q1. Yes, four areas provide a right basis for the Aerospace Strategy.

1. A strategy for building the sector may include a register of aerospace companies by sectors (Space, crewed crafts, uncrewed crafts, registered components suppliers etc...).

Q2: The aerospace industry is a high rewarding, high risk industry. There are several critical factors for the development of the industry:

- 1) Market for a product
There is no reason to develop a product without available market. It is especially true in a very competitive aerospace industry.
- 2) Research institutes and accessibility of research facilities and equipment.
In my opinion there is a good base a research and development (University of Auckland, University of Canterbury etc...).
- 3) Regulations.
The regulation process must be well defined.
- 4) Access to the funds.
The support from the government must be available with clear path to obtain the funds (luckily New Zealand is one of the best countries for a start-up)
- 5) Access to the world talents.
Talented people are the key of success in every company

Q3 I'm aeronautical design engineer, PhD. I spent my whole life working with flying machines. I'm pleased to see a development of aerospace industry in New Zealand. The more companies are working in aerospace sector in New Zealand the higher is a demand on my skills in New Zealand.

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?

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

Q4 To determine the Future State the existing advantages of New Zealand for the aerospace industry must be well defined. These advantages could be:

- 1) a remote location with sparsely populated area
- 2) Access to a variety of weather conditions within the same region
- 3) Industry friendly, open, and non-corrupted government that supports companies
- 4) Open and simple regulatory and taxation system that supports research and development
- 5) Supportive community and presence of forums and meet ups

Q5 Yes, they will

Q6

1) People. As I wrote before the company consists of people. Therefore: 1) New Zealand must grow their own talents for aerospace industry. The process has already started but the talents must be supported and motivated to work in New Zealand. 2) Invite talented people from overseas. The Green list immigration process is a first step. However, this list missed on Academics. The business migrants are very well supported in New Zealand.

2) Regulations. Regulations must be well defined, and the certification process must be fast. Every start-up is battling against the time. If the rules are straight forward (product certification, flight permission etc...) and the turnaround time is fast more companies will survive the start-up stage.

3) Resources and supply chain

Q7 I mentioned it in Q6

- 1) Clear rules and fast tracked permission and certification application
- 2) Sponsor research institutes and talented students
- 3) Research and development grants
- 4) Make an attractive immigration policy for talented people from overseas

Q8 Incorporate Māori in the educational, research and development process. On my example the passion for the aviation starts from a childhood. It must be prestigious to participate in a RC modelling, rocket, flight clubs and other aerospace activities...

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.

Q9

Q10

Q11

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.

Q12 I think the goals represent a general direction of a development of aerospace sector in the world

Q13 Goal three and four. The location of New Zealand doesn't allow the most economical launch. The most economical launch would be performed from equator.

Goal five should be supported by aeronautical community. It is very important to share the knowledge, but it may require the transformation of start-up community where intellectual property plays very important role.

Q14 1) Create dedicated research institutes

2) Government supported incubators with clear rules

3) Development of safe test environment

4) Development of clear aviation rules with a fast certification track.

Q15 Goal one and two are the most appealing to me. I participated in the sustainable drone development. Moreover, I performed feasibility research on hydrogen and electric powered airplane for regional transportation.

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.

Q16

Q17

Q18 Research and development in aeronautical engineering is the area of my expertise. I can support government in technical side of the policy writing regarding the aeronautical industry. I can also support the research in feasibility of the product from engineering point of view.