Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

A collaborative research programme between Waiwera rūnanga and Lincoln University that aims to connect, share and increase knowledge on the benefits of ecological (native) planting for scientific, economic and environmental benefits.

Lincoln University

Connect Scheme, funded for $99,660 (excl. GST) over 2 years

Wairewa rūnanga and Lincoln University wish to establish a bridging (Connect) program to partner around science and mātāuranga Māori research. This Vision Mātāuranga program will connect the people of Waiwera, with Lincoln staff and students in research and demonstration (R&D) thus sharing knowledge and developing science capability around ecology as well as Mātāuranga Māori.

This VM program will also enable important educational and training outreach, and extension. It will provide a future generation of students with postgraduate learning opportunities, work experience in 'leading –edge' research and provide 'hands-on' opportunities for students to champion issues important to Wairewa, and challenging New Zealand (and the world) today.

Research plantings will be a scientifically-validated experimental trial and will provide a novel, unique and valuable R&D resource for the local community and New Zealand. The work will inform management practices that can be implemented to improving the ecological well-being of the lake and its environs, which will also complement and inform the existing Wairewa Rūnanga Research Project, and the 2013 joint initiative between Christchurch City Council and Ngāi Tahu. The research differs however, in its use of this single-farm specific model, rather than addressing the wider catchment and lake issues.

This is an excellent chance to engage all participants: Māori, the University's scientists, students; volunteers and communities to contribute, via hands-on activities, to learn, help understand and potentially find methods to overcome challenging environmental challenges.

The program will help to investigate and verify the multiple benefits of native plant communities in the context of quantifying the 'value-adds', such as ecosystem services, social & economic opportunities in the buffer zones between reserve lands and lake.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Aotearoa Fisheries Limited: New Value-Added Developments in Fish Oils & Marine Bio-actives

Massey University

Placement Scheme, funded for $180,000 (excl. GST) over 21 months

Maori are the largest single owner of fishing quota, an asset which is primarily managed through Aotearoa Fisheries Limited (AFL). The 2010 BERL report estimated that the potential value of the Māori economy was around $37 billion. Like many Māori businesses, AFL has been successful, but is now recognising that there is an opportunity to significantly grow the business through strategic use of R&D to add value to its products and identify opportunities for new or improved products and processes.

AFL are looking to apply some of the lessons from Iceland's transformation of their fishing industry to AFL. They have commissioned a strategic review of similar options and opportunities that are available to AFL, which will be complete by September. AFL is anticipating that the results will lead it to commit to a number of significant new projects.

A hurdle in AFL's transformation is its current lack of innovation or research capability, with no committed resource in this area. It is likely that a number of the projects identified in the strategic review will require significant input from specialist scientists and technologists, at a range of levels. This Placement application is to enable AFL to access the type of expertise and capability that would usually be provided by a Director of R&D or similar internal role.

This Placement will help guide AFL in identifying the appropriate pathways to move towards the successful development of the new ventures, support AFL in engaging appropriate further scientific expertise required to implement the new processes, providing insight into the potential to develop new products and markets, and facilitating the technology transfer and upskilling of AFL staff.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Capability building in the area of high value lipids with Kono Seafood

The New Zealand Institute for Plant and Food Research Limited
Placement Scheme, funded for $180,000 (excl. GST) over 2 years

Kono is a successful grower and processor of GSM mussels, with 150 hectares of marine farms in the Marlborough Sounds of New Zealand. Kono's owners are descendants of the original Māori landowners of the Nelson Tasman region who migrated to Nelson in the early 1800s. They came from the Kāwhia, Marokopa and Taranaki regions, being of Ngāti Tama, Ngāti Rārua, Te Ātiawa and Ngāti Koata iwi.

Kono staff placed with PFR will learn the basics of lipid chemistry, experimental design, data capture, analysis and interpretation. They will also learn specialist skills (interpreting complex lipid analysis) pertinent to GSM research and other areas of interest in which PFR can offer R&D assistance. PFR staff placed within Kono will learn about Vision Mātauranga values and aspirations.

The principal outcome from this project will be to develop collaboration between PFR and Kono Seafood which enables Kono to develop the potential of its seafood and other business areas fully, for the benefit of its shareholders and New Zealand.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Exploring the potential of marae-based education: A Unitec and Te Uri O Hau Partnership

Unitec Institute of Technology
Connect Scheme, funded for $50,000 (excl. GST) over 1 year

Significant opportunity exists for the development of research supported innovations in Māori development and business entrepreneurship, education, environmental and cultural monitoring, and the use of digital technology and tools to support these activities.

Te Uri o Hau is a Northland hapu of Ngati Whatua whose area of interest is located in the Northern Kaipara region. The tribe has settled its historical grievances with the Crown and is developing the future for its people. Unitec Institute of Technology is New Zealand's largest technology institute. Unitec has more than 23,000 students studying approximately 160 vocational programmes, including communication for social change, management and marketing, community development and ICT.

Te Uri o Hau and Unitec seek to work together to develop a model for a pilot marae-based education centre (MBEC). The centre will deliver specifically designed New Zealand secondary schools curriculum (outdoor education, environmental science, Māori studies, geography, social studies, history, conservation biology) at regional marae, on a commercial basis. The work programme will provide a foundation for future collaboration centred on the establishment of the pilot MBEC. It will actively engage researchers and mātauranga (knowledge) holders to enable marae communities to compete in this market by leveraging existing human, capital, cultural and natural assets in accordance with hapū/whānau aspirations and tikanga.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

He Puna Rangahau: Kaupapa Māori Research and Development workshops

University of Waikato

Connect Scheme, funded for $100,000 (excl. GST) over 1 year

Te Kotahi Research Institute (TKRI) is based at the University of Waikato. It is a University-wide entity to support, develop and promote research for and with iwi/Māori. This Connect project is developed in collaboration with the Waikato-Tainui Research and Development College. The Institute and College will work collaboratively to bring together scholars across disciplines to support research and research development for Māori communities, organisations, whānau, hapū and iwi. This proposal focuses upon capability building in the area of developing Research capacity and capability for Māori organisations and individuals. The proposal provides for a series of research workshops, to be facilitated by senior Māori researchers, to develop capacity in Kaupapa Māori research methodology and methods and the use of Kaupapa Māori in the development and enhancement of Māori organisations, business, whānau/hapū and iwi. The Kaupapa Māori Research Series has been proposed under the Connect fund as a way to develop capability and research capacity. The workshops will provide Māori organisations with capacity development in the areas of (i) Kaupapa Māori and Methodology; (ii) Kaupapa Māori Qualitative and Quantitative approaches to Research (iii) Developing research proposals and collaborations. Each workshop will be run over 2 ½ days and will include guest presenters to provide a range of approaches to understanding the role of Kaupapa Māori in enhancing research and development processes and opportunities. The workshops will enhance the understanding of the role and significance of research in the Māori community and supporting Māori development and support networking and stronger research relationships and partnerships.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Informing tribal activity and investment through scientific reporting

Te Rūnanga o Ngāi Tahu

Placement Scheme, funded for $180,000 (excl. GST) over 2 years

Science and innovation will play a critical role in the realisation of Ngāi Tahu economic, cultural and environmental goals and aspirations for the iwi and its constituent papatipu rūnanga. A key component of the Ngai Tahu's Research and Development Strategy is the development of a State of the Nation information resource on the iwi, it's whanau, and their aspirations for the purpose of directing R&D, investment and resources.

There is considerable rhetoric and myth regarding Maori deprivation, well-being and needs. Further Maori are not a homogenous population that can be characterised by broad-brush statements. TRoNT require evidence-based knowledge and monitoring to have the confidence to invest in Ngai Tahu-relevant research and development opportunities. This is key to developing a respect and demand for robust research.

Data is currently available from government agencies such as StatisticsNZ, Ministry of Education, MBIE and Ministry of Social Development. Datasets such as Census and Te Kupenga have been welcomed and well-utilised. The potential to better utilise existing datasets can been seen. The objective of this work programme is to secure statistical expertise from the Centre of Methods and Policy Application in the Social Sciences (COMPASS) at the University of Auckland to assist TRoNT staff to develop this information base.

The outcome of the work programme will be a pathway to develop a Ngai Tahu State of the Nation information resource providing an evidence base for policy, programme development, resource allocation and investment. As well as directing research needs across economic, cultural and social issues, the database will also provide a rich source of primary data for research.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Ka Tū Te Taniwha - Ka Ora Te Tangata; Understanding the impacts of development in the Awahou groundwater catchment to ensure the health and wellbeing of the Ngāti Rangiwewehi people

Institute of Geological & Nuclear Sciences Limited

Connect Scheme, funded for $100,000 (excl. GST) over 2 years

New Zealand's freshwater resources underpin our nation's health and wellbeing, primary sector productivity and tourism success. For Ngāti Rangiwewehi, kaitiakitanga is in play at all times. Sustainable development and use of natural resources is paramount. It is about asserting rangatiratanga over water resources and safeguarding their health and wellbeing for future generations. In this research programme, GNS Science and Ngāti Rangiwewehi are working together to develop a framework for integrating relevant scientific, planning and mātauranga (traditional knowledge and cultural significance) information and data for natural freshwater resources. This will provide a strong foundation for informing and planning future resource development. The focus for this pilot study will be on the Awahou Groundwater Catchment, which includes the Taniwha Springs.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Kia haumako ana ngā awa tawhito o Ngāruahine: A collaboration to blend knowledge sets to improve the health of rivers within Ngāruahine lands and understand impacts of commercialisation of traditional freshwater fisheries

Massey University

Connect Scheme, funded for $100,000 (excl. GST) over 2 years

Our project, Kia haumako ana ngā awa tawhito o Ngāruahine signifies a true partnership and seeks to evoke the principles of Te Tiriti o Waitangi, where Massey and Ngāruahine will work together in partnership to share knowledge and skills enriching each other and improving our joint understanding of how best to enhance our waterways at the same time.

The project aims to weave together from mātauranga Māori and 'western science' the critical success factors for creating thriving natural river environments in Taranaki that will support commercial fisheries - wild, or farmed -while understanding the challenges within an intensive dairying environment which Taranaki-based iwi are also invested in.

Taranaki has a unique volcanic geomorphology which gives rise to multiple streams and rivers that meet 'dairy country' as soon as they leave maunga Taranaki and very shortly after that reach the ocean. Demand on ngā awa is intensive and river lengths are relatively short. This puts significant limitations on the range of iwi-sustaining economic activities Taranaki rivers can support, as well as the time to remedy pollutants.

In an era when iwi are looking to reinvigorate clean and sustainable water resources for traditional food sources, and for future potential commercial ventures, there is aspiration to understand and resolve water quality issues arising from current land uses. Ngāruahine, and other iwi and Māori-owned organisations in Taranaki, are seeking to understand and sustainably harness the freshwater resources in their rohe. Ngāruahine are making this application with Massey and are seeking to work with other Taranaki iwi and Māori organisation to benefit the greater collective.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Ma te anga aroturuki tikanga Māori ka ora ai Te Taiao – Scoping the development of a tikanga Māori monitoring framework for desired environmental outcomes

Landcare Research New Zealand Ltd
Placement Scheme, funded for $180,000 over 2 years

At the heart of most kaupapa Māori approaches is the concept of tikanga (cultural practices), which also provides the fabric or whāriki for defining Māori aspirational targets and outcomes for ecosystem health.

Development of Kaupapa Māori assessments for ecosystem health that utilise Māori cultural practices such as whakapapa (genealogy), whakairo (carving), raranga whatu (weaving), rongoā (medicine) and māra kai (horticulture) are in their infancy. Working at the interface of Māori epistemology and Western knowledge we will explore and articulate the relationship between tikanga Māori and ecosystem health. Our aim is to scope the development of an innovative conceptual framework drawing upon dual epistemologies (mātauranga Māori and Western knowledge) to determine qualitatively and quantitatively the scale and magnitude of relationships between ecosystem health and cultural practices. An initial scoping exercise will be used to identify the underlying tikanga (cultural practices) linked to ecosystem health. In addition we will explore the relationship between changes in ecosystem health and its impact on tikanga (cultural practices).

The intention of this proposal is to also explore the opportunity to apply a tikanga Māori monitoring framework to other ecosystems (e.g. terrestrial and marine) important to Waikato-Tainui and to other tribal rohe providing an opportunity for other iwi/hapū to participate more effectively in natural resource management.

The project provides a unique opportunity for Waikato-Tainui and Manaaki Whenua to continue developing their partnership by jointly identifying new research and providing leadership in knowledge sharing aimed at restoring ecosystem health. A major benefit of the programme will be to support the development of mātauranga Māori understanding by Waikato-Tainui tribal members for application in the management of key ecosystems such as freshwater.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Pan-iwi disaster management: taking Maori from the edge of disaster to the centre of influence

Lincoln University

Connect Scheme, funded for $100,000 (excl. GST) over 2 years

Maori institutions and cultural practices were a part of the disaster response to the Christchurch earthquakes of 2010-11. This Maori response was spontaneously extended to non-Maori through well-established but dynamic and evolving Maori cultural networks. Local Maori insights (from both Ngai Tahu and Nga Maata Waka) were particularly important for vulnerable city residents including the elderly and mental health clients as Maori individually and collectively operated alongside first responders (from Urban Search and Rescue/Fire Service, the Police, NZ Defence Force personnel), government and NGO officials, various iwi authorities, international emergency workers, churches and a variety of volunteers.

This project works towards the better engagement of key Maori individuals and organisations by mainstream disaster and emergency organisations to empower Maori as 'Citizen Scientists' and enable more efficient responses to future disasters in the rescue of survivors, provision of emergency supplies, medical care, emergency repairs and ongoing pastoral support.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Taiepa Tiketike: Passive Resistance to Climate Change at Parihaka

Massey University
Connect Scheme, funded for $180,000 (excl. GST) over 2 years

In this two year project, Parihaka Papakāinga Trust and Papakāinga residents, together with Massey University will co-develop a model for 'energy science and technology' that supports Papakāinga aspirations for a self-sustaining community.

The community is grappling with how to respond to growing demands on Parihaka as a cultural and education destination for visitors and a place to live for many more than those who currently reside there.

The Parihaka community is non-negotiably committed to ensuring that their community will develop in ways that support its kaupapa of continuing to be a world leader in peaceful coexistence – of people with its environment, and at the interface between the two. Living in a sustainable way is central to its strategy as is being an 'innovation leader'. Parihaka recognises it will benefit from engaging with technical research expertise on specific areas that need further exploration in order to achieve this vision.

Energy efficiencies, low energy housing, and multi-modal electricity and heat generation, storage and use, are to be explored in this joint project. Massey University's leads for this project have worked on rural energy projects including at Totara Valley (Tararua District), Stewart Island and the Māori community of Wharekahika (Hicks Bay) and will be able to share this experience with the Parihaka community.

From this partnership, the aspirations, present realities and evolution of the 'desired model for living' of the Parihaka Papakāinga will be informed by sustainable energy/living sciences research. The knowledge generated will be brought to bear on any obstacles encountered in making such a community an exemplar of an innovative and self-sustaining model.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

The integration of matauranga Māori and scientific knowledge to provide baseline information to tangata whenua to describe the state of the ecosystem within their rohe moana

University of Otago

Placement Scheme, funded for $180,000 (excl. GST) over 2 years

In New Zealand, Customary Management Areas (CMAs) provide a legislative framework for management at a scale that reflects the ecology of fisheries and the environment. Current CMAs cover an area five times larger than the coastal marine reserve network yet there is little quantitative scientific information to support management decisions that promote sustainability. Experience shows that scientific data is key in allowing CMA managers to make decisions and convince other stakeholders (e.g. fisheries industries and Government) that change is required. Importantly, science can be guided by and build on mātauranga Māori allowing for better decision making and restoration of the sustainability of coastal fisheries.

The proposed programme will provide tangata whenua, Kaitiaki and CMA committees with quantitative baseline information to support management decisions within their rohe moana (coastal area). The applicant will lead a core team of researchers and postgraduate students who will travel to key locations and conduct scientific surveys of the marine environment in conjunction with tangata whenua. The team will undertake stock assessments for key species (e.g. abundance, size and pollution) and determinations of key environmental and habitat characteristics. Year 1, the survey design will be deployed within the Ngāi Tahu Takiwā; Year 2 the programme will be expanded to include the North Island. A simplified surveying regime will be developed for tangata whenua to independently assess trends in stock densities over time and provide feedback for management committees, thus, supporting Māori communities and kaitiakitanga in a way that is specific to each rohe.

The programme provides a unique opportunity to draw together a specific set of skill to develop a comprehensive understanding of the marine environment at many locations within New Zealand and reinstate local communities as guardians of their marine environment.

Te Pūnaha Hihiko – Vision Mātauranga Capability Fund
2014 Investment Round

Unlocking the potential of the Te Hiku environment and its people

Massey University
Placement Scheme, funded for $180,000 (excl. GST) over 2 years

This is a proposal to the MBIE Punaha Hihiko Vision Mātauranga Capability Fund from the Whariki Research Group, Massey University (Whariki) who are working alongside Te Hiku o Te Ika Iwi Development Trust (THIDT). The proposal entitled, Unlocking the potential of the Te Hiku environment and its people, is an application to the Placement Fund.

THIDT is made up of 4 of the Far North iwi; Te Rarawa, Ngai Takoto, Te Aupouri, and Ngati Kuri. It is a vehicle for Te Hiku Iwi to work together on issues where collaboration will enhance the outcomes and make resources go further. The 4 Iwi have recently completed Treaty settlements after more than 25 years of struggle and engagement. They have set themselves a challenge to lead the rejuvenation of Te Hiku o Te Ika culturally, socially, economically and environmentally.

The application is for $180,000 over two years from October 2014. Cash and in-kind contributions will also be provided by THIDT and Whariki. The application will fund the secondment of an experienced researcher will work with within THIDT. The focus for the two-year work programme is on planning for environmental sustainability and economic development opportunities through a staged approach to environmental rejuvenation. While the focus is on the taiao and achieving environmental sustainability through iwi and hapu relationships with land and sea it also includes aspects of indigenous innovation, improving health and social wellbeing and exploring indigenous knowledge. This will include the development of a four-Iwi strategic approach to environmental research priorities in the region, building increased capacity and capability for ongoing research and development, and identification of a number of environmentally based opportunities and innovations that will also contribute to economic growth that will lift the well-being of the region.