Proposal ID	PROP-42486-VMCF-PFR
Title	China consumer insights, a Pathway to Premium for Maori food brands
Contracting Organisation	The New Zealand Institute for Plant and Food Research Limited
Other Parties/Organisations	Poutama Trust
Total Funding (GST excl)	$100,000.00
Duration (months)	12
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	This proposal plans to build formal connections between the Maori food industry and researchers who specialise in science into consumer and product insights. Maori food industry entities will gain insight into the role of sensory and consumer science in successful product development and branding (Design Thinking) as well as gain access to already available data on Chinese consumer preference which can enhance their product offer to this market. Researchers will gain insight into the specific consumer preference knowledge required to help drive the design, marketing and branding by Maori of premium products for Chinese consumers. The programme will be delivered through a partnership between Plant & Food Research, a Crown Research Institute, and Poutama Trust, an independent trust which provides business development services to Maori. Plant & Food Research (PFR) is an experienced and well-recognised provider of consumer and product insights science. PFR researchers are recognised by their peers at a global level for the quality consumer research programmes they have designed and implemented across a number of food sectors including wine, kiwifruit, pipfruit and functional foods. Much of this work has involved in-market consumer studies in Asia. Poutama Trust specialises in fostering the growth of Maori-owned businesses. The trust has a particular focus on food businesses, especially those with an export focus to Asia. This reflects increasing Maori investment in food production and branded food product development and marketing. Poutama has successfully established three important groupings of Maori food companies: the Miere Coalition (representing all aspects of the honey value chain), the Tuhono Whenua Red Meat Coalition and the Indigenous New Zealand Cuisine Cluster – a cluster of 31 Maori food and beverage businesses with a focus on domestic and Asian markets. This project is a direct response to a need identified by PFR and Poutama Trust throughout engagement with the Maori food sector. This engagement has included working with Maori food networks and individual companies, entrepreneurs and Iwi groups. In particular domestic and international exploration of market/product opportunities by PFR and Poutama directly alongside Maori food producers has highlighted that while Maori are developing a strong primary production base, and in a number of cases have already launched highly successful food products into China and wider Asia, many operators in the sector are at an early stage of product and brand development and have limited prior knowledge of high value food marketing or the Chinese consumer market. Robust knowledge of consumer perceptions of potential new products, combined with solid data on market niches and trends will enable these groups to target market entry investment for maximum penetration and help ensure their

	products and brands establish an early connection with high value consumers in China. The key activities within the project include: •A series of facilitated workshops between NZ-based consumer and sensory researchers and Maori food-related entities. These workshops will enable critical information sharing and analysis across both groups. These interactions will include input from Maori and non-Maori professionals with direct experience of Asia consumer marketing. •Identification of consumer insight science providers in China who could be contracted to assist with in-market research such as consumer panels, focus groups, tastings etc. •Development of an agreed set of priority consumer research topics which, if addressed collectively, would provide valuable information to a broad range of Maori food companies in a cost-effective manner. This will be done by an assessment of recent scientific, professional and trade literature to generate a report that highlights where producers and researchers can look immediately for both 'quick wins' and to identify gaps in the wider knowledge base and then prioritisation of where further research maybe needed.

Proposal ID	PROP-42504-VMCF-KMAHE
Title	Digital Media Platform for Livestreaming, Broadcasting, and Content Management & Archiving
Contracting Organisation	KMAHE
Other Parties/Organisations	
Total Funding (GST excl)	$180,000.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Placement
Summary	Who & What Te Hiku Media will work with researcher Keoni Mahelona to research and develop an innovative platform for livestreaming, broadcasting, and content management and archiving. This platform will bridge on-demand content and archives (see http://tehiku.nz) with broadcasting and livestreaming (Te Hiku Radio, Te Hiku TV, Tai FM, Sunshine FM, and, for example, http://waitangi.tv). Currently these two exist as separate systems - they have different software for scheduled programme playout on radio and TV, and both systems require physically switching from scheduled programmes to live broadcasts. Furthermore live broadcasts need to be manually retrieved for later playback and archival. The platform will automate and streamline these disjointed systems. The platform will also be media agnostic - it will work for radio, video, and any other new broadcasting mediums. The platform will be cloud-based so anyone could access the broadcasts, and they can easily share content and collaborate with other iwi, indigenous peoples, and media companies throughout the world. Why With perhaps one of the largest populations of native Māori language speakers belonging to its five managing iwi, Te Hiku Media has a unique opportunity and critical role to play in the regeneration of te reo o ngā haukāinga o Te Hiku o Te Ika and capturing of mātauranga Māori through broadcast, documentation and archiving. However current technologies used at Te Hiku are outdated, complicated to use for kaimahi, and very expensive, and this hinders Te Hiku's ability to pursue this opportunity. Over the last 6 months Te Hiku and the researcher have been working together to build a website for online TV and radio. During the course of that work both parties recognised an opportunity to transform how iwi and other indigenous people throughout the world broadcast and maintain digital assets. The opportunity focuses on putting broadcasting in the cloud and using simple and affordable devices (such as smartphones and $40 computers) as broadcasting hardware. This means broadcasters wouldn’t require special, expensive equipment, and they could broadcast from any device, anywhere. This initiative would significantly decrease the costs of operations for small media companies and give them the flexibility and capacity to adapt to new technologies and provide content to people beyond their traditional transmission coverage area. This platform would also enable Te Hiku to further their mission of revitalisation and archival of Māori language, culture, and mātauranga Māori. And this platform makes content generation more mobile and lets Te Hiku leave the confines of the studios to create and broadcast content all over the world. The other motivating factor for a new platform is that Te Hiku's current systems of hardware and software are outdated and no longer reliable. This is a common

	theme in iwi radio and other small regional broadcasters. Furthermore, the industry is changing so quickly that large capital costs are no longer viable as technology becomes obsolete more rapidly. A cloud and software based solution for the entire broadcasting production line would have the ability to evolve with industry and new technologies. It also lowers the entry barriers for small organisations wanting to update their current systems. How & When Te Hiku Media will follow a research and design process in order to properly carry out this proposal. Four main stages are outlined below, and their details are provided in the Work Programme section. 1.Observe and Inquire 2.Minimum Viable Product (MVP) 3.Technology Research 4.Research & Build Iteratively

Proposal ID	PROP-42468-VMCF-LIN
Title	Establishing a National Maori Biosecurity Network
Contracting Organisation	Lincoln University
Other Parties/Organisations	
Total Funding (GST excl)	$100,000.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	We will establish a National Māori Biosecurity Network around the management of pre and post border biosecurity threats (pests, pathogens and weeds). The network members will be mandated from their respective Māori organisations, roopu and Iwi to participate and speak on their behalf. Our network will build capacity and connect Māori organisations to the appropriate researchers and in particular, it will provide Māori researchers a culturally safe space to hold a biosecurity dialogue on items important to Māori. The establishment of this biosecurity network is urgently needed, as it will coincide with the 2015 launch of the fully funded and contracted Biological Heritage National Science Challenge (BHNSC). Initial members of the proposed network are already linked and collaborating in various spaces and across various projects but expansion is needed to ensure a wider voice. Recently developed research strategies and projects outlined in the BHNSC and the BioProtection Research Centre (BPRC) have prioritised specific case studies relevant to Māori, as there is a deficit of much-needed research in this space. With the increasing numbers of biosecurity incursions, and in particular those threatening our tāonga species (i.e. Kauri, Totora, Kawakawa and Pohutukawa) the need has never been greater especially when global climate change and increased global movement of people and goods is considered. While the proposed research in the BHNSC and BPRC attempt to combine Mātauranga Māori with contemporary science and management approaches, what is greatly needed is co-ordination among the groups (non research and research) to fully realise and utalise the environmental and economic impacts. Hence, the development of a network that includes Māori in both the end-user and researcher category that can assist in building a bicultural approach to biodiversity protection and biosecurity management that includes a range of responses in these research areas. Initial network participants include the Kauri Die Back Tangata Whenua Roopu, (TWR) Auckland Council, Te Whangai Trust, Nga Tirairaka o Ngati Hine, Te Uri o te Ngahere Trust and Maori researchers within the BioProtection Research Centre, Plant and Food Research, AgResearch, Landcare Research, SCION, Lincoln and Massey Universities. In our first year we will hold a series of regional hui at international entry points considered biosecurity hotspots (Auckland, Tauranga, Napier, Nelson, Wellington and Christchurch). These hui will lead to the formation of a Maori biosecurity roopu with a clear set of priorities, terms of reference and mandate including those representing Iwi. In the second year we will hold an Implementation National Biosecurity Wananga to discuss case studies for each local rohe and prioritise research topics. We will also link our Network to that of the Environmental Protection Agency Te Hautū: A Māori perspective http://www.epa.govt.nz/te-hautu/Pages/Te%20Hautū.aspx.

	Key individuals involved in this project are well established and regarded researchers in their fields of expertise. In addition to the project team, Kaumātua support will be sought to ensure tikanga is followed throughout the process. The team already has a proven track record in collaboration and Māori research development, with key members also contracted into the BHNSC management team (Ms Mark- Shadbolt, Drs Black, Waipara, and Wilcox), the Kauri Die Back TWR (Dr Waipara) and the BPRC (All). Management of the network will be overseen by Ms Mark- Shadbolt (Māori BioProtection Theme Leader), who has extensive experience in developing community focused research and Māori capability building. Dr Black, Hill, Waipara and Wilcox will provide technical and management support in establishing partnerships between researchers, research providers and Māori.

Proposal ID	PROP-41541-VMCF-PFR
Title	Flounder Enhancement in the Marlborough Sounds
Contracting Organisation	The New Zealand Institute for Plant and Food Research Limited
Other Parties/Organisations	Shark Nett Ltd Rangitane Iwi Ngāti Apa
Total Funding (GST excl)	$180,000.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Placement
Summary	Based in the Marlborough Sounds, Māori-owned company Shark Nett has witnessed declining wild-fish abundance to the extent that yellow-belly flounder (YBF) is its only commercial fish catch. Shark Nett, other local fishers and local iwi are keen to explore innovative ways of fishing and fishing-related activities that can be developed to help to maintain local skill and traditions, support and enhance the environment and develop the local economy. This project will develop a new research collaboration between PFR and Shark Nett by exploring the feasibility of using hatchery-bred fish to enhance the local wild stocks of YBF (Rhombosolea leporina), with a view to supporting innovative aquaculture or wild stock enhancement to benefit the local ecology and economy via commercial, recreational or tourism-based activities. In addition, this project will support the development of fish-rearing capability within Shark Nett that will enable Shark Nett and, through their relationships, the broader Marlborough-based iwi, to engage in future fisheries enhancement programmes in the Marlborough Sounds. This could create a model by which other iwi throughout New Zealand can actively participate in the enhancement of taonga species in their rohe consistent with the values of kaitiaki and manaaki. Shark Nett have access to commercial catch of YBF which have potential to be hatchery-bred and on-grown for aquaculture or reintroduced to supplement wild catches. A high standard of fish handling and husbandry is required to capture brood-stock fish and support the growth of juveniles, acclimatisation is required prior to release, and considerable after-release monitoring is needed for a programme to be effective. Shark Nett staff (Joel Bradley) placed within PFR will learn the basics of brood-stock husbandry, fish breeding and juvenile husbandry, experimental design, data capture, analysis and interpretation and specialist skills pertinent to fish breeding. PFR staff placed within Shark Nett will learn about Vision Mātauranga values and aspirations, flounder fishing and fisheries-related issues local to the Marlborough Sounds. Local engagement and participation is vital and provides an opportunity to make a true partnership between researchers and the local community. Mike Bradley, a director of Shark Nett, has held senior positions within Rangitāne and Ngāti Apa and will act as a conduit to engage with these and other local iwi (Ngāti Koata, Ngāti Kuia, Ngāti Rarua, Te Āti Awa, Ngāti Koaia, Ngāti Tama), other active YBF fishermen (both Māori and pakeha) and other stakeholders. In so doing, this project will foster a significantly broader understanding between PFR and traditional fishermen in regard to research knowledge, culture, and concepts of kai moana and kaitiaki. To support relationship-building, mutual understanding and Vision Mātauranga outcomes, Shark Nett will facilitate meetings, dialogue, discussion and hui with the broader community and PFR. The objective is to engage widely with local stakeholders to raise awareness of how science can

	support them individually and collectively. The project will be collaboratively managed by PFR Staff Dr Suzy Black (Science Operations Manager – Seafood Production) and Alistair Jerrett (Science Group Leader – Seafood Production). The principal staff to be involved in placements will be Warren Fantham (Finfish Production Senior Technician – Seafood Production; over 10 years of finfish culturing experience; Ngāti Porou) and Liam Hegarty (Fish Culture and Husbandry Technician – Seafood Production; recent graduate of the NMIT Aquaculture course). The project will create awareness of Vision Mātauranga amongst PFR staff and provide increased confidence in working with Māori at the community level in future projects to achieve Vision Mātauranga outcomes. All activities will take place in the top of the South Island.

Proposal ID	PROP-42542-VMCF-PAHANDFORD
Title	Integrating matauranga and science for sustainable land management that provides economic growth and supports biodiversity
Contracting Organisation	Groundtruth Limited
Other Parties/Organisations	Ngai Tamanuhiri Whanui Trust
Total Funding (GST excl)	$95,000.00
Duration (months)	23
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	Ngai Tamanuhiri are rebuilding their economy within their rohe and are seeking to unlock the value of resources while ensuring the restoration of degraded biodiversity. They wish to build their capacity around understanding and managing the key resources of their properties and wider rohe. This proposal presents an opportunity for a period of focused development and sharing of knowledge across the Iwi and researchers in sustainable land management that supports biodiversity. This will provide understanding for use across the country. Scope •Integrating traditional matauranga knowledge and ideas around management of native wildlife with the management of farm and forest properties across the Ngai Tamanuhiri rohe. •Mapping and obtaining detailed understanding of the resources of their properties and the relationship of their management to biodiversity restoration. •Exploring opportunities for new farm and forest production, restoration, honey production etc •Providing seminars, capacity building – understanding in relation to the integration of traditional and modern science to enhance sustainable land use and biodiversity across their properties. •Looking at mechanisms to work with other land owners and councils to share this approach and promote sustainable land management in accordance with matauranga principles Outcomes: •Greater understanding across researchers and Ngai Tamanuhiri of the relationship between matauranga and science in sustainable land management and biodiversity conservation •The transfer of this knowledge across education spaces (Kura and Schools) and Iwi •Advanced identification of ways to improve land management linked to provision of improved habitat for native species – increased biodiversity •Mapped resources and land management opportunities plus development of relationships that provide wide understanding across iwi, researchers, agencies and others. Together this will allow / unlock opportunities to meet iwi aspirations and support economic growth from land based resources and linked coastal resources in the rohe.

Proposal ID	PROP-41548-VMCF-GNS
Title	Kā Rongo te Hā o Rūaumoko – Understanding the impacts of air pollution
Contracting Organisation	Institute of Geological & Nuclear Sciences Limited - Trading as GNS Science
Other Parties/Organisations	Whakarewarewa Village Charitable Trust
Total Funding (GST excl)	$99,960.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	This project aims to understand the effect air pollution has on humans when exposed to extreme environmental conditions arising from earthquakes and volcanic eruptions. The project will compile the transition of Tūhourangi, particularly the involuntary resettlement of Tūhourangi Iwi following the 1886 Mt Tarawera eruption. Here we will map how Māori oral traditions transmit aspects from one generation to another through the interpretation of oral histories (pūrākau), mōteatea that relate to the survivors/remnant (mōrehu) and migration to the Whakarewarewa valley. The volcanic event would have had immediate impacts with acute health effects caused by emissions of toxic and corrosive gases (carbon monoxide, acidic sulphur oxides, hydrogen chloride, hydrogen sulfide) and emissions of volcanic ash particles. Over time, chronic health effects would emerge due to the size (fine and ultra-fine particles can directly enter the blood stream through the lungs, bypassing natural defence systems and accumulating in vital organs) and composition of volcanic ash particles (silica and toxic trace elements such as arsenic and mercury). Our research findings will lead to an improved collective understanding of the potential consequences of volcanic and geothermal events across the Taupo Volcanic Zone. This will provide a knowledge base to be implemented into indigenous hazard assessment and management plans through community awareness. It will underpin community monitoring, inform future planning, support geothermal and Māori tourism, and guide scientific investigation. In this programme we aim to translate lessons from spontaneous responses to impacts from the Tarawera eruption and identify the best resilience lessons learned into resilient solutions. Bimonthly meetings of the project team are accompanied by village meetings twice a year. 1.Mātauranga-a-Iwi: Mātauranga Māori, that is, the unique Māori way of viewing the world, encompassing both traditional knowledge and culture to preserve their culture and identity, and the relationships that culture and identity derive from environmentally-located knowledge within tribal lands. It follows that Mātauranga Māori, and kaupapa Māori theory, with their roots in mātauranga-a-iwi, must ultimately be understood as a relationship between the tribal environment and its people. 2.Pātaka Mātauranga: Examining current cultural assets through a resilience lens, to develop adaptive and transformative strategies within a merged science based and Māori framework. This will be achieved within a range of case studies concentrating on assets relating to Tarawera and Whakarewarewa with science hazard data augmented by local Mātauranga. 3.Knowledge Transfer: Sharing of research findings and experience through wānanga, development of resources and inclusion of information in guiding information. Māori researchers will develop a greater understanding of the scientific and technical detail for geothermal and volcanic resources. The integrated approach will assist all team members, the wider Tūhourangi-Ngāti Wahiao stakeholders, and ultimately other groups across New Zealand, to benefit from this work and understand how it will contribute to future decision making,

	resource management and community resilience. The kaupapa Māori approach concept of tikanga (cultural practices) provides the atamira (stage) or platform for defining Māori aspirational targets and outcomes for the state of “the air we breathe” ecosystem health. 1.The development of Kaupapa Māori assessments and monitoring for ecosystem monitoring that utilise Māori cultural practices such as whakapapa (genealogy), in existing communities. 2.Working at the interface of Māori epistemology and western knowledge, we will explore and articulate the relationship between tikanga Māori and ecosystem health. 3.Our aim is to scope the development of an innovative conceptual framework for monitoring, drawing upon dual epistemologies (Mātauranga Māori and western knowledge) to determine qualitatively and quantitatively the scale and magnitude of relationships between ecosystem health and the impact on cultural practices. 4.To learn, help understand and potentially find methods to overcome challenging environments.

Proposal ID	PROP-42397-VMCF-CAW
Title	Kia Mahitahi - working together to improve water quality and river well-being
Contracting Organisation	Cawthron Institute
Other Parties/Organisations	Tiakina te Taiao Ltd
Total Funding (GST excl)	$100,000.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	The Mahitahi River, like many in NZ, is a river under pressure. Flowing west through hill country to the west of the Bryant Range before passing through the city of Nelson it sustains significant cultural associations and practices, a range of recreational activities and importantly provides the drinking water for the Nelson municipality. The Mahitahi catchment, particularly the mid- and lower reaches, supports a diverse range of landuses, including production forests, reserves, stock production farms, urban development and stormwater inflows. The Mahitahi is a metaphor for the work proposed in this Connect project. The word "Mahitahi" literally means "working together as one". If this project is funded, it will allow Tiakina Te Taiao Ltd to work together with the Cawthron Institute to develop improved systems, based on both Matauranga Maori and Western science, to better manage our freshwater resources. While the Mahitahi will play a central role in the project, perhaps more importantly, it will be the catalyst to allow a Maori organisation and a research organisation to develop strengthened connection. In a wider sense, the 'stars have aligned' for the Mahitahi with iwi, council, community groups (e.g. Friends of Maitai) and Cawthron beginning to work together to enhance the health/ora of the river. This funding will therefore amplify the benefits from existing plans. Land, Air, Water Aotearoa (LAWA) is NZ's most comprehensive source of scientific water quality data (www.lawa.org.nz). LAWA has been a key mechanism for raising concerns about the water quality of the Mahitahi River, based on scientific data. However, connection with Matauranga maori is largely missing in Mahitahi work and LAWA so far - but all parties are keen to improve this. The Cawthron Institute is one of the partner organisations in LAWA. Oover the next two years, through new connection with Tiakina te Taiao, LAWA will be adapted to make it more responsive for Maori. Environmental data will be made available to support kaitiakitanga, the nature and form of the data will be structured based on Maori responsiveness, and we will add stories to LAWA that demonstrate iwi and hapu relationships with water resources.

Proposal ID	PROP-41936-VMCF-FRI
Title	Mātauranga Whakarewarewa: developing tamariki science knowledge for the future
Contracting Organisation	New Zealand Forest Research Institute Ltd Trading as Scion
Other Parties/Organisations	Te Kura O Te Whakarewarewa
Total Funding (GST excl)	$66,490.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	Ko te manu e kai ana I te miro, nōna to ngahere; ko te manu e kai ana I te mātauranga, nōna to ao - The bird that partakes of the miro berry reigns in the forest; the bird that partakes of the power of knowledge has access to the world. This proposal seeks to connect Scion and Te Kura O Te Whakarewarewa; developing a strong and enduring relationship which enhances science uptake in the tamariki, supports the science understanding of teachers, and increases mātauranga relevance across Scion, a Crown Research Institute. Tamariki from Te Kura O Te Whakarewarewa will be well versed in Māori principles and values and have an understanding of and passion for science, on track to be Te Arawa's future leaders. Te Kura O Te Whakarewarewa is a dual medium school with around 60 tamariki in two streams: Te Rumaki stream with total Te Reo Māori emission from Year 1 to Year 6, and Te Auraki taught in English from Year 1 to Year 8. Although Te Auraki is taught in English, both streams embrace traditional and spiritual Māori values. The school is situated on Scion's boundary, but there has only been intermittent communication between the two organisations since the school moved to the current site in 1937. There is a strong, and mutual, desire to finally connect the school with its local science community. This proposal aims to cement a structured programme of communication between the school and Scion, driven by school-centred science learning and teacher training. Teachers and pupils will visit Scion and gain a deeper understanding of the science behind science study themes. Scion staff will work with the teachers to develop lessons and activities, while learning to translate their science in a welcoming Māori environment; encouraging the use of Te Reo, ensuring correct Māori pronunciation and providing familiarity with Māori principles and values. This will enhance Vision Mātauranga relevance across Scion and increase staff familiarity with Te Āo Māori. Weekly school planning meetings will form the basis for the proposed programme, with school staff meeting at Scion where they can visit the laboratories, nursery or forest to obtain information and resources which could enrich their lessons. Potential ideas for science enquiry include water tests to test the quality of the Pūarenga Stream and information on upstream causes of water quality issues including run-off, agriculture and geothermal sources of sediment and nutrients. Other ideas include measuring tree growth rates in the forest behind the school and some information on the economics of forestry as a long term investment based on the growth rate of trees. New ideas will be developed during the course of the 2 year programme as the curriculum progresses and cycles through term themes.

	The key contact for Scion at Te Kura O Te Whakarewarewa will be Hariata Tapiata, the school principal. All Te Kura O Te Whakarewarewa teachers will attend the teacher meeting held on the Scion campus. The key contact at Scion for the school will be Kim McGrouther. Kim has a passion for sharing science and learning with others. Other Scion staff involved will be selected based on how well their areas of expertise align with the theme of the term's curriculum. This programme will provide benefits to both participating organisations, but most importantly provide the best start for the tamariki at Te Kura O Te Whakarewarewa for a career in science, to form the future leaders in forestry, farming and other science based industries important to Māori.

Proposal ID	PROP-42450-VMCF-UOC
Title	O Kahukura, O Marokura: Integrating kaitiaki, science and education
Contracting Organisation	University of Canterbury
Other Parties/Organisations	Raewyn Solomon/ Te Runanga o Kaikoura
Total Funding (GST excl)	$99,955.00
Duration (months)	23
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	Our goal is to create a working education model for the sustainable management of local resources and to develop kaitiakitanga throughout New Zealand. We will achieve this by consolidating the efforts of iwi and community conservation groups in a centre of science and education to support their work for publication and dissemination, as well as integrating tertiary and secondary teaching and research coupled with community mentorship. This initiative will build capacity to support the ongoing monitoring and maintenance of customary protected areas. O Kahukura, O Marokura will form a strong base from which educational relationships will develop. Te Tai ō Marokura is an integral part of Ngāti Kuri history and cultural identity and will, therefore, be the focal area for this initiative. Globally, Kaikōura boasts the most diverse sub-marine canyon fauna and seabird communities, hosts resident marine mammals in ecosystems from coastal shores to the deep sea canyon, and includes the only seabird to nest in an alpine habitat. In addition, the diversity of management tools used in this catchment is leading the nation in iwi and community-driven marine conservation. For example, the recently implemented Kaikōura Marine Management Act was not nationally mandated, rather, local community groups with divergent objectives joined to form Te Korowai o Te Tai ō Marokura to protect this globally significant biodiversity hotspot. Community-driven conservation is becoming more common throughout the world. However, the values and work of kaitiaki and community leaders are rarely linked to scientific research and scientists don't always see the value of data collected or local knowledge held by members of the community. Similarly, tertiary teaching often lacks contextual learning and is disengaged from community leaders and educators. This can lead to disharmony between government initiatives and community uptake and enforcement. Graduates often lack the knowledge to see the value in bicultural innovation in environmental management and technology. O Kahukura, O Marokura aims to bridge this gap and ensure conservation ownership with longevity in mind. Specific Aims: 1.To collect baseline information about the current state of customary fisheries within the Oaro, Te Waha o te Marangai, and Mangamaunu Māitaitai; and the Oaro / Haumuri and Kaikōura Peninsula Taiāpure. 2.Create an innovative tertiary education programme that is delivered in partnership with Te Rūnanga o Kaikōura and community mentors (KDC and community partners, e.g., Te Korowai and Kaikōura Museum). 3.Develop research projects in collaboration with Te Rūnanga o Kaikōura that involve students and researchers from secondary schools, universities and the community to strengthen conservation objectives and to develop innovative technologies adaptable to multiple ecosystems and management frameworks.

	Kaikōura; a small town of only 4500 residents has an environment and associated tourism industry of national significance (e.g., Whale Watch and Dolphin Encounter), as well as community engagement at all levels of conservation. Integrating these values with a tertiary science station that has been delivering research outputs for over 50 years, our centre will deliver outcomes of national and international impact, with lasting biodiversity gains and economic well-being for New Zealand. O Kahukura, O Marokura will use existing facilities of the University of Canterbury and the Takahanga Marae. During the first year of the proposed project, University of Canterbury staff, led by Dr John Pirker and Dr Sharyn Goldstien will work with representatives from Te Rūnanga o Kaikōura lead by Raewyn Solomon to conduct initial environmental surveys and to develop a framework for ongoing project development. In the second year, we will implement objectives from the framework and develop a workshop to engage local practitioners of Kaitiaki for further engagement to develop teaching tools and a strategy for ongoing development and monitoring of the customary reserves.

Proposal ID	PROP-42383-VMCF-NORTH
Title	Scoping the development by Pehiaweri Marae hub & NorthTec of a Tikanga Maori focused digital literacy framework for community development & education with ethical business development
Contracting Organisation	NorthTec
Other Parties/Organisations	Pehiaweri Maori Church & Marae Inc.
Total Funding (GST excl)	$180,000.00
Duration (months)	22
Research fund	Vision Mātauranga Capability Fund
Scheme	Placement
Summary	What the proposal is planning to do The proposal is planning to evaluate the needs of the community for skills in digital literacy and develop commercial opportunities to use these skills to create employment. This will be achieved by; • A needs analysis of the community with regard to digital operation skills, online behavior and application/software coding • Pilot programs to address the needs established • Evaluation of research on programs to modify and develop further to close the digital divide Why it is being done The pace of change in technology has created a digital divide in Northland whereby parents and older generations as well as those without access to digital devices are left behind. This puts them in a situation where they are unable to guide Whanau through the digital age as they struggle with both the mechanics, culture and ethics of information technology. A needs analysis will enable us to provide effective solutions to these problems and develop programs which address those needs. How it will be done A researcher from NorthTec will be placed at the Marae to evaluate the needs of the community. An investigative project will be undertaken by talking to schools and community organizations as well as public forums at the Marae. This will focus but not be limited to three broad areas. •Mechanical Literacy; Exploring the use of digital devices, software and networks. (Getting connected) •Cultural Literacy; Applying cultural identity, ethics and integrity to the digital world. (Being Comfortable and Safe) •Coding Literacy; Developing an ability to code software applications. (Moving Forward and Innovation as a Digital Entrepreneur) Programs will be implemented on evidence-based research, to scaffold knowledge in the community in each of these three areas. This will be allied with mentoring and advice to support the program The digital world can be ephemeral, but by tying this study to a Marae and the Community will ensure the research and learning process best reflects the need for this initiative. This program will evaluate the effectiveness of engagement in this environment. When will it be done A research analyst will be recruited and put in place by April 2015. The researcher will carry out a literature review and a needs analysis, which will start in mid-

	2015. Late 2015 data evaluation and reporting and identification of key programs to start in 2016. Programs on all three areas will run and be evaluated through 2016 with research and analysis of outcomes presented in early 2017. Who is involved? Pehiaweri Marae will provide facilities and space for the study as well as making connections between the Community and the Marae providing conduits for knowledge exchange and relationship development. Leading the team at the Marae as Project manager will be Les Wakefield (Chairman of Pehiaweri Marae), Nitama Brown (Relations Team Administrator) and Joby Hopa (Relations Manager at Pehiaweri) will also be supporting this initiative. NorthTec will provide academic rigor and research supervision along with specialist knowledge and analysis. Dr Graeme Haywood will act as research supervisor and Nigel Studdart will oversee the project and coordinate the partners. Dr Georgina Stewart, Pouako Matua – Senior Lecturer from the University of Auckland will act as a mentor and on the supervisory panel.

Proposal ID	PROP-42367-VMCF-LCR
Title	Strengthening relationships between between CRIs of the Te Ara Putaiao (TAP) partnership, Maniapoto Māori Trust Board and Māori landowners, and development of a new methodology for the evaluation of the risks and potential rewards of land use opportunities
Contracting Organisation	Landcare Research New Zealand Ltd
Other Parties/Organisations	Maniapoto Maori Trust Board (MMTB) NIWA GNS Plant and Food Research Scion AgResearch
Total Funding (GST excl)	$100,000
Duration (months)	12
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	In partnership with MMTB and the CRI Te Ara Putaiao (TAP) partners, two Māori land blocks will be selected to undergo a block-scale biophysical resources assessment and scenario development process. 1. Preliminary walkover Pedologists, geologists, hydrologists, freshwater ecologists, and scientists from the fields of horticulture, agriculture and forestry will visit each participating land block as a team to ensure all scientists have some field-based understanding of the blocks being studied. 2. Detailed assessments Undertake generalised 1:5,000 - 1:15,000 scale characterisation of the land versatility, geology, landforms, erosion (Land Use Capability Assessment), biodiversity, land use and water quality. Yield a 1:5,000 - 1:15,000 scale S-map soil survey. These assessments will be undertaken by a pedologist from Landcare Research. Other outputs include a property description, maps of infrastructure, waterways, land management units, a description of cultural and historical features, current land use and management practices. 3. Further detailed assessments Based on the results from Phase 2, specialised assessments will be undertaken to identify geological hazards and mineral resources (GNS) and water quality and water quantity issues and opportunities (NIWA). NIWA will re-run the TopNet model for the surface water catchment surrounding the land blocks, calibrate the model with S-map soil information where it is available, and model surface water flows. 4. Assessment of current land management and economics Evaluation of environmental risks and economic opportunities pertaining to each block using a series of tools and approaches: •Overseer™ nutrient budget. •Mitigator for assessment of critical source areas for phosphorus loss to waterways from the soil surface. •Soil Risk Categories for determining the nature and extent of Farm Dairy Effluent (FDE) land application systems (including calculation of FDE pond size). •Farmax for providing an evaluation of current farm business and assessment of

	measures likely to increase productivity (for drystock and dairy pastoral land uses). •Initial opportunities analysis for horticulture, forestry, agriculture and other land uses such as honey production. ◦Plant and Food Research model for evaluating suitability for horticulture, and ◦Scion's MyLand model is a strategic planning tool for mapping and evaluating land use options at the property level. It is web based and allows GIS land resource information to assist the decision making. 5. Scenario building and modelling phase Iterative decision-making process where the models deployed in Phase 4 are used to generate scenarios demonstrating the evolving state and potential future impacts of selected land use scenarios. The outcome of Phase 5 will generally be a consensus regarding future direction for use and management of a land block; typically this occurs when the landowners have a clear understanding of the steps required to render an intended trajectory. 6. Final document produced This will document the process outlined above, drawing from the various meeting minutes and versions of the Farm Plan. It will provide robust information that will simplify future decision-making MMTB aims to be equipped to act in an advisory capacity to Māori landowners, to provide information about biophysical resources, and facilitate interaction with appropriate networks of CRIs that can assist with different land development proposals. MMTB will observe and take note of the practice and achievements of CRI involvement with landowners when evaluating land development options at block scale, and the respective roles that individual CRIs have in this process. This project across 2015-2016 will provide MMTB with case studies to demonstrate and catalyse further landowner engagement.

Proposal ID	PROP-42516-VMCF-AGR
Title	Te Kakenga Ngātahi i te Ara Poutama (Stepping forward together - up the stairway to prosperity)
Contracting Organisation	AgResearch Limited
Other Parties/Organisations	Te Tumu Paeroa
Total Funding (GST excl)	$100,000.00
Duration (months)	22
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	AgResearch and Te Tumu Paeroa share common goals for making significant and lasting impacts for Māori landowners in the best use of their land-based assets, and by working together, will accelerate and enrich the services provided to tangata whenua and amplify the benefits they (and all of New Zealand) realise. This proposal, along with an MOU, represents a major step-up in the connectivity between Te Tumu Paeroa and AgResearch with the objective of creating a relationship of co-development and real partnership. A total of $45,000 co-funding has been committed to this project by AgResearch and Te Tumu Paeroa. For tangata whenua, sustainability is a multi-aspect concept – mātauranga (indigenous knowledge), tikanga (cultural values and protocols), kaitiakitanga (inter-generational stewardship), taiao (sustainable environment) and whanaungatanga (kinship and collaboration) – such that best practice management of their land assets require balancing many values. Similarly, Māori land is likely to have many owners/trustees with a range of capabilities to engage in and come to robust decisions. Towards this end, Te Tumu Paeroa has devised new decision-making methodology to assist their stakeholders in better asset management (Hono Framework). The Hono Framework has been developed for Māori (landowners and shareholders) by Māori (Te Tumu Paeroa) taking into account community aspirations. It uses the poutama (principle of continuous improvement in the stepped design of a tukutuku panel) as an analogy – methodology that progresses upwards towards robust and timely decisions – and includes four phases: engagement with landowners (Phase 1), exploration of options and feasibility studies (Phase 2), implementation of decisions (Phase 3) and monitoring progress and outcomes (Phase 4). Te Tumu Paeroa is looking towards AgResearch to supply science-based tools and information to integrate into this process (at Phases 2 through 4). AgResearch recognises that New Zealand pastoral farming is rapidly moving towards an operating environment with limitations on natural resources and emissions. Optimising both environmental and financial goals within a farm and across a collection of farms (e.g. catchment) is becoming the new normal. In this respect, AgResearch see Māori as potential role models for the wider pastoral industry. AgResearch is looking towards Te Tumu Paeroa to mentor AgResearch staff through real-world interactions with Māori users of its technologies towards a deeper comprehension of Māori concepts of sustainability that can become embedded (as business-as-usual) into AgResearch's thinking and future research directions. In this project, Te Tumu Paeroa and AgResearch will jointly pilot the Hono Framework integrated with the new generation farm systems (Farm Optimisation) and social return on investment (SROI) models with a group of Māori landowners in the Ohakea Plains (Manawatu). This group represents

	approximately 1,050 hectares of class I to III land.[1] Te Tumu Paeroa will approach and engage landowners to collectively determine the best sustainable use of all their landholdings that balances the protection of the Rangitikei River (where limits for nitrogen leaching have been set under the authority of the Horizons Regional Council's One Plan) with long-term economic, social and cultural goals. AgResearch staff will not only actively observe the Hono Framework, but also contribute land-use scenarios within the One Plan's limits (the new norm) and other information to help the landowners come to robust decisions and identify key performance indicators for monitoring (Phase 4). With success of this project, Te Tumu Paeroa and AgResearch expect extension of this process to other Māori- owned land administered by Te Tumu Paeroa to assist these communities to achieve their particular aspirations (with flow-on impacts for all of New Zealand for economic prosperity, clean environment and happy people). In this respect, Te Tumu Paeroa and AgResearch anticipate submitting a joint Vision Mātauranga Placement Scheme in 2017.

Proposal ID	PROP-41908-VMCF-GNS
Title	Te Kura Whenua – building an understanding of earth science for informed decision making
Contracting Organisation	Institute of Geological & Nuclear Sciences Limited - Trading as GNS Science
Other Parties/Organisations	Ngāti Kahungunu Iwi Incorporation
Total Funding (GST excl)	$100,000.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	Te Kura Whenua has been co-developed by Ngāti Kahungunu Iwi Incorporated (NKII) and GNS Science. The initiative aims to strengthen relationships and increase knowledge exchange between Māori and earth scientists on three issues critically important to iwi development: geological hazards, climate change and petroleum exploration. The initiative has been driven by Ngāti Kahungunu. As kaitiaki of the largest North Island rohe, with ~500 km of coastline, the iwi recognises the importance of an informed understanding of the potential risks and benefits surrounding these issues. Through interactive marae-based learning, incorporating hands-on field exercises, participants will develop connections between Mātauranga-a-Iwi and earth science, particularly around issues critically important to iwi development, resilience and environmental sustainability. The Ngāti Kahungunu rohe comprises the eastern North Island from Mahia in the north to Cape Palliser in the south. Its geological setting makes the region uniquely susceptible to the risks from climate change and geological hazards. Lying to the west of an active subduction margin, it is at risk from earthquakes and tsunami. The soft sedimentary rocks are easily eroded by storms, and the low-lying coastline is at high risk from rising sea levels. The region is also the focus of active exploration for oil and gas, with potential for significant economic benefits both to the region and the nation. NKII recognises that there is an urgent need for local communities to understand and help to manage the risks associated with geological hazards, climate change, and petroleum exploration. The potential benefits from development of natural resources, such as petroleum and water resources, need to be balanced against the potential risks to the environment and future generations. GNS Science also recognises that its staff need to increase their understanding of Māori perspectives on these issues. The project will comprise one introductory wānanga based at GNS Science in Lower Hutt, two marae-based wānanga in Southern Hawke's Bay and Wairarapa, and a concluding Hui-a-Iwi in which the iwi and scientists will identify priority research issues or topics and develop a joint action plan with GNS Science. The hui will identify key individuals who will work together with GNS Science scientists to develop a targeted and in-depth understanding of the priority topics, leading to secondment, training and capability development opportunities. Each wānanga will comprise 3-4 days of authentic activity-based learning and dialogue with an emphasis on field activities. GNS Science scientists will facilitate hands-on inquiry-centred learning to help iwi discover fundamental concepts in earth science while using science process skills including observation, interpretation, discussion and debate. NKII are responsible for selecting wānanga participants. Kaumātua and iwi participants will contribute local knowledge. Discussion times will be used to explore the earth science issues relevant to the

	local iwi, including the potential impacts of climate change and sea level rise, risks from tsunami and earthquakes, and consideration of the potential risks and benefits of local petroleum exploration and other resource development. Each wānanga will conclude with an open forum discussion and/or a participant-led learning exercise for the wider community. Positive relationships with key hapū groups and neighbouring iwi are critical to the success of these wānanga. NKII and GNS Science will work closely with local tai whenua, hapū and neighbouring iwi to ensure on the ground support for wānanga and host marae. NKII and GNS Science have identified a mutually beneficial set of outcomes that have broad appeal to the iwi and implications for future development of their rohe. The project proactively addresses nationally significant issues and opportunities in line with the aims of He Kai Kei Āku Ringa. The team plans to extend this initiative to other iwi in future years.

Proposal ID	PROP-42471-VMCF-TWMOH
Title	Te Poipoia Tūkino o Hauraki - IT applications for the diffusion of mātauranga Māori social norms that are known to reduce the impacts of whānau violence
Contracting Organisation	Te Whāriki Manawāhine o Hauraki
Other Parties/Organisations	Guru Digital Media Tumana Research
Total Funding (GST excl)	$23,000.00
Duration (months)	12
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	Te Whāriki Manawāhine is seeking an opportunity to connect with local specialists who have the capability to create dynamic and accessible animated, personal feedback digital technologies that will particularly appeal to tai-tāmariki/rangatahi but also contribute to a platform of strategies for the diffusion of mātauranga Māori social norms that are known to minimise the risks associated with whānau violence. The mātauranga Māori content, to be uploaded in these technologies, will be drawn from an iwi-specific model of violence prevention, that our organisation has been delivering since the 1990s. This activity is informed by behavioural science particularly Public Health's Trans-theoretical Model of Behaviour Change, Systems Theory, Social Norms Theory and the emergent discipline of Community Mobilization. The evidence shows that social messaging campaigns which invest in the use of diverse and innovative strategies, to target a range of audience-types, have the capacity to generate a sustainable critical mass that can transform the negative social norms which underpin violence in families and communities. Te Whāriki Manawāhine has placed these findings in a context which makes sense from an indigenous lens, and embarked on a journey that is testing the capability of social messaging campaigns to imbue mātauranga Māori social norms within Māori, and non-Māori, members of our community. The notion of animated, personal feedback, technologies has been inspired by social norms theory and successful use of digital applications internationally. Social norms theory suggests individual behaviour is largely determined by personal perceptions about the attitudes and behaviours that are acceptable in social groups of relevance. In other words, we tend to do the things that we believe other people in our whānau and community will also do. However, our personal beliefs can be erroneous. In everyday settings, we often over-estimate the acceptability of negative behaviours and under-estimate the positive. Social scientists in the UK and USA have shown that simple digital techniques which compare personal perceptions about the acceptability, or prevalence of particular behaviours, (such as cigarrette smoking or drug use), with the actual prevalence of these behaviours in their own communities, can correct misperceptions and, thereby, reduce the incidence of such behaviours. In Uganda and South Africa, the use of non-digital personal feedback strategies is transforming the social norms associated with a range of behaviours, including open-defecation, female circumcision, the use of condoms for AIDS prevention and family violence. Te Whāriki Manawāhine wants to take these international initiatives one step further and create animated digital feedback technologies that reconstruct the content of social messaging campaigns around mātauranga Māori themes that have particular relevance for whānau in our community but also have the capacity to improve social wellbeing throughout New Zealand. Two digital applications will be created by specialists in the Thames branch of

	Guru Digital Media: a gender perceptions quizz and a mātauranga Māori social messaging campaign based on key learnings in the Poutama Mauri Ora Mauri Tū model of violence prevention. Guru Digital will provide the technical expertise, and ensure the products are accessible, functional, dynamic and innovative with animated personal feedback mechanism that sustain participant interest and also enable information capture, if and when appropriate. Tumana Research, who is contracted to work our pilot tool for measurement of mātauranga Māori social norms until September 2015, will oversee the content, design, back-end functions and testing of the technology prior to launching in a public doman. Te Whāriki Manawāhine will provide peer-reviewed mātauranga Māori content, te reo Māori support and manage the contract. Both programs will be created in Te Reo Māori and English and may also be downsized to phone applications. The 12 month project will commence on 30 April 2015.

Proposal ID	PROP-42349-VMCF-UOW
Title	Te Waka a Tama-rereti: Networking Maori Expertise in Genomics, Informatics and Technology
Contracting Organisation	University of Waikato
Other Parties/Organisations	Nga Pae o te Maramatanga, University of Auckland NSC Biological Heritage (University of Otago) NSC, Science for Technological Innovation (University of Otago)
Total Funding (GST excl)	$100,000.00
Duration (months)	12
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	Recent shifts towards more collaborative research investment models and interest in enhancing knowledge and technology transfer from science organisations to community and commercial stakeholders has emphasised a need to co-ordinate existing capability and develop additional capacity. Maori interest in and expectations of the RS&T sector has also increased as they look to advance their development aspirations across economic, environmental and social domains. Increasingly R&D organisations are recognising the cultural and spiritual links between indigenous species and Tangata Whenua. Despite the lack of satisficatory resolution of the WAI262 'Fauna and Flora' Treaty claim, this increased recognition provides both challenges and opportunities. This project will build on the collaborative spirit of the National Science Challenges and the Maori research excellence fostered by Nga Pae o te Maramatanga to create a network of Maori expertise in Genomics, Informatics and Technology to initiate Vision Matauranga inspired research programmes and support knowledge transfer into the Maori sector for commercial and environmental outcomes. The involvement of kaitiaki and kaipakihi Maori in the network will establish interactive spaces to develop Maori centred and delivered R&D from these technologies. Objective 1: Network of Maori Expertise in Genomics, Informatics and Technology We will establish a network of Maori with expertise in Genomics, Informatics and Technology. The network will consolidate and co-ordinate Maori genomics and bioinformatics expertise for Te Kahui Whetu, the Maori Research Co-ordinating Committee involving Nga Pae o te Maramatanga, Te Ara Putaiao and the Kahui Maori for the National Science Challenges. We propose that this network be an independent 'go to' network of Maori researchers to provide expert advice and technical support for Maori communities regarding modern genomic technologies. We are aware of at least ten researchers of Maori descent with advanced qualification in this area, with more currently being trained in these technologies at graduate level. The network will also include both kaitiaki and Maori business interests who share a commitment to the appropriate utilisation of Matauranga Maori and taonga species for research and commercialisation activities. Objective 2: SING Aotearoa – Summer Internship for Natives in Genomics (SING) The SING Workshop is a one-week workshop run by University of Illinois and University of Texas aimed at discussing the uses, misuses and limitations of genomics as a tool for Native American communities http://conferences.igb.illinois.edu/sing/. The goals of the workshop are to: 1.facilitate discussion on indigenous cultural values and whether scientific methods can be beneficially incorporated with these values, 2.provide awareness of how genomics is currently used as a tool to assist in projects focused on natural resources, history and health; and

	3.to increase the number of Native Americans in science research, leadership and teaching careers at all levels. SING Aotearoa will adapt the summer internship programme to the New Zealand context and hold an annual workshop for up to 15 Maori students with an interest in the Genomic sciences, leveraging skills of both Maori and non-Maori experts in these fields. Participants will be identified through Nga Pae o te Maramatanga's MAI network, as well as interested Maori from the community network initiated in Objective 1. The workshop content will be adapted in collaboration with the NSC 5 New Zealand's Biological Heritage and NSC 10 Science for Technological Innovation. We will also create a formal connection between SING USA and SING Aotearoa to allow for an exchange of students and facilitators. Objective 3: Develop VM research programmes in Genomic Science We will conduct hui to develop relationships and facilitate knowledge exchange in a Maori context with the goal of initiating new VM related research programmes that align with Maori aspirations and opportunities for development. Two VM research incubator events that align with NSC 5 and NSC10 will be held in collaboration with Nga Pae o te Maramatanga each year. For the BH and STI NSC's, Maori researchers as well as those trained in the relevant science will interact with groups of kaitiaki and kaipakahi to exchange knowledge and generate new ideas, leading to new research relationships and proposals which leverage environmental and economic benefits of genomic research.

Proposal ID	PROP-42307-VMCF-PFR
Title	Te Awanui Huka Pak Innovation
Contracting Organisation	The New Zealand Institute for Plant and Food Research Limited
Other Parties/Organisations	Te Awanui Huka Pak Ltd
Total Funding (GST excl)	$180,000.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Placement
Summary	This project will introduce Te Awanui Huka Pak Limited (TAHP) to the broader range of capabilities and ideas within Plant and Food Research (PFR) and support its development of an innovation training module for its "Kiwisphere" Trustee training programme. It will broaden and strengthen PFR and TAHP's existing relationship which is currently focused on kiwifruit research and production. Overall, this project will enable TAHP and its Trustees to engage more broadly and successfully with RS&T systems, to help to develop their assets and thus enhance their economic performance. TAHP is a 100% Māori-owned exporter with assets over $20 million based in Tauranga Moana. It is involved across the whole kiwifruit value chain from orchards, to post-harvest and through to the market. In 2011 TAHP merged with Seeka Industries, its 17% stake making it the biggest shareholder in the largest NZ post-harvest entity. TAHP has a Corporate Services division offering a "one stop shop" of services to Māori trusts and incorporations, including; shareholder database management, dividend processing, communications and grants management, and secretarial and administration services. It is currently developing a new Kiwisphere training programme to upskill its Trustee participants on investments; financial literacy; growing kiwifruit; post-harvest basics; kiwifruit orchard basics; industry & market structure; industry & financial reporting; and maximising orchard returns. This programme is framed by kaupapa Māori principles and focuses on understanding how Māori trusts can develop and diversify their assets whilst maintaining their values and their roles as inter-generational kaitiaki (guardians) of their lands. TAHP wants to include a module on innovation into Kiwisphere so is keen to benefit from PFR's expertise and connections in the innovation area by building on an existing relationship etween PFR staff and the previous TAHP CEO in the kiwifruit area. PFR has extensive experience in the innovation system from science through to IP protection, management of plant variety rights, and commercialisation as partners in Kiwinet. As a large organisation, PFR has human resource experts who can help in the design of training programmes. The placement project will provide time for staff from both organisations to learn about each other's particular needs and strengths kanohi ki te kanohi (face to face). TAHP's new Executive Officer, Amy Porter (Ngāti Tūwharetoa), will dexperience placements at four PFR sites connecting with PFR staff with a range of expertise; PFR staff will be involved in reciprocal exchanges to TAHP in the Bay of Plenty (BoP) at least four times over the two-year programme. By the end of this project TAHP will have developed an innovation module for Kiwisphere for its Trustees, and PFR will have engaged with TAHP and its trustees on multiple occasions and gained an appreciation for how TAHP incorporates

	Māori values into its business practices, and how to engage more effectively with various Trustees.

Proposal ID	PROP-42521-VMCF-MAU
Title	Tūpuna kai – Reconnecting New Zealand Māori with the benefits of traditional food
Contracting Organisation	Massey University
Other Parties/Organisations	Tahuri Whenua
Total Funding (GST excl)	$91,723.00
Duration (months)	24
Fund	Vision Mātauranga Capability Fund
Scheme	Connect
Summary	The aim of this proposal is to increase the opportunity for new connections with: 1.Research: Tahuri Whenua have had a long connection with Massey University, Crop and Food, and Lincoln University. However this relationship is restricted largely to work on the cultivation of traditional kai and preservation of traditional knowledge. With the establishment of a database, as proposed here, the research connection can extend to, for example, the interface of science and mātauranga Māori (traditional indigenous knowledge), marketing, food technology, and nutrition. Researchers can find products and growers that "fit" with their research interest and contact specialists from Tahuri Whenua. Alternatively, researchers can "advertise" their interests on the database and Tahuri Whenua members and their networks can contact the researchers to meet their needs. 2. Suppliers and secondary producers: Vegetable suppliers to retailers can find local growers of specialist foods by using the database. Traditional foods offer unique delicacies to secondary food producers that can be sold on speciality markets at premium prices. The majority of traditional kai cannot be found anywhere else in the world. 3. Internal networks: The collective will be enabled to communicate their knowledge amongst its members to foster a greater understanding of the cultivation, whakapapa (origins/genealogy), and utility of traditional kai. Tahuri Whenua is in existence because of an identified need to preserve and extend the traditional indigenous knowledge of vegetable growing. Currently this collective is the largest group of Māori food experts in Aotearoa and are located throughout the country. They are actively publishing their knowledge via a website and books however there is not a comprehensive database from which to share knowledge and create and maintain relationships. Currently, knowledge of traditional kai is fractured with clusters of knowledge within iwi, Māori groups, alternative growers, and some individuals. While they are predominantly hua whenua (vegetable) growers, they also have extensive networks with other traditional kai experts. The current Tahuri Whenua chairperson, Dr Nick Roskruge, is a highly regarded Massey University horticulture specialist and is closely linked with the project contact, Dr Geoff Kira. Initially Dr Kira, a Massey University Māori health scientist based at Te Pumanawa Hauora (the Research Centre for Māori Health and Development) will attend

	Tahuri Whenua hui to discuss and agree on the database development and its publication. An information technology developer from Massey University will be employed to develop the database and the website portal in conjunction with Tahuri Whenua representatives. A beta version of the database and website is scheduled to be complete by 1st March 2016. At this stage, the collaborators can provide data entered into tables by email or via the website. The data will then be checked and confirmed by Dr Kira. The complete version of the website is scheduled to be launched on the 20th November 2016. Collaborators from Tahuri Whenua will be asked to donate information that details the cultivation, location, preparation and utility (for example, nutrition, medicine, or tool) of traditional kai. The online resource will be developed to record types of kai, its applications, where it can be found, how it is grown, harvested and prepared. Importantly, information will also be available (where possible) of kawa (protocols) and tikanga (values) that are related to each food and its nutrition value. Additionally, an added value component will be the whanaungatanga (relationships) section, where researchers and growers can advertise, in the portal, their desire to work collaboratively to further their knowledge of their specialist product.