## Submission form

## New Zealand Space Policy Review Consultation

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### How to make a submission

The space policy review consultation is an opportunity to share your interests in space and views on the values and policy objectives that underpin New Zealand's space activities and engagements.

You can make a submission either though this form or the survey linked below.

Submissions close by **31 October 2022**.

#### **Submission form**

This submission form can be accessed via the MBIE consultation portal at www.mbie.govt.nz/haveyour-say/new-zealand-space-policy-review. To make a submission through this form you will need to:

- 1. Fill out the **submitter information** page within this document, including your name, email address, phone number and organisation. If you are representing an organisation, please ensure you have the authority to represent its views.
- **2.** Fill out your **responses to the questions** within this document. You can answer any or all of these questions.
- 3. Please send this submission form either:
  - Via email: to spacepolicyreview@mbie.govt.nz; or
  - <u>Via post:</u> to: Space Policy Review, Ministry of Business, Innovation and Employment, PO Box 1473, Wellington 6140.

#### Submission survey

Alternatively, you can complete a submission on the same questions within this form using the following link: <u>https://www.research.net/r/spacepolicyreview</u>

### How feedback will be used

Your feedback will be collated into a summary of feedback report. This will assist the New Zealand government to create or amend space policies and to look at:

- *Creating a National Space Policy*: a document which outlines New Zealand's values and objectives on space, including for our international partners.
- Articulating New Zealand's broad interests on space across multiple activities and engagements: including at United Nations fora and with international space and security partners.
- *Developing future space strategies, policies and regulatory changes*: including adjusting our policies and regulations to meet advancements in space technology.
- *Future engagement on space policy with the New Zealand public*: including on any key areas of interest identified through the consultation.

*Considering whether any legislative changes are required* to the Outer Space and High-altitude Activities Act 2017.

MBIE has commissioned PublicVoice to produce a summary of feedback report on the space policy review consultation. PublicVoice will collate all submissions, and other feedback received through the course of the consultation.

All feedback from the space policy review consultation will be collated by PublicVoice for the purposes of producing a summary of feedback report. MBIE will upload the summary of feedback report onto the MBIE website, and may also upload PDF copies of submissions received to MBIE's website in due course.

#### **Private information**

The *Privacy Act 2020* establishes certain principles with respect to the collection, use and disclosure of information about individuals by various agencies, including MBIE.

Any personal information you supply to MBIE in the course of making a submission will be used in the collation of feedback on the space policy review consultation, to facilitate the purposes outlined in the "how my feedback will be used" section above.

#### **Release of information**

Submissions remain subject to requests under the *Official Information Act 1982* and MBIE will consider you to have consented to the release of your submission in full, unless you clearly specify otherwise.

Release of your submission will include releasing your name in a list of submitters in the report, and as part of uploading submissions in due course to the MBIE website – www.mbie.govt.nz, and in the event of a request under the Official Information Act 1982.

If you do <u>not</u> wish for certain information in your submission to be released, please tick the relevant boxes on the next page and outline which parts you consider should be withheld, together with the reasons for withholding the information.

MBIE will take such objections into account and will consult with submitters when responding to requests under the *Official Information Act 1982*.

### **Submitter information**

#### About you

Name:	Angela Woodward
Email address:	privacy of natural persons
Are you making	this submission on behalf of a business or organisation?
□ Yes	🖂 No
<u>If yes</u> , please tell u	us the title of your company/organisation.
Would you like	to be kept informed of the outcome of the Space Policy Review?
🖾 Yes	
Are you happy f	or MBIE to contact you if we have questions about your submission?
🛛 Yes	
Release of infor	mation
	k this box if you do <u>not</u> wish your name and contact details above to be included in nation about submissions that MBIE may publish.
	k this box if there is other information within your submission that you want to be

kept confidential. If you have ticked this box, please state your reasons and grounds under the Official Information Act 1982 below, for consideration by MBIE.

Note: I consent to my name and the content of my submission to be made public under the OIA, but I do not consent to my private email address being released.

### Section 1: New Zealand interests in space

New Zealand's association with space goes back centuries – the first Māori explorers navigated by the stars to Aotearoa New Zealand, and centuries later they were followed by European navigators whose instruments also looked to the stars. Today, our modern navigation systems are still guided from space.

New Zealanders rely on space assets to do everyday tasks, like banking, transporting goods, travelling by air, and talking with each other. As the world becomes more connected and digitised, our reliance on space to support our daily lives is only going to increase.

The New Zealand government pursues a range of cross-cutting interests in space – including economic development, national security, regulation, international relations, and environmental interests. These interests are often articulated in broader government policies, strategies and assessments and inform our approach to space policy interests.

#### Question 1. What are your interests and relationship to space? (Pick as many as apply below)

General interest in space	Work in the New Zealand space sector	Cultural connections to space	Academic involvement on space issues	Other (please explain in box below)
$\boxtimes$			$\boxtimes$	

Please note any other interests and relationship to space below that you would like to share.

I am Public International Law expert, specialising in Arms Control and Disarmament.

I hold a University Diploma in International Nuclear Law (Très Bien) from the University of Montpellier 1/OECD Nuclear Energy Agency, France, an LLM in Public International Law (Merit) and a Postgraduate Certificate in Higher Education from the London School of Economics and Political Science, University of London, a BA (Honours) in Political Science and an LLB from the University of Canterbury, New Zealand, and He Papa Tikanga, NZ Certificate in Tikanga (Mātauranga Māori) from Te Wānanga o Aotearoa.

I am Ngāi Tahu and Ngāti Kahungunu.

### Section 2: New Zealand values in space

New Zealand's values speak to who we are as a nation and how we act in the world. The following are values that the New Zealand government aims to reflect and promote through space activities, engagements and the use of space technologies. These values are informed by the concept of kaitiakitanga (guardianship) as a guiding framework to ensure that space, and its benefits, remain accessible for all.

- Innovation We value innovation, science, and technology as means of advancing our knowledge about the universe, driving productivity in the economy and improving the wellbeing of New Zealanders. We also want to encourage innovation which is responsible, enables New Zealand to be a good steward of the environment, and enables collaboration with companies and other governments.
- Responsibility Space is a unique domain which is shared by all states. We act responsibly to promote
  a peaceful, stable, and secure space environment and to inform responsible behaviours on Earth. This
  includes acting in accordance with the principles in the Outer Space Treaty and other international
  agreements and arrangements applicable to space, as well as New Zealand's domestic law and
  policies. We also seek to influence the development of new international instruments, and develop
  norms and standards with like-minded countries, where there are gaps.
- **Stewardship** Space offers a unique perspective that is crucial for understanding our environment, including to fight climate change, and better manage our natural resources. At the same time, we take care to act sustainably in space and on Earth to preserve the benefits of these environments for future generations.
- Partnership We are better when we work together. Participation, Partnership, and Protection are key principles of Te Tiriti o Waitangi and we want to continue to engage with Māori on New Zealand's space activities and engagements. The government works alongside New Zealanders and the space sector in developing policy and regulations that impact them; collaborates with international partners on economic, security and other interests; and within international institutions to promote New Zealand's values.

## Question 2. To what extent do you agree or disagree that these values should apply to New Zealand's space activities and engagements?

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
Innovation				$\boxtimes$		
Responsibility					$\boxtimes$	

Stewardship			$\boxtimes$	
Partnership		$\boxtimes$		

### Question 3. Are there any other values, or aspects of kaitiakitanga (guardianship), that you think should apply to New Zealand's space activities and engagements (for example, cultural values regarding space).

Aotearoa New Zealand's space policy should explicitly recognise and reference the country's commitment to the peaceful uses of space, which are enshrined in the corpus of international space law that Aotearoa New Zealand has adhered to, beginning with UN General Assembly Resolution 1962 (XVIII) of 13 December 1963, specifically operative paragraph 1 "The exploration and use of outer space shall be carried on for the benefit and in the interests of all mankind." and operative paragraph 4 "The activities of States in the exploration and use of outer space shall be carried out in accordance with international law, including the Charter of the United Nations, in the interest of maintaining international peace and security and promoting international cooperation and understanding."

Aotearoa New Zealand's space policy should also explicitly recognise and reference the country's nonproliferation and disarmament commitments at international law and in its domestic legislation.

### Section 3: New Zealand's space policy objectives

The New Zealand government supports a range of interests in space (economic, environmental, international, national security and regulatory) by pursuing the following key policy objectives:

- Growing an innovative and inclusive space sector
- Modelling sustainable space and Earth environments
- Promoting the responsible uses of space internationally
- Protecting and advancing our national security and economic interests
- Regulating to ensure space activities are safe and secure

#### Question 4. Are any of these key policy objectives of particular importance to you?

I am interested in Aotearoa New Zealand ensuring that it promotes the responsible uses of space internationally, protects and advances the country's national security and economic interests, and regulates to ensure space activities are safe and secure.

These policy objectives can, in part, be achieved by Aotearoa New Zealand complying with its international law obligations and associated domestic implementing law; actively contributing to the further development of international measures for the peaceful uses of outer space; and ensuring that its domestic law effectively implements all of its obligations under international law and tikanga.

### Section 3a: Growing an innovative and inclusive space sector

#### OBJECTIVES

The New Zealand government supports the growth of an innovative and inclusive space sector. This means:

- Promoting New Zealand's natural advantage for conducting space activities, and research and development expertise across the space value chain
- Partnering within New Zealand and internationally to increase research and development capabilities
- Identifying opportunities to increase diversity in the space sector
- Using cutting-edge space technology and space sourced data to support New Zealand's values and interests

Question 5. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to grow an innovative and inclusive space sector?

### a. Promoting New Zealand's natural advantage for conducting space activities, and research and development expertise across the space value chain

Strongly disagree	Disagree		Agree	Strongly Agree	Don't know
			$\boxtimes$		

b. Partnering within New Zealand and internationally to increase research and development capabilities

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
			$\boxtimes$		

c. Identifying opportunities to increase diversity in the space sector

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

d. Using cutting-edge space technology and space sourced data to support New Zealand's values and interests r Identifying opportunities to increase diversity in the space sector

Strongly disagree	Disagree		Agree	Strongly Agree	Don't know
			$\boxtimes$		

### Question 6. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Aotearoa New Zealand could also helpfully investigate opportunities to partner with non-traditional space nations on peaceful space technologies and to embrace indigenous cultural principles to advance the peaceful uses of space, in order to achieve innovation and diversity.

Question 7. Are there any other policy objectives that you think would help the New Zealand government to grow an innovative and inclusive space sector?

### Question 8. Do you have any questions or comments about what these objectives would mean in practice?

### Section 3b: Modelling sustainable space and Earth environments

#### OBJECTIVES

The New Zealand government advocates for the sustainable use of space to ensure its benefits remain available to future generations. At the same time we seek to use space, and space technologies, to gain understanding and better protect our environment on Earth. Specifically this means:

- Encouraging inclusive, sustainable space collaborations within New Zealand
- Assessing the cumulative impact of space activities on the Earth environment
- Assisting with solving sustainability challenges through space data, including to better monitor or understand the Earth's environment
- Investing in New Zealand's capability to retain, grow, access and use sustainable space technologies

## Question 9. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to model sustainable space and Earth environments?

#### a. Encouraging inclusive, sustainable space collaborations within New Zealand

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
			$\boxtimes$		

#### b. Assessing the cumulative impact of space activities on the Earth environment

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
			$\boxtimes$		

### c. Assisting with solving sustainability challenges through space data, including to better monitor or understand the Earth's environment

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

#### d. Investing in New Zealand's capability to retain, grow, access and use sustainable space technologies

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

## Question 10. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Question 11. Are there any other policy objectives that you think would help the New Zealand government to model sustainable space and Earth environments?

Question 12. Do you have any questions or comments about what these objectives would mean in practice?

### Section 3c: Promoting the responsible uses of space internationally

#### **OBJECTIVES**

The New Zealand government promotes the responsible use of space internationally. This means:

- Advocating for effective international rules, norms and standards in space
- Partnering with like-minded launch states to adopt peaceful, responsible and sustainable space practices
- Collaborating internationally to increase New Zealand's influence and capabilities in the global space sector

Question 13. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to promote the responsible uses of space internationally?

a. Advocating for effective international rules, norms and standards in space

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

b. Partnering with like-minded launch states to adopt peaceful, responsible and sustainable space practices

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

c. Collaborating internationally to increase New Zealand's influence and capabilities in the global space sector

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

## Question 14. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

These policy objectives should be explicitly tied to the principle of the peaceful uses of outer space.

Aotearoa New Zealand's diplomacy on space issues could reflect the country's commitment to a rules-based international system by seeking opportunities for consensus to achieve effective new international rules, norms and standards and space, and not only partnering with like-minded launch states on international measures.

The Aotearoa New Zealand government could helpfully engage in a meaningful and continuous partnership with a wider range of civil society individuals and groups with an interest in space technologies and activities than it has until now, particularly those with an interest in the country's compliance with its non-proliferation and disarmament obligations.

Question 15. Are there any other policy objectives that you think would help the New Zealand government to promote the responsible uses of space internationally?

## Question 16. Do you have any questions or comments about what these objectives would mean in practice?

# Section 3d: Protecting and advancing our national security and economic interests

#### **OBJECTIVES**

To sustainably grow our space sector by having due regard to our national interests we need to:

- Use space assets to protect and advance New Zealand's national security and economic interests
- Manage the broad range of security risks in space to protect New Zealand's space industry
- Collaborate with international space and security partners to pursue New Zealand's national security and economic interests

Question 17. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to protect and advance our national security and economic interests?

#### a. Use space assets to protect and advance New Zealand's national security and economic interests

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
			$\boxtimes$		

#### b. Manage the broad range of security risks in space to protect New Zealand's space industry

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
			$\boxtimes$		

### c. Collaborate with international space and security partners to pursue New Zealand's national security and economic interests

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
		$\boxtimes$			

### Question 18. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

Aotearoa New Zealand should ensure that's its space activities advance – and do not undermine -- national security. Continued involvement in the launch of dual-use military payloads for one state, which have the potential for an end use different to that which is approved in the payload launch authorisation, could undermine the country's national security. For example, there remain concerns that certain US military payloads may advance space-based US capabilities for targeting weapons, including nuclear weapons.

Question 19. Are there any other policy objectives that you think would help the New Zealand government to protect and advance our national security and economic interests?

Question 20. Do you have any questions or comments about what these objectives would mean in practice?

### Section 3e: Regulating to ensure space activities are safe and secure

#### OBJECTIVES

The New Zealand government regulates to ensure New Zealand space activities are safe and secure. This means:

- Facilitating the safe and secure use of emerging space technologies from New Zealand
- Clarifying what New Zealand space activities are inconsistent with the national interest
- Promoting and protecting New Zealand's interests through permitting space technologies

## Question 21. To what extent do you agree or disagree that these policy objectives will help the New Zealand government to ensure space activities are safe and secure through regulation?

#### a. Facilitating the safe and secure use of emerging space technologies from New Zealand

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
			$\boxtimes$		

#### b. Clarifying what New Zealand space activities are inconsistent with the national interest

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
				$\boxtimes$	

#### c. Promoting and protecting New Zealand's interests through permitting space technologies

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	Don't know
		$\boxtimes$			

## Question 22. Do you have any comments on these policy objectives (e.g. any suggested change to how they are framed)? Is there anything missing?)

## Question 23. Are there any other policy objectives that you think would help the New Zealand government with regulating to ensure space activities are safe and secure?

## Question 24. Do you have any questions or comments about what these objectives would mean in practice?

### Section 3e(i): Regulating in line with our national interests

Under the Outer Space and High-altitude Activities Act 2017, the Minister for Economic and Regional Development may decline a licence or permit if they are *not satisfied* that it is in the national interest. The Minister may take into account when considering the national interest: economic or other benefits to New Zealand; risks to national security, public safety, international relations or other national interests; risks that cannot be mitigated by conditions of the licence or permit; and any other relevant matters.

As part of policy to inform the language in the Act, Cabinet has agreed to principles that will inform the consideration of national interest for space activities, as well as what is not in New Zealand's national interests. These principles are:

- **Responsibility**: that space activities from New Zealand should be conducted with due care and in such a way as to promote an orbital environment where actors avoid causing harm or interference with the activities of others.
- **Sustainability**: New Zealand should promote sustainable space practices that preserve the benefits of space for future generations.
- **Safety**: space activities from New Zealand should be conducted in a way that does not jeopardise human safety (including the safety of people in space).
- Aligning with New Zealand's values and interests: space activity from New Zealand should uphold the policies and values supported by New Zealanders and align with broader policy settings.

The following space activities are <u>not</u> in New Zealand's interests; i.e. the Minister will not authorise space activities:

- that contribute to nuclear weapons programmes or capabilities
- with the intended end use of harming, interfering with, or destroying other spacecraft or space systems on Earth
- with the intended end use of enabling or supporting specific defence, security or intelligence operations that are contrary to government policy
- where the intended end use is likely to cause serious or irreversible harm to the environment.

## Question 25. Are there any comments you would like to make about these criteria that inform consideration of the national interest?

The current regulatory regime may not be sufficient to ensure that the government can credibly assess whether all space-launch activities comply with Aotearoa New Zealand's obligations under international law and domestic non-proliferation and disarmament legislation.

#### For example:

Certain national measures are only *recommendatory* and do not have binding effect ("Payload principles" guidelines, 2019). Payload authorisation requirements should be mandatory, through statutory regulations that can be systematically enforced and which have parliamentary oversight. Also, these binding measures concerning payload authorisation should prohibit any payload that contributes to *any* weapons system that is prohibited under Aotearoa New Zealand law, not just those concerning 'nuclear weapons programmes or capabilities', and 'contributes to' should be defined to include 'potential end-use', and not simply the 'intended use' specified on the payload licence application for dual-use technologies. This is necessary to ensure that Aotearoa New Zealand remains in compliance with its international non-proliferation and disarmament obligations and associated domestic implementing law as the launch state for military payloads with dual-use applications, and which may be launched as R&D technology and subsequently become operational technology, such is the nature of emerging and high-specification military technologies. Enforcement post-facto will be a challenge, but more attention to ongoing compliance in payload licence application reviews will prompt frank discussions with licence applicants, and reduce the potential for negligence in licence approvals.

In addition, it is questionable whether the Aotearoa New Zealand government has sufficient technical capacity to independently assess the veracity and completeness of information provided in payload licence applications, especially concerning the potential capabilities and potential end-use of equipment and technology in payload licence applications, such as those relevant to weapon systems. Aotearoa New Zealand is responsible for ensuring its compliance with its international non-proliferation and disarmament commitments, which necessitates independent assessment of applicant's information. Also, there is no separation between those responsible for the promotion of Aotearoa New Zealand's space activities and those responsible for regulating those activities, with both tasks handled within one agency (Space Agency, in the Ministry for Business, Innovation and Employment), creating a potential conflict of interest in the approval of space launches. The regulatory regime, as it relates to compliance with Aotearoa New Zealand's non-proliferation and disarmament obligations, could be strengthened by transferring responsibility for oversight of space-launch activities to the Prime Minister, who already has specific responsibilities for oversight of the country's compliance with the 1987 New Zealand Nuclear Free Zone, Disarmament and Arms Control Act. The regulatory regime for space-launch activities could also achieve greater transparency concerning compliance with non-proliferation and disarmament obligations by assigning a civilian oversight role to the Public Advisory Committee on Disarmament and Arms Control (PACDAC), which has a similar role under the 1987 Act, and for which procedures are already in place to ensure strict confidentiality of information.

#### Question 26. What questions do you have about how the national interest is considered in practice?