

MATANGIRUA

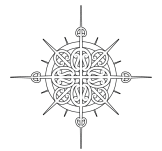
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# He Kākahu Whenua:

A case study of Toha Network  
and East Coast Exchange

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## Executive summary

This Kaupapa Māori research report presents the stories and lived experiences of the whānau behind the establishment of the Toha Network and the East Coast Exchange; and the shared experiences of whānau living at Te Kautuku, a large multiple-owned Māori Land Trust in Te Tairāwhiti near Tikitiki.

This report is written to enable the executive summary and interview section to be extracted and used separately from the whole report, for ease of use.

## Introduction

This is the first Kaupapa Māori research carried out by the FMA, and it speaks to different audiences – whānau, hapū, iwi and Māori, the FMA, and the wider state sector. These stories are important to te ōhanga Māori (the Māori economy) and the wider New Zealand economy.

## Role of the Financial Markets Authority (FMA)

The FMA oversees New Zealand's financial markets to ensure fairness, efficiency, and transparency. It promotes trust and confidence by enforcing conduct laws and helping participants make informed decisions.

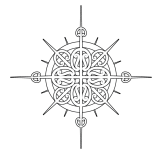
The FMA's Māori strategy, Matangirua, is designed to grow internal capability and support external engagement to enable Māori to participate as Māori in the financial system and in so doing, strengthen the FMA's advocacy and ability to fulfil its regulatory obligations.

## Why the FMA conducted this research

The FMA conducted this research to address knowledge gaps in the FMA and across the sector regarding the experiences of Māori consumers and providers in Aotearoa New Zealand's financial sector. Actionable intelligence is necessary to help the FMA address inequities, and reduce harms, vulnerabilities and risks experienced uniquely or predominantly by Māori consumers. Additionally, through understanding business models that are conducive to a Māori worldview and the unique context and ecosystem in which they operate, the FMA can help facilitate and promote new opportunities to help grow Māori participation in the financial market.

## Introduction to Toha Network

Toha Network is a collaborative ecosystem uniting impact investors, scientists, and communities to drive environmental regeneration, with a special emphasis on te ao Māori values and Indigenous Data Sovereignty. Founded in 2018, Toha bridges frontline communities and investors to tackle challenges like climate change, using a dual-token system: the MAHI token



rewards verified environmental work, while the TOHA token grants rights to data and governance.<sup>4</sup>

Toha has developed Digital Public Infrastructure (DPI)<sup>5</sup> to deliver environmental and economic benefits to East Coast and Gisborne communities during and after Cyclone Gabrielle. The Network powers the East Coast Exchange (ECX) which is the digital, online platform that puts Toha's business model into action.<sup>6</sup>

Its approach centres on rigorous data verification, transparent fund disbursement, and prioritising control over sensitive environmental and community data, especially for Indigenous peoples.

## Toha Network and ECX recognised at G20 Johannesburg, November 2025

The G20 is a forum of 19 countries and the European Union, addressing major global economic issues. It represents about 85 percent of global GDP, over three-quarters of world trade, and two-thirds of the world's population. Focus areas include the economy, climate and climate change, education, health, and more.<sup>7</sup> At the G20 Johannesburg summit in November 2025, the International Environmental Guardianship (IEG) and UNDP launched the 8 Billion-Hour Pledge — a movement to mobilise one hour of verified action for nature from every person on Earth.<sup>8</sup>

ECX and Toha Network supported the Pledge's launch, with Te Kautuku in Tairāwhiti as a demonstration site for the Pledge's community-led action. ECX is committed to growing the Pledge globally.<sup>9</sup>

## Toha Network and Kaupapa Māori methodology

The study focuses on Toha Network's experiences within their community and the financial market, as well as their interactions with the FMA, as they work towards becoming licensed by the FMA. Toha Network was invited to collaborate because of their innovative kaupapa, broad stakeholder network, and unique pre-licensing situation. This helps the FMA develop culturally responsive licensing and oversight that supports Māori economic growth. A Kaupapa Māori approach was chosen because it aligns with the FMA's Māori Strategy, Matangirua and reflects

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<sup>4</sup> Hall, D. (2025, February 26). Impact Investing Network Deep Dive – Toha (Interview with David Hall). *Impact Investing Network Aotearoa New Zealand*.

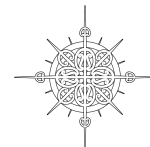
<sup>5</sup> This refers to 'shared, secure and interoperable digital systems' to access digital identity, data sharing, payments and notifications services. In Digital Public Infrastructure for Governments, OECD Public Governance Policy Papers No. 68 December 2024 (p.6)

<sup>6</sup> Ibid.

<sup>7</sup> G20. (2025, November 22). G20. 2023 India. *G20 Background Brief*.

<sup>8</sup> International Environmental Guardianship. (2025). *8 Billion Hour Pledge*. United Nations Development Programme.

<sup>9</sup> East Coast Exchange. (n.d.). What an incredible moment to witness at the G20 in Johannesburg! *LinkedIn*



Toha's focus on te ao Māori values. Kaupapa Māori refers specifically to Māori knowledge, distinct from Pākehā, Western, or translated general knowledge.<sup>10</sup>

## Research aim of the case study

The FMA aimed to work collaboratively with the Toha Network to co-design a Kaupapa Māori case study. The study seeks to gain insights into Toha Network's development, understand the challenges and opportunities they face in the pre-licensing financial context,<sup>11</sup> explore how Māori values shape their operations, and understand why Te Kautuku Trust chose to work with Toha Network.

## Te Kautuku Trust and the structure of this report

Toha Network identified the importance of including Te Kautuku in this study. Te Kautuku is a large multiple-owned Māori Land Trust on the East Coast near Tikitiki, and a partner in their pilot project with Air New Zealand and Te Puni Kōkiri for regenerating the native ecosystem.

Understanding Te Kautuku's journey is essential to fully grasp the mana of Toha Network and ECX, and its significance to Te Kautuku. Consequently, the report starts with a summary of Te Tairāwhiti's social, cultural, and economic background. It then presents interviews with Te Kautuku, highlighting their experiences and insights.

*"Without Toha, Te Kautuku would be in the same position as other land blocks, forced to lease out for grazing, further alienating the whānau from their ancestral lands" (Rangi Raroa, 3<sup>rd</sup> generation Trust manager).*

*"It's important that financial providers try to understand how to work with Māori and the realities Māori face when it comes to multi-owned land rather than just push us aside or put us in the too hard basket" (Esther Raroa, Kaimahi on Te Kautuku).*

## Interviews with Toha Network and the East Coast Exchange (ECX)

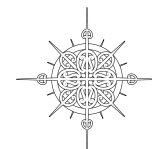
Toha Network is presented through interviews with key individuals. This section describes the establishment, barriers and opportunities of Toha Network and the ECX, as they navigate worldviews, and leverage new uses of data technology to embed te ao Māori values in the marketplace:

*"Although the data technology already exists, its application so far has been shaped by Western financial logic. Toha applies it differently. By embedding*

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<sup>10</sup> Pipi, K., Cram, F., Hawke, R., Hawke, S., Huriwai, Te M., Mataka, T., Milne, M., Morgan, K., Tuhaka, H., and Tuuta, C. (2004, December). 'A Research Ethic for Studying Māori and Iwi Provider Success'. In *Social Policy Journal of New Zealand*, (23). Ministry of Social Development.

<sup>11</sup> Pre-license refers to the preparatory steps and requirements an entity must complete before formally submitting a licence application for registration as a provider of financial services.



*Indigenous values such as reciprocity and collective stewardship, Toha activates an economy based on trust and contribution rather than extraction. This enables markets to recognise goodness – not as a social value – but as a source of measurable, investable impact” (Nathalie Whitaker, co-founder Toha Network, founder, Givealittle).*

*“When people feel empowered, they are capable of miracles and that’s certainly what we need in terms of addressing challenges like climate change and biodiversity loss. We need to unlock that power, that social power” (Dr David Hall, Policy Director, Toha Network).*

*“Our community members expressed a distrust in sharing their identities and information with agents of the Crown. The independent, homegrown identity of ECX has been crucial in enabling users to feel confident in using the platform...” (Renee Raroa, Establishment Director, ECX)*

*“ECX will never exploit data, but funding is harder to find when you refuse to exploit data” (Ralph Chivers, Chair, ECX).*

*“After Cyclone Gabrielle, for every amount received and paid out, people had to do AMLs [Anti Money Laundering declarations]. We thought it was ridiculous in the circumstances to have to AML schools and marae that were actually at the heart of some of the most valuable response and recovery activity” (Ralph Chivers, Chair, ECX).*

## Review of research and selected literature

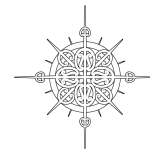
This review provides the background and context for discussion and analysis. Key aspects include fundamental differences between Māori and Western worldviews, the historical development of Māori economic practices, the emergence of Te Ōhanga Māori, ongoing systemic disparities in Aotearoa New Zealand's financial markets; and the call at the Koroneihana 2025 for Mana Motuhake in business and investment.

The literature highlights the central role of values such as whanaungatanga (kinship), mana (leadership), and kaitiakitanga (guardianship), manaakitanga (care and hospitality), tapu (sacred, restricted), and utu (balance, reciprocity) in Māori life. Justice Williams speaks of these values as part of whanaungatanga.<sup>12</sup>

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<sup>12</sup>Joe Williams (3 April 2017) *The Treaty of Waitangi and whānau, hapū and iwi wellbeing* (PowerPoint slides). Keynote address, Te Ritorito 2017: Towards whānau, hapū and iwi wellbeing. Pipitea Marae, Wellington.  
<https://thehub.sia.govt.nz/resources/te-ritorito-2017-towards-whanau-hapu-and-iwi-wellbeing>





## Discussion

The discussion provides an analysis of Toha Network's experiences as a Māori Fintech provider, navigating challenges between worldviews – te ao Māori and Western financial market theory. It explores identified barriers and challenges that often lead to restrictive legislation, inflexible policies and regulatory processes, which contribute towards limiting Māori participation and investment, especially for collectively-owned Māori land. The discussion highlights how Toha Network bridges this gap by embedding te ao Māori values into its business model and operations.

The analysis then draws upon Dr K. Irwin's Te Tiriti o Waitangi Nation-building framework, *Te Aotearoa tangā* - to analyse the interrelated structural, institutional, and interpersonal barriers Māori face in the financial system. It outlines how, through Te Tiriti o Waitangi partnership, collective benefit can be further activated as part of the 'upwards trajectory towards Nation-building.'

## Findings, and insights towards bridging worldviews

### Te Tiriti o Waitangi is foundational in addressing and overcoming barriers

Te Tiriti o Waitangi plays a foundational role in addressing and overcoming structural, legislative, policy, institutional, and interpersonal barriers.

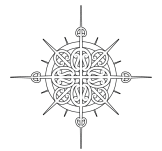
It provides a framework for collaborative problem-solving and shared decision-making between Māori and the Crown. By honouring the Treaty partnership, there is potential to redesign financial systems, policies, and institutions to be more inclusive, equitable, and reflective of te ao Māori values. Te Tiriti o Waitangi provides a practical framework for ensuring Māori knowledge and expertise are visible and valued in the financial system, collective participation is enabled, and that sustainable economic and social outcomes for all individuals and communities in Aotearoa New Zealand are supported.

### Te ao Māori values and digital infrastructure enable new innovations

Toha Network has had to address three over-arching themes that are complex and interwoven: investment for Māori land; climate change and regeneration; and the overarching issue of a marketplace, shaped by Western financial logic, that does not make visible te ao Māori values and collective decision-making.

### Applying te ao Māori values redefines barriers as challenges to be overcome

By embedding te ao Māori principles, fostering innovative partnerships, and embedding Māori Data Sovereignty into their business model, Toha enables Māori landowners to overcome regulatory challenges, diversify land-based revenue, and assert self-determination, while advocating for broader market reforms that recognise collective benefits.



## Recognising the effectiveness of collective processes

Consensus-building processes and their inherent value are often overlooked, creating barriers to collective participation in the market. To enhance Māori participation in the finance market, regulation needs to evolve to better accommodate collective participation, and te ao Māori values that drive decision-making, innovation and entrepreneurship. Financial innovations designed for collective outcomes need a regulatory framework that appropriately considers relevant motivations and risks.

## Regional and relational ecosystems reduce regulatory complexity

This case study reveals that replicated processes can create unnecessary, inequitable regulatory complexity, with administrative burdens on whānau, hapū, iwi and collectively owned Māori entities (for example AML requirements). In contrast, Toha Network is promoting an ecosystem approach, where regulatory and administrative processes are improved by recognising the collective involvement of communities.

Instead of focusing solely on individuals, the system acknowledges group participation and ensures that the roles people play – often across several organisations within the same region – are properly identified and verified. This helps to streamline compliance, fosters collaboration, and reflects the interconnected nature of community activities, making regulatory oversight more effective and meaningful for all involved.

## Toha Network and ECX model and digital infrastructure enables:

### Benefits to Māori that exceed investment returns

Toha Network represents a paradigm shift. Through new digital infrastructure, Toha Network is redefining barriers and failures as challenges to be overcome through enabling markets to recognise te ao Māori values such as *whanaungatanga*, *kaitiakitanga*, *manaakitanga*, *utu*, *mana*, and *community generosity* – not as social values – but as ‘sources of measurable, investable impact.’<sup>13</sup>

### New pathways to access capital on multiple-owned land

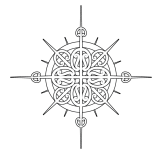
A significant step forward is that Toha’s digital infrastructure enables separation of the data, and its value, from the ownership of the land from which the data is gathered. The concept of data being used as collateral rather than land, aligns with te ao Māori values and is potentially significant for addressing barriers for Māori access to capital. How this works can be seen in the example with Air New Zealand and Te Kautuku.

### Te Kautuku and Air New Zealand

Kaimahi at Te Kautuku make a pledge to undertake nature-based work and to collect associated data. The data is collected via data templates that the East Coast Exchange has

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<sup>13</sup> Interview with Nathalie Whitaker, 30 April 2025.



co-developed with Toha Network. When pledged activities are undertaken and milestones are met, the proceeds from sales of MAHI (digital tokens) are disbursed to Te Kautuku. In this pilot, kaitiakitanga is activated and linked to systems where environmental work supports ecological and financial goals, and links to global environmental directions.

### Opportunities for less extractive land use

As an economic value, data provides an alternative means of funding that is not reliant on extracting the land's resources to fund development, as the value lies in the data, not the resource extracted. Indeed, extractive and/or unsustainable environmental practices that deplete natural resources, may be another type of risk to the value of the data as a growing income stream.

### Opportunities to redefine risk

Not only does the separation of data from land ownership provide Māori landowners with the potential opportunity to finance development without jeopardising their land, but it also frees the ownership of multiple-owned Māori land from the burden of immediate classification as a risk. Further, it affords communities greater control.

### Communities to 'stack' separate units of value

Further, this innovation enables communities to capitalise the value of the original data asset through "stacking," which allows for separate verification and investment for individual environmental benefits. For instance, planting native cover supports carbon sequestration, biodiversity, wildlife restoration, and water quality—each of which can be claimed as an investable asset.

### The development of 'third space' thinking

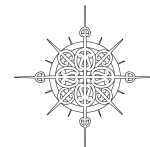
Innovative applications of data can power the growth of new platforms to enable new forms of exchange, providing a permanent platform for communities to organise under new market rules. Designing a new form of community exchange has meant creating new rules that enable new forms of value to be recognised, such as the role of the community navigator.

## A navigator is essential in bridging systems and worldviews

The community navigator role is essential in building trust with the community and to act on behalf of whānau and hapū in navigating financial and regulatory systems. Navigators ground decision-making close to the land, ensuring representation is connected, accountable, and place-based. The navigator demystifies processes, infrastructures, regulatory and legislative complexities and requirements, while translating between Māori and Western worldviews:

*"A navigator needs to have a foot in both worlds to build the bridge. The resourcing is inequitable, a constant push to bring worldviews together in the dataspace, which is at the middle of the design" (Renee Raroa).*





Navigators interact with officials, systems, and organisations, quickly learn new information, and share it effectively. They understand their whānau, hapū, iwi, and community, picking up on subtle communication cues. For example, during the disaster response, the navigator reassured hesitant individuals that the data system was independent and would not share personal details.

## Working with the FMA

Toha Network is an example of how the active application of a Māori worldview is inherent to the design and delivery of a Māori business model, with benefits to Māori and non-Māori. Te ao Māori values are inextricable drivers, determinants and definitions of their success.

## Low-value exemptions and innovations like the sandbox model are instrumental

The Chair of ECX identified the FMA's sandbox trial as instrumental in enabling businesses to access guidance and low-value exemptions, in a controlled environment to test new innovations, without immediately facing the full burden of established regulations. Further, Parliament's Finance and Expenditure Select Committee inquiry into banking competition,<sup>14</sup> identified FMA's regulatory sandbox trial as a key innovation. The Committee's recommendations to address barriers preventing competition in banking and impact of the regulatory environment included the following recommendation:

***“Broaden the “regulatory sandbox” trial** We recommend the Financial Markets Authority broadens its “regulatory sandbox” trial and explore a single licensing model to cut red tape for innovative financial service.”<sup>15</sup>*

While this recommendation is highly relevant to the ongoing development of initiatives like Toha Network and ECX, the FMA would need to ensure any model can accommodate and ensure Māori knowledge, values, customs and practices are applied to Māori business models. Otherwise, existing barriers to Māori providers will remain unaddressed, and additional ones will likely be created.

The sandbox also provides an environment in which the FMA can test and critique its own capability to recognise, understand, and accurately interpret business models that align with a Māori worldview. To effectively license, supervise, and monitor Māori business, and foster opportunities for increased business and product offerings, the FMA must be able to authentically and credibly apply Māori cultural capabilities and worldview expertise.

## Structural and institutional challenges and market failure

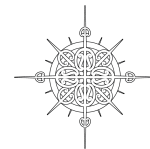
### A dominance of ‘Western financial logic’ in market theory and development

Western worldview dominance in New Zealand's financial and government systems shapes legislation and policies that limit Māori access to capital and credit and restrict Māori innovation

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<sup>14</sup> Finance and Expenditure Select Committee (2025, August). *Final report, Inquiry into Banking Competition*. Parliament. Wellington (pp. 5-6).

<sup>15</sup> Ibid. (p 5).



and investment. Institutional rigidity contributes to siloed data. This affects data quality, creates information gaps, and undermines contract completeness and regulatory compliance. It also causes misalignment between policy settings, growth drivers, and the needs of consumers and providers.

The interpersonal impacts of these barriers contribute to increased economic and social exclusion of Māori providers and consumers, leading to increased financial pressure on whānau and communities. The resulting lack of opportunity in rural Māori communities contributes to their depopulation and loss of vital skills and human capital, with the financial literacy gap increasing vulnerability to riskier alternatives.

Despite efforts to address some of these barriers — such as legal reforms (Te Ture Whenua Māori Act 1993, Anti-Money Laundering and Countering Financing of Terrorism Act 2009) and targeted initiatives to improve Māori access to finance and support Māori businesses — further focussed effort is required to address these barriers and enable Māori providers to innovate and operate effectively in New Zealand's financial markets.

## Towards giving effect to insights that bridge worldviews and market frameworks

While there are significant and systemic structural and institutional barriers, improved digital infrastructure creates opportunities for markets to develop in ways that acknowledge and reward the positive contributions of communities. Nevertheless, for these advancements to succeed and expand, they need to be supported through structural and institutional settings that enable and scale up these developments. For example:

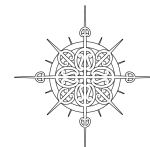
**Recognising the public good aspects of digital public infrastructure and initiatives like Toha** such as environmental sustainability, technology spinoffs, community self-sufficiency, strengthened regional eco-systems that produce collective, long-term benefits, and value-added trade in primary sector exports, warrant support and regulatory relief to improve viability and to increase offerings, scalability and impact.

**Addressing regulatory challenges to enable markets to recognise collective actions** as 'sources of measurable, investable impact'<sup>16</sup> for collective value, and to support the sustainable growth of digital infrastructure initiatives.

**Promoting the adoption and expansion of innovative models such as the FMA regulatory sandbox** and strengthening collaboration between start-ups like Toha and regulatory authorities, will provide regulatory flexibility and reduce compliance burdens to enter the market, especially in disaster response scenarios. This includes working with

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<sup>16</sup> Interview with Nathalie Whitaker, 30 April 2025.



regulators and the Māori Land Court to streamline AML and other compliance requirements, to avoid stifling innovation and entrepreneurship, particularly for Māori landowners and collective or community-led initiatives.

**Establishing data standards that define how collective participation is recorded and reported**, to reflect Māori concepts of collectivisation, and support fair engagement in financial markets. For example, a data standard that recognises Māori collectivisation – defining how collective participation is recorded and reported – so that Māori contribution is visible and valued in the market. Collective engagement and participation foster holistic and place-based financial innovation and economic development.

**Implementing Indigenous Data Sovereignty principles in developing the above data standards** that make te ao Māori values and knowledge visible and valued in financial markets, such as standards for recording and reporting Māori collectivisation and collaborative decision-making.

**Fostering third space thought leadership and platforms to enable fair interaction** between communities, government, and capital by ensuring secure and transparent data flows and leveraging trust. Transparent data-sharing fosters collective participation and enables accurate recognition of value added to the eco-system.

**Designing systems that accommodate consensus-based governance and reduce unnecessary administrative burdens** on collective structures, such as hapū and iwi, but also Māori landowners, trusts and legislated entities such as Post Settlement Governance Entities (PSGE's). Policy justifications should consider the role of Te Tiriti and Tikanga Māori to empower regulated and trusted intermediaries to fulfil regulatory requirements on behalf of collectives, ensuring collective governance and authority is not eroded.

**Promoting the development of comprehensive strategies for scaling digital infrastructure and Indigenous Data Sovereignty** initiatives that ensure robust local control and oversight. This includes investing in the expansion of local data centres and decentralised storage solutions to meet growing demand and enhance community trust.

