

Case Study 2022 DIVERSITY AWARDS NZ™



Pūhoro STEMM Academy

NGĀ ĀHUATANGA O TE TIRITI

SMALL-MEDIUM ORGANISATION WINNER



THE STORY

By addressing inequitable access for Māori learners to science, technology, engineering and mathematics (STEM), Pūhoro Charitable Trust is diversifying the STEM workforce and creating positive intergenerational impact for Māori.

Pūhoro Charitable Trust delivers the Pūhoro STEMM Academy (extra M for Mātauranga) in 48 schools throughout the country and supports more than 1500 young Māori to actively pursue STEM pathways, working with a vast range of organisations to build a diverse and inclusive pipeline of STEMM capability for Aotearoa.

Māori make up less than two per cent of the scientific workforce. Māori and Pacific youth, more than any other population group, are streamed out of science education early in secondary school, making them ineligible to continue with science at senior levels.

Founder and CEO Naomi Manu says the disproportionate representation of Māori in the scientific workforce is an issue of equitable access, not capability.

"We know that by 2030 most jobs will require some level of STEM competency so it is critically important that we address the equity gap to ensure Māori have access to an education that will equip them for the future of work," she says.

A by-Māori-for-Māori organisation, Pūhoro largely works with non-Māori organisations to disrupt the narrative that Māori youth can't participate and succeed in STEM. They set the foundation

for collaborating with partners through their Mana Ōrite agreement, a Tiriti Relationship Agreement where all parties aspire to create a future that benefits rangatahi Māori, STEM professions, and Aotearoa. Their industry partners and groups actively participate in the academy, walking alongside the youth from Year 11, through tertiary and into internships or full-time paid work.

"Young people transition into jobs that are like their parents, or their parents' social network. For some Māori, this means generations of freezing workers or labourers. The Pūhoro Academy is driven by a whānau approach and

"We ensure that our values are woven throughout our organisation and govern our behaviour."

one benefit of that is their social network expands to include mentors, leaders and friends in STEM pathways," says Naomi.

Pūhoro youth are five times more likely to transition to tertiary schooling at degree level than other Māori school leavers.

"Already Pūhoro is seeing changes in terms of equitable access to STEM education. We have young Māori on a trajectory into high value careers," says Naomi.

Pūhoro facilitates a summer research scholarship programme that has created almost 90 internship placements within STEM industry research organisations. The trust delivers workshops that support the youth to transition to work, addressing issues such as being the only Māori in a research team. Likewise, Pūhoro delivers workshops to supervisors to ensure they understand their responsibility to be good supervisors have have pathways attractive to youth.

Dr Mark Tunnicliffe of Massey University says, "As an engineer, who has come back to academia, working with the students and staff in the Pūhoro STEMM Academy has been one of the most positive learning experiences in my life."

It's also a powerful experience for staff. "Not only do staff feel honoured to be part of something that helps rangatahi reach their aspirations but they themselves feel a deep sense of belonging and ownership over the work we do," says Naomi Manu, "We ensure that our values are woven throughout our organisation and govern our behaviour."

During the establishment phase of the Pūhoro Charitable Trust, Pūhoro relied on the work of Professor Jarrod Haar, who undertook research into kaupapa Māori Human Resource Management. Pūhoro ensured that their kaupapa Māori values guided the development and implementation of employment agreements, as well as all policies and procedures (HR, finance, health and safety). This ensured that Māori cultural values and beliefs influenced design and implementation of policy and procedure.

Pūhoro provides tangihanga leave that recognises cultural responsibilities such as speaking on the paepae, leading the karanga or working behind the scenes at funerals.

All staff also have a development plan so that they can be supported to achieve their aspirations whether within Pūhoro or not. Pūhoro believes that it doesn't matter where their staff work, they will likely continue to contribute to a more equitable society.

"We recognise that staff are critical to the success of the Pūhoro kaupapa so if we look after our staff, we will be in a much stronger position to advance outcomes for rangatahi Māori," says Naomi.

THE AIM

Pūhoro Chartiable Trust aims to close the gap in Māori participation in STEM education and STEM careers by collaborating with iwi, hapū, whanau, schools, government and non-government organisations, tertiary providers and STEM industry organisations.

STRATEGIES FOR SUCCESS

- A by-Māori-for-Māori whānau approach where youth, staff and partner organisations feel a deep sense of belonging and ownership of the work they do together
- The Mana Ōrite agreement between Pūhoro and their partner organisations where all parties take responsibility for building equitable futures
- Culturally centred support and high expectations for all parties, especially the youth
- Connecting the youth and partner network to help ensure youth are 'work ready' and organisations are 'youth ready'
- Strong leadership that creates and sustains the whānau approach which results in optimal staff commitment as they are empowered to bring their whole selves to work.



RESULTS AND BENEFITS

- This collaboration will have intergenerational impact
- The Pūhoro STEMM Academy collaborates with a partner network that supports 48 schools and more than 1500 Māori youth with STEM pathways
- Pūhoro youth are five times more likely to transition to tertiary study at degree level than other Māori school leavers
- More than 70% of Pūhoro youth who participate in internship opportunities transition to post graduate studies as opposed to 14% of Māori learners overall
- There are Pūhoro rangatahi at every university and many polytechnics across the country
- All Pūhoro staff are of Māori descent
- Pūhoro staff members have been elevated to senior or leadership positions as well as completing tertiary study in STEMM
- Staff from partner organisations now work fulltime with Pūhoro

KEY LEARNING

Collaborating with industry, government and scientific groups to support Māori learners and schools is a pathway to equitable access to STEM education for Māori youth, building a diverse pipeline of STEMM capability for Aotearoa and creating positive intergenerational impact for Māori.

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