



Hon. Kelvin Davis
Associate Minister Education (Māori Education)
Parliament Buildings
Wellington

14 July 2022

Tēnā koe e te Rangatira, Hon Kelvin Davis,

RE: PŪHORO CHARITABLE TRUST – ONE YEAR ON

Ka tuku atu ngā mihi makuru ki a koe, e te rangatira. Next week it will be one year since Pūhoro Charitable Trust established full operations as a by Māori for Māori and with Māori organisation. We wanted to take this time to thank you, 9(2)(a) and Renee Davis for your support to enable Pūhoro Charitable Trust to improve our position to advance the aspirations of rangatahi Māori.

This letter seeks to update you on key achievements in the twelve months since the Ministry of Education partnered with Pūhoro Charitable Trust:

- The annual budget for Pūhoro Charitable Trust has increased from 9(2)(b)(ii) in June 2021 to 9(2)(b)(ii) in June 2022
- Pūhoro has established new partnerships with Te Pūkenga, Auckland University of Technology, Te Whare Wānanga o Raukawa and Waikato University and we are currently in discussions with NorthTec in Whangārei
- Rangatahi engagement has grown from 630 rangatahi in June 2021 to over 1500 in June 2022
- In 2021, almost 2 in 5 Pūhoro Year 11 students gained at least one science subject compared to 1 in 5 non-Māori students and 1 in 10 Māori students
- In 2021, Year 12 Pūhoro student science achievement was almost on par with non-Māori whilst Year 13 Pūhoro science achievement exceeded that of non-Māori
- Through formal school partnerships, Pūhoro STEMM Academy now features as a timetabled class and is therefore built into the school curriculum in over 50 schools nationwide
- Pūhoro rangatahi are four times more likely to transition to tertiary (at degree level) than other Māori school leavers
- An independent economic impact assessment found, conservatively, that the potential economic benefits of the Pūhoro STEMM Academy outweigh the economic costs by a factor above 14 to 1 for the high school programme and 16 to 1 for the tertiary programme
- At 30 June 2022 the net benefit of the Pūhoro STEMM Academy programme for Aotearoa is estimated to exceed 9(2)(b)(ii)

The Pūhoro Charitable Trust Board and its staff wish to acknowledge the support you have offered our organization to improve STEMM outcomes for rangatahi Māori.

We look forward to continuing this partnership in the years to come. E kore e ngaro, he takere waka nui.

Noho ora mai, nā

9(2)(a)

Robin Hapi (CNZM)
Co-Chair
Pūhoro Charitable Trust

9(2)(a)

Dr Jessica Hutchings
Co-Chair
Pūhoro Charitable Trust

9(2)(a)

Naomi Manu
Manahautū / CE
Pūhoro Charitable Trust



Briefing Note: Pūhoro STEMM launch event in Tai Tokerau on 21 October 2022

To:	Hon Kelvin Davis, Associate Minister of Education – (Māori Education)		
Cc:	Hon Chris Hipkins, Minister of Education		
Date:	14 October 2022	Priority:	High
Security Level:	In Confidence	METIS No:	1297754
Drafter:	Sheryl Waru	DDI:	9(2)(a)
Key Contact:	Adrienne Darrah	DDI:	044395347
Messaging seen by Communications team:	No	Round Robin:	Yes

Purpose of Report

The purpose of this paper is to provide you with a briefing and talking points for your attendance at the Pūhoro Science, Technology, Engineering, Mathematics and Mātauranga (STEMM) Academy expansion launch event in Whangārei on Friday 21 October 2022.

Summary

- Pūhoro STEMM Academy is excited to share a significant milestone and achievement for their kaupapa with you, which is their expansion of delivery into Te Tai Tokerau. You have accepted an invitation to speak at the event being held to formally announce and recognise this work.
- You have been asked to speak “freely and frankly” for approximately 5 minutes on key issues within your portfolio areas that you believe will be of relevance to rangatahi, schools and Māori. Talking points have been provided in Annex 1 to support you with this.

Proactive Release

a **agree** that the Ministry of Education release this briefing in full once it has been considered by you.

Agree / Disagree.



Suze Strowger
Acting Hautū Te Tuarongo

__/__/__



Hon Kelvin Davis
**Associate Minister of Education
(Māori Education)**

15/10/2022

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Background

1. Launched in 2016, the Pūhoro STEM Academy was established in response to low engagement of Māori in STEM related career pathways, which has led to lower numbers of Māori representation in science and technology industries in Aotearoa. Its purpose is: “to advance Māori leadership and capability to deliver a world class science community”, while its vision is: “to be the centre of excellence for science technology engineering mathematics and mātauranga capability”.
2. Pūhoro provides a kaupapa Māori approach to STEM, which recognises and blends Mātauranga Māori and Western science. Additionally, it supports rangatahi Māori with the transition from secondary school to tertiary programmes, including connections to internships, industry opportunities and employment.
3. So far to date, Pūhoro have engaged 1503 rangatahi in 54 participating schools and kura across nine regions including: Christchurch, Manawatū, South Auckland and Hawkes Bay.
4. Pūhoro was successful in securing funding from the Ministry, the Tindall Foundation and Foundation North, to expand its provision into Central and West Auckland and Te Tai Tokerau, where there are high Māori populations. Expansion has already begun in Central and West Auckland.

The Event

5. You have accepted an invitation to attend the launch event for Pūhoro STEM Academy’s expansion into Te Tai Tokerau, which marks an opportunity for Pūhoro to connect with local iwi, hapū and kura on its kaupapa. The event will be held at Terenga Paraoa Marae, Morningside, Whangārei, on Friday 21 October at 3pm. Hira Gage, Director of Education for Te Tai Tokerau from the Ministry will be attending this event with you to provide support as needed.
6. There will be an audience of approximately 75 people, with notable attendees including Willow Jean Prime, the newly elected Mayor for Whangārei Vince Cocurullo and Huhana Lyndon (Ngātiwai).
7. A draft run sheet of the event is as below:

Timing	Activity
3pm	Pōwhiri
330pm	Kapu tī
345pm	Formalities commence: <ul style="list-style-type: none">- Taura- Hon Kelvin Davis speech- Manahautū presentation- Q+A – you are not being asked to be part of this session
445pm	Networking and kai
530pm	Kua mutu

Event organisers are aware that you are only available until 430pm on the day.

8. You have been allocated a 15-minute speaking slot after 3.30pm. Pūhoro have indicated they would like you to “speak freely and frankly on key issues within your portfolio areas that you believe will be of relevance to our rangatahi, schools and Māori”. Pūhoro will provide three key questions that you could speak to on the day. At the time of writing, these questions were not available, however event organisers have advised they will provide these to your office in advance of the event. Talking points have been provided in Annex A to assist you with your speech.
9. Pūhoro have acknowledged on their invite they would like the opportunity to discuss their achievements to date and the “challenges they have faced within the education system” with you at the event. Staff would also like to give you an update on its future aspirations of Pūhoro.

Pūhoro STEMM’s achievements

10. In a recent report to the Ministry of Education, Pūhoro noted that based on current New Zealand Qualifications Authority data modelling, almost 1 in 10 Māori students gained one or more science subject qualification in 2021 and almost 1 in 5 non-Māori students gained one or more science subject qualification in 2021. However, for Pūhoro students, almost 2 in 5 gained one or more science subject qualification in 2021, almost doubling subject achievement rates of non-Māori.
11. Like many other education providers, Pūhoro faced many challenges to its delivery and learner engagement because of COVID-19. Despite this, 59% of Pūhoro Year 13 taura transitioned directly into tertiary study in Semester 1 2022 with an additional 10% currently in preparation to enter tertiary studies in either Semester 2 of 2022 or in 2023. Of these taura, 58% have chosen, or will choose a STEM pathway including, such as vet science, sport and health sciences, computer and data science and environmental sciences. A further 9% transitioned into apprenticeships/trades or preparations for the NZDF and 20% have transitioned into mahi. Additionally, 7% of taura in study have included Māori studies within their degrees and 5% of taura in mahi are working in kaupapa Māori organisations.
12. Pūhoro STEMM Academy has been nationally and internationally recognised for the work it does with rangatahi Māori. On a national level, it was the winner of two awards at the Diversity Awards 2022, including:
 - Ngā Āhuatanga o te Tiriti – the award for small to medium businesses or organisations, acknowledging an authentic and committed organisation which demonstrates from a tika and pono perspective achievements and ongoing work to reflect Te Tiriti o Waitangi, and
 - The New Zealand Supreme Award Winner – which recognises Pūhoro’s commitment to ensuring te ao Māori, tikanga and core Māori values are woven into everything it does to support Māori, its learners, and address the disproportionate under-representation of Māori in the scientific workforce.
13. At an international level, Pūhoro STEMM Academy is one of three finalists in the Global Engineering and Technology Innovation Awards 2022, to be held in November in London. This award recognises organisations who harness a truly diverse workforce or inclusive ethos, recognising the significant efforts of organisations globally that excel in their commitment to equality and inclusion across the diversity spectrum.

Additional information

14. The Ministry provides Pūhoro STEMM Academy with \$2.97m of funding over the last three, which helps to support programme delivery and activities, support for rangatahi engagement and achievement, regional growth, and research opportunities.

15. Pūhoro aligns with Ka Hikitia – Kā Hapaitia, the Māori Education Strategy, by:
- Responding to the needs of ākonga within the context of their whānau,
 - Using a te ao Māori approach to design a programme that supports whānau and ākonga to exercise their authority and agency in the education system with demonstratable high levels of achievement for Māori,
 - The Pūhoro framework is Te Takere, including the values of: Ukaipōtanga, Tūhonotanga and Ngākau Pono, and
 - Demonstrating rangatiratanga.

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Annexes

Annex 1: Talking points

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Annex 1: Talking points for the Pūhoro STEMM expansion event into Te Tai Tokerau

- I am honoured to be here today to celebrate with you all the expansion of Pūhoro in Te Tai Tokerau region. This is a significant milestone and achievement for your kaupapa, and as a kaupapa Māori approach that seeks to improve equitable access to Pūrau education along with a pathway for Māori into high-value careers.
- I would like to congratulate all of you:
 - The graduates from all regions for 2022, and
 - The Pūhoro STEMM Academy for being nationally and internationally recognised for the work you do for rangatahi Māori. I understand you were the winners of two awards at the Diversity Awards 2022:
 - Ngā Āhutatanga o te Tiriti – the award for small to medium businesses or organisations, acknowledging an authentic and committed organisation that demonstrates from a tika and pono perspective achievements and ongoing work to reflect Te Tiriti o Waitangi, and
 - The New Zealand Supreme Award Winner – Which recognises Pūhoro’s commitment to ensuring te ao Māori, tikanga and core Māori values are woven into everything it does to support Māori, its learners, and address the disproportionate under-representation of Māori in the scientific workforce.
 - In addition, Pūhoro is one of just three finalists at the Global Engineering and Technology Innovation awards 2022, to be held next month (in November) in London. This award recognises organisations who harness a truly diverse workforce or inclusive ethos, recognising the significant efforts of organisations globally that excel in their commitment to equality and inclusion across the diversity spectrum. Congratulations to you all for the recognition of the incredible work you do.
- This is despite the many struggles and complexities Pūhoro and your learners have faced because of COVID-19. I want to acknowledge and thank you for all your hard work during this time, and for the learners who were still able to achieve incredible results, despite the challenges of completing assignments and sitting exams during a very unsettling time for you all.
- And of course, the kaiako who are passionate about education and dedicated to promoting and valuing success. None of these achievements would have been possible without you.

Māori Medium and Kaupapa Māori pathways work programme

- I would now like to spend a bit of time sharing with you a key programme within my portfolio as Associate Education Minister, Māori Education, that is particularly important to me because of the opportunities it will open up for future learners like yourselves.
- The Ministry of Education is committed to integrating te reo Māori in every school across Aotearoa to ensure children growing up in Aotearoa have the ability to hear and speak te reo Māori along their education pathway.

- We know that ākonga Māori in Māori medium and Kaupapa Māori education settings achieve better outcomes than their peers in other education settings. And it is that success that I want to grow.
- I am committed to a Work Programme for Māori medium and kaupapa Māori education that will see us aim for a target of 30 percent of Māori learners participating in Māori medium / kaupapa Māori in schools and early learning services by 2040. Such growth would result in 60,000 more Māori learners, 3,500 more kaiako fluent in te reo Māori, and 250 more kura.
- Cabinet has agreed to the development of this Work Programme, which seeks to address the challenges across Māori medium and Kaupapa Māori education pathways so that our tamariki and whānau Māori can thrive and be confident in their own language and culture. This will include legislative change to ensure we create a system built with Māori, for Māori, and delivered by Māori.
- This is a change that kōhanga, kura and wānanga have fought for, and it is a change that whānau, hāpu and iwi, parents and Māori communities want. It is change that all of us in the education system and who support Māori language revitalisation can deliver together.

The role of Te Pae Roa

- The development of the Work Programme is being overseen by an independent Māori Advisory Group, Te Pae Roa. It will lead the engagement process and the subsequent development and implementation of the overall work programme, including legislation, in partnership with Māori.
- Te Pae Roa has undertaken two rounds of engagement with iwi and Maori stakeholders and has presented me with a report and recommendations following each of these two rounds of engagement.
- The first report proposes changes within the education system for Māori to exercise governance in Ara Māori (Māori medium), to support the integrity of mātauranga Māori outside of kaupapa Māori settings, and for kaupapa Māori providers to exercise governance over kaupapa Māori education settings.
- The second report was additionally informed by a workshop series with the Ministry on design options for a proposed new system and offers subsequent recommendations for legislative change. That report is currently with me and due to be considered by Cabinet before the end of the year.
- Some of Te Pae Roa's goals are:
 - Growth in the number of tamariki in kaupapa Māori education
 - An education system focused on supporting kaupapa Māori education
 - Uninterrupted kaupapa Māori pathways
 - Māori as key decision makers across kaupapa Māori education
 - Māori determining what is quality kaupapa Māori education

Conclusion

- I see Pūhoro as being aligned to the aspirations of my Work Programme through providing a kaupapa Māori approach to STEMM, which recognises and blends Mātauranga Māori and Western science. I encourage you to engage with Te Pae Roa,

if you have not already. As the independent advisor to me, it is leading all Māori and iwi engagement, and will ensure your feedback is captured as part of this Work Programme.

- Additionally, you support rangatahi Māori with the transitions from secondary school to tertiary programmes, including connections to internships, industry opportunities and employment.
- I understand that so far to date, Pūhoro has engaged 1503 rangatahi across nine regions, across 54 participating schools and kura.
- In a recent report to the Ministry of Education, I was advised that almost 1 in 10 Māori students gained one or more science subject in 2021 and almost 1 in 5 non-Māori students gained one or more science subjects in 2021 – however for Pūhoro students overall, almost 2 in 5 gained one or more science subject in 2021.
- I am proud of the success Pūhoro has achieved for our rangatahi Māori, and proud to see the growth of your organisation, including the expansion of your kaupapa into other regions over the last year, including into Tai Tokerau we are here to celebrate today.
- I look forward to seeing how Pūhoro continues with its plan to keep expanding this important kaupapa elsewhere in Aotearoa, and how you think your work can support Māori medium and Kaupapa Māori pathways.
- You are clearly a success story, and I am proud to stand alongside you today. Congratulations to each and every one of you.

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Pūhoro Charitable Trust 2022

Funding Background

Pūhoro STEMM Academy was founded in 2016 and grew to develop several strategic partnerships over time to support its kaupapa and ākonga enrolled in the programme with tutoring, scholarships, internships, and networking opportunities. One such partnership is with Our Land and Water, who sponsored 39 student interns in the summer of 2021-2022.

The Ministry of Education has been in partnership with Pūhoro since May 2021. In April 2021, Minister Davis announced \$2.97 million in funding would be provided over three years for Pūhoro STEMM Academy, to enable the kaupapa to reach 5000 students across the country. The Ministry facilitates this funding stream to Pūhoro in six monthly milestone payments totalling 9(2)(ba)(ii)

Background Information

Launched in 2016, Pūhoro STEMM Academy's kaupapa is aimed at increasing the rates of participation for Māori in Science, Technology, Engineering and Mathematics (STEM) learning areas, which in turn would help boost the rate of Māori entering STEM pathways pathways post-compulsory schooling.

Pūhoro works directly with secondary school students and their whānau across the country. It provides students and whānau with mentoring, tutoring, wānanga (experiential learning and field trips) within culturally appropriate settings to help them navigate career pathways into science and technology related industries, e.g., with internships from connections with industry partners like Our Land and Water.

Te Tai Tokerau Expansion

Pūhoro Charitable Trust launched their expansion into the Te Tai Tokerau region on 21 October 2022 in Whāngarei. This event was attended by your colleagues Associate Minister Hon Kelvin Davis, MP Willow Jean Prime and the newly elected Mayor of Whangarei, Vince Cocurullo.

The STEMM academy has experienced significant growth over the last two years and the expansion focused in, Te Tai Tokerau is due to the high concentration of Māori living in the north. Pūhoro is interested in exploring ways in which they can align kaupapa to iwi and hapū aspirations for their uri. Pūhoro kaihautu will begin school visits in Te Tai Tokerau in Term 1 of 2023.

Manawatū Wānanga 2022 – Palmerston North

(Renee Davis and Sheryl Waru were guests at this Wananga)

On 31 October 2022, the Pūhoro Charitable Trust Board hosted their Manawatū Region Term 3 wānanga at the Awapuni Events Centre in Palmerston North. Workshops were lead and supported by industry partners Fonterra and the event was attended by 120 students from Years 11 – 13.

A hands-on learning experience was provided for rangatahi through these workshops. Rangatahi used algebra to construct a solar powered car using the knowledge of 'how things work' in order to discover how to increase the efficiency of solar powered cars. The incorporation of sustainable Nutrition, Chemistry and Microbiology were also part of the activity workshops run throughout the day.

Pūhoro Graduation 2022 – Palmerston North

On November 1, 2022, at the Awapuni Events Centre in Palmerston North, Pūhoro graduated a cohort of year 13 taura. Staff from Te Pou Tuarongo were privileged to be present at such an auspicious event.

A sense of excitement pervaded the room as the graduates took their seats waiting to hear their names called out. The career pathways Taura chose to follow in 2023 were inspiring. Several of

these pathways are STEM-based, including Radiology, Paramedicine, a Bachelor of Applied Science, Accounting, and Exercise Science.

The Ministry of Education was acknowledged by Pūhoro for the support and contributions that enabled many taura to engage with STEM subjects with the support of their whanau, teachers and kaihautu. Taura spoke highly of the STEM program and their connections with their whakapapa.

Such comments were reflected in their speeches; “Not only being able to discover being Māori in the STEM space but also finding out about who we are as Māori”. “It has been an awesome learning experience” 9(2)(a) personal communication, 1 November 2022).

There are 10 Graduates Schools participating in the Manawatū region. These kura are comprised of mainstream education and Nga Kura a Iwi.

Graduation speech from Kemp Reweti (Mana Hourua) for Pūhoro.

“Here at Pūhoro we are a by Māori, for Māori with Māori kaupapa. We stand in our own mana motuhake and tino rangatiratanga and we are directed by the aspirations of our rangatahi”.

November 2022 Graduates

Pūhoro Year 13 Graduates	Wāhine	Tāne
59 Graduates	30	29

Manawatū Kura	Taura Numbers
Awatapu College	9(2)(a)
Feilding High School	7
Freyberg High School	7
Manukura	6
Otaki College	9(2)(a)
Palmerston North Boys' High School	18
Palmerston North Girls' High School	11
St Peter's College	9(2)(a)
Te Kura ā Iwi o Whakatupuranga Rua Mano	
Tu Toa	

Te Pūkenga

Te Pūkenga – the New Zealand Institute of Skills and Technology, is the umbrella organisation for all work-based training organisations, institutes of technology and polytechnics in Aotearoa.

Te Pūkenga has recently extended its partnership with Pūhoro into the Manawatū. The relationship seeks to explore how innovative education programmes and Te Tiriti partnerships within the vocational education sector can target young Māori to foster a passion for sectors where Māori have low representation. Te Pūkenga offered scholarships to those taura that were embarking on tertiary education associated with a STEM subject. There were 2 recipient winners and they were Rylee Winiata – Bachelor of Applied Science (Medical Imaging) at UCOL 2023 and Alyssa Te Wiata Bachelor of Applied Science (Medical Imaging) at UCOL 2023.

Associate Minister Hon Kelvin Davis

Hautū | Deputy Secretary: 9(2)(a)
Owner: Adrienne Darrah, 04 439 5347



RAPID RESPONSE

Drafter: Sheryl Waru
Metis Number: 1298129
Date: 18/10/2022

Request

The office is requesting a Press Release and some backpocket questions and answers to support the Minister.

Backpockets may include:

- Any risks? Has MOE always supported Pūhoro?
- Background on funding? How much funding has Pūhoro received from The Ministry (2.97M) and the Tindall foundation?
- The future of STEMM in Aotearoa? Do we have any information to support the Minister on the current state?

Ministry Response

As requested, below are some high-level Q&As and backpocket information to help support Minister Davis at the Pūhoro Science, Technology, Engineering, Mathematics and Mātauranga (STEMM) expansion event in Tai Tokerau on Friday 21 October 2022.

- *Background on funding:*

Pūhoro STEMM Academy was founded in 2016 and grew to develop several strategic partnerships over time to support its kaupapa and ākonga enrolled in the programme with tutoring, scholarships, internships, and networking opportunities. One such partnership is with Our Land and Water, who sponsored 39 student interns in the summer of 2021-2022.

The Ministry of Education has been in partnership with Pūhoro since May 2021. In April 2021, Minister Davis announced \$2.97 million in funding would be provided over three years for Pūhoro STEMM Academy, to enable the kaupapa to reach 5000 students across the country. The Ministry provides funding to Pūhoro in six monthly milestone payments of 9(2)(ba)(ii)

Additionally, Pūhoro have partnered with philanthropic organisations including the Tindall Foundation (grant amount information is not publicly available) and Foundation North 9(2)(ba)(ii) in impact funding was paid for the 2021/22 year), who have helped provide financial support to the kaupapa. Critical partnerships like these have been instrumental in support Pūhoro to expand its operations to regions like Te Tai Tokerau.

- *The future of STEMM in Aotearoa? Do we have any information to support the Minister on the current state (of STEMM)?*

In building on successes, it has achieved so far to date, Pūhoro plans to continue to expand its delivery across Aotearoa, to ensure more Māori ākonga are able to have equitable access to science and technology pathways.

It is important that young people receive a broad education including STEMM learning and the Ministry is committed to ensuring we can provide ongoing support to these learning areas and

organisations such as Pūhoro. For example, the Ministry has supported a range of STEMM initiatives including:

- learning and Mātauranga Māori,
- including Ōtara 4.0, Raranga Matihiko:
- Weaving Digital Futures,
- Mātura Matihiko: Digital Ignition,
- Tech21 Summit, Tech Week 21,
- Sir Paul Callaghan Science Academies, and
- resources on Te Kete Ipurangi.

Consideration of the place of STEMM is also an important component of the redesign of Te Marautanga o Aotearoa, which is being redesigned to reflect what Māori value and what we need to ensure our rangatahi have access to as they progress their learning journey. It is vital that our ākonga are not only able to make sense of their world, but also be critical contributors to, and creators of the world that they will live in.

The redesigned New Zealand Curriculum (NZC) will support ākonga to have knowledge and experience of using diverse communication skills, including having the ability to engage with and use a range of literacies such as te reo Māori, te reo Pākehā, technical literacies (financial, mathematical and STEMM). We know that STEMM literacies are gaining importance in a rapidly changing world where the speed at which new knowledge is created will only continue to accelerate. Our future focussed curriculum will ensure that ākonga develop the ability, strategies, and mental agility to create, learn and engage with new knowledge. To do this, the curriculum needs to ensure that higher order thinking strategies are not left to chance.

The Technology learning area in the New Zealand Curriculum (NZC) was revised in 2017 to strengthen the positioning of digital technologies in the NZC and Te Marautanga o Aotearoa and implemented through the Te Kia Takatū ā-Matihiko Digital Readiness programme through to 2020. The goal of this change was to ensure that all learners can become digitally capable individuals.

The Government's commitment to quality STEMM education is also evident through measures to build our teaching workforce. TeachNZ scholarships support an individual on their journey to becoming a teacher or kaiako, covering course fees and providing support with living costs. In 2023 priority for scholarships will be given to:

- Applicants planning to teach STEM,
- Applicants planning to teach in ECE or Secondary,
- Applicants who are Māori, Pasifika or planning to teach in bilingual or immersion settings, and
- Applicants from diverse ethnic backgrounds.

- *Are there any risks?*

Funding rates may be a topic raised on the day by Pūhoro kaimahi, given the organisation's rapid expansion over the last few years, coupled with an increase in enrolments in the kaupapa. Funding related risks for the organisation include:

- Insufficient teaching resources – Technology innovation tools may not be updated or maintained,
- Staff decrease due to no funding – Kaiako are key to keeping taura engaged and motivated to learn using a kaupapa Māori lens for ako,
- Student enrolments may decrease – Students may decide to pathway to other providers away from STEMM because they have access to resources that are applicable to their future career prospects.

Additional backpocket Q&As that may be useful for Minister Davis to have

- *What is Pūhoro STEMM Academy?*

Launched in 2016, Pūhoro STEM Academy's kaupapa is aimed at increasing the rates of participation for Māori in Science, Technology, Engineering and Mathematics (STEM) learning areas, which in turn would help boost the rate of Māori entering STEM pathways post-compulsory schooling.

Pūhoro works directly with secondary school students and their whānau across the country. It provides students and whānau with mentoring, tutoring, wānanga (experiential learning and field trips) within culturally appropriate settings to help them navigate career pathways into science and technology related industries, e.g., with internships from connections with industry partners like Our Land and Water.

- *How is Pūhoro delivery of STEM different to what ākonga may experience in schools and kura?*

The programme has its own mātauranga, its own framework called 'He Waka Eke Noa' that drives design and delivery. This framework is crafted in the form of a waka and each part of the waka sets out a specific strategic pathway guiding the programme and the direction of Pūhoro. The five strategic pathways include:

- Growth – for Pūhoro to reach and touch all Māori in Aotearoa
- Identity – By Māori, for Māori, to Māori
- Community – To grow a world class community and network of Māori STEM leaders through collectivisation, connection, and collaboration,
- Innovation – Māori transformation through innovation, research, development, and data insights
- Success – Māori succeeding as Māori.

- *Where is Pūhoro STEM Academy currently delivered?*

Pūhoro began in the Manawatū with an initial cohort of 97 year 11 students from schools across the region. The Kaupapa has now expanded across Aotearoa to include Christchurch, Hawkes Bay, Kāpiti, Manawatū/Ruapehu, Rotorua, Waikato, and the newest regions of South, West and Central Auckland and Te Tai Tokerau.

- *Why is the expansion into Te Tai Tokerau significant?*

The last two years have seen significant growth for the Pūhoro STEM academy and the expansion into Te Tai Tokerau is the obvious next step for the kaupapa, given the high concentration of Māori in the region. Te Tai Tokerau becomes the tenth region Pūhoro serves.

- *How many ākonga does Pūhoro STEM Academy support*

Pūhoro STEM notes on its website it is delivering to 1503 ākonga from 54 participating schools and kura across the country.

- *What kind of successes have ākonga achieved because of Pūhoro?*

Based on a preliminary 2022 mid-year activity report to the Ministry, Pūhoro have reported that despite the difficulties presented by COVID-19, including event cancellations, transition from kano ki te kano to online sessions:

- 38.9% Pūhoro Year 11 students gained one or more sciences subjects in 2021, compared to 19.8% non-Māori and 8.9% Māori who gained one or more sciences subjects in 2021,
- In 2021, Year 12 Pūhoro ākonga achievement was on-par or above national Māori pass rates. This is expected for taura that at year 12, are choosing to maintain a science pathway when it is not compulsory. Additionally, some Pūhoro pass rates appear to be closing the gap with non-Māori results which is a great achievement,
- Despite COVID-19 impacts and challenges, Y13 Pūhoro ākonga have remained engaged at school and in the sciences with many choosing to enter directly in tertiary study in 2022.

Draft Press Release

Associate Education (Māori Education) Minister Kelvin Davis has welcomed the expansion of Pūhoro Science, Technology, Engineering, Mathematics and Mātauranga (STEMM) Academy in Te Tai Tokerau.

Launched in 2016, Pūhoro was established in response to low engagement of Māori in STEMM related career pathways. It supports rangatahi Māori with a pathway into high-value careers, with the transition from secondary school to tertiary programmes including connections to internships, industry opportunities and employment.

“Supporting more rangatahi Māori to succeed in science, technology and innovation is not only important to this Government – it is important to us as a people, and to Aotearoa,” Minister Davis says.

“For too long the system has not served Māori well. The current under-representation of our people in the sciences, despite the skills of our tupuna in these areas, attests to this. That needs to change – and it is, thanks to the Pūhoro STEMM Academy.

“The Pūhoro way is the by Māori for Māori way. Its expansion into Tai Tokerau is a significant milestone for a kaupapa Māori approach that seeks to improve equitable access for rangatahi Māori into science and technology related pathways, that fits neatly with this Government’s approach to Māori education, as set out in Ka Hikitia – Ka Hāpaitia, the Māori Education Strategy.”

The last two years have seen significant growth for the Pūhoro STEMM Academy, having so far engaged 1503 rangatahi in 54 participating schools and kura across nine regions. The expansion into Te Tai Tokerau becomes the 10th region Pūhoro serves, made possible through funding from its critical partners including the Ministry of Education, the Tindall Foundation and Foundation North, who are invested in seeing positive engagement and outcomes for Māori in STEMM.

The Academy has been nationally and internationally recognised for its work, winning two awards at the Diversity Awards 2022, and being nominated as a finalist at the Global Engineering and Technology Innovation awards 2022, to be held in London in November.

Pūhoro’s approach is aligned to the aspirations of Minister Davis’ Māori Medium and Kaupapa Māori Pathways Programme, which is currently in development.

“The Pathways Programme is particularly important to me because of the opportunities it will open up for future learners like those from Pūhoro. We know that ākongā Māori in Māori medium and kaupapa Māori education settings achieve better outcomes than their peers in other education settings. And it is that success that I want to grow.

“Pūhoro is an example of the Pathways Programme in action. I am proud of the success it has achieved for our rangatahi Māori and congratulate it on its growth into Tai Tokerau. I look forward to its continued success in expanding its important kaupapa throughout Aotearoa.”