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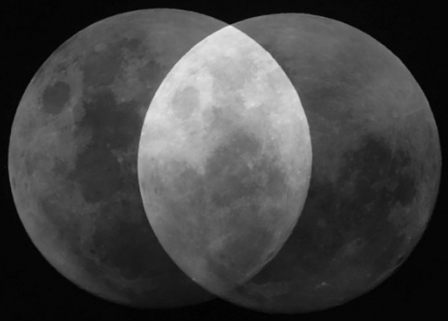
Ngā Pae o te Māramatanga

TECHNICAL REPORT

Analysis of Ngā Pae o te Māramatanga's contribution as a system enabler

June 2026

MATATIHI



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Executive Summary

Commissioned by Ngā Pae o te Māramatanga (NPM) and prepared by Matatihi, this report serves both accountability and investment purposes. It provides a formal assessment of the returns generated by more than two decades of public expenditure, and it assembles the evidence base against which continued investment can be judged.

NPM is Aotearoa New Zealand's Māori Centre of Research Excellence (CoRE) and the only CoRE established specifically to build Māori research capability, Māori-led knowledge production, and Māori research leadership.

NPM has produced a substantial return on more than two decades of public investment. The analysis presented in this report finds that NPM has generated an estimated $533.61 million in total value (the Conservative model plus the Whakapapa Economics model described below), equivalent to $3.74 returned for every dollar invested. A benefit-cost ratio (BCR) compares the present value of benefits with the present value of costs: 1.0 is the break-even point, and any value above 1.0 means benefits exceed costs under the stated assumptions. Even under the narrower and more Conservative model, which counts only benefits that can be monetised through orthodox appraisal methods, NPM generates $330.73 million in value and returns $2.32 for every dollar invested. The pessimistic Conservative stress test still returns $187.71 million and a BCR of 1.32, indicating that the investment remains above break-even when attribution, exposure, duration, and proxy values are weakened simultaneously.

NPM has delivered a positive return generated by an institution that has changed the operating conditions for Māori research in Aotearoa. Since 2002, NPM has helped build the people, knowledge, networks, publishing platforms, policy channels, and Indigenous research infrastructure that now support Māori research excellence nationally and internationally. The evidence supports NPM as a system enabler whose value compounds across researchers, whānau, communities, institutions, and future generations.

The July 2020 CoREs funding mechanism expects CoREs to undertake excellent research, support the development of world-class researchers, and demonstrate academic strength alongside progress towards public good and/or economic benefits (Minister of Education, 2020). NPM's performance meets these expectations directly and, in several areas, exceeds them through its Māori research focus, national capability-building role, international Indigenous research leadership, journals, conferences, policy translation, and durable partner network.

The headline values above are bounded estimates. They leave outside the monetised totals the contribution of NPM to international Indigenous leadership, Indigenous knowledge recognition and authority, reputation effects, the wider research infrastructure roles undertaken by NPM-affiliated researchers, and the flow-on effects for non-Māori researchers, research teams, and organisations whose work becomes more relevant and better grounded in the Aotearoa context through engagement with Māori-led research. These recognised effects are material to the investment case, but they remain outside the monetised totals where there is not yet a sufficiently auditable valuation basis. Table S1 summarises the significant monetised values of NPM.

Table S1. Summary of significant monetised values

Value area	Present value/metric	Interpretation
Total monetised value	$533.61m	Full combined account, including Conservative model benefits and Whakapapa Economics model effects
Programme cost base	$142.65m	Real 2026 cost base used as the denominator
Overall benefit-cost ratio (BCR)	3.74	Full return when relational, whānau, institutional and intergenerational effects are included
Conservative model	$330.73m	Conservative orthodox account using Treasury-aligned CBAx/SROI methods
Conservative BCR	2.32	Conservative floor; remains above break-even under standard appraisal logic
Whakapapa Economics model	$202.88m	Additional value flowing through whānau, community, institutional and intergenerational pathways
Te Kupenga o MAI doctoral pathway	$175.0m	Largest directly observable value driver; based on 580 NPM/MAI-supported doctoral completers
Research and Knowledge pathway	$142.0m	Ten monetised research-to-policy, research-to-practice and knowledge-infrastructure benefit lines
Networking and Convening pathway	$7.37m	Lower-bound monetised value of knowledge exchange and international network infrastructure
Kanapu pathway	$1.49m	Early-stage quantified value from a programme operating for less than 3 years in the evaluation window

The largest single source of measurable value is the Te Kupenga Māori and Indigenous (MAI) doctoral pathway. The model counts at least 580 Māori doctoral completers supported through a national capability-building initiative administrated by NPM between 2002 and 2024. The present value of this pathway is $175.0 million, or approximately $301,685 per completer. This figure is conservative, however. It credits only 35% of the observed doctoral earnings differential to the NPM/MAI pathway, with the balance attributed to other actors, treated as deadweight, or residual uncertainty.

The 580 figure should be read carefully. It combines 427 directly confirmed completers from NPM records with 153 extrapolated from internal programme documents; it excludes people whose support cannot be linked strongly enough to the modelling dataset. The report, therefore, presents the cohort as *at least* 580 and treats it as a model-supported cohort, with no claim that every scholar influenced by Te Kupenga o MAI has been counted. It also differs from earlier national statements, such as the 500 Māori PhD goal, which mixed enrolled and conferred figures in some public and policy uses (NPM, n.d.); this report counts only the supported cohort that can be modelled with sufficient discipline.

The Research and Knowledge pathway contributes a further $142.0 million in present value. This account is built from 10 monetised case pathways that include a named NPM-supported research programme, documented end-user or policy/practice adoption, and a defensible transfer source. These 10 lines should be read as the auditable monetisable subset of a much wider NPM research programme. The largest line is the Matariki public holiday, valued at $63.20 million, with NPM attribution set at only 1.0% over the legislated horizon. Research investment leverage contributes

$34.99 million, reflecting NZIER-verified co-funding, named grants, and Crown investment linked to NPM-supported research foundations. Other monetised cases include health system improvement, environmental management at Ahuriri Estuary, Te Kotahitanga school achievement uplift, marae hazard resilience, te reo Māori policy improvement, kapa haka wellbeing evidence, sustainable housing innovation, and scholarly journal infrastructure.

The case study evidence shows the breadth of NPM's influence. NPM-supported research has contributed to the Zero–Passive–Active (ZePA) language planning framework adopted by multiple agencies, Kaupapa Māori epidemiology adopted by the Ministry of Health, Whare Uku housing innovation, Te Kotahitanga teacher professional development, the Ahuriri Estuary management plan, the national marae hazard dataset covering 869 marae, the kapa haka wellbeing evidence base, leadership of the Māori Data Governance Model, Te Hiku's te reo speech-recognition infrastructure, and legal scholarship associated with Te Urewera and Te Awa Tupua. These examples span education, health, environment, language, culture, governance, law, and research infrastructure. Several are discussed as qualitative or future-model candidates in the report because the valuation literature is still developing. The reported totals are therefore cautious.

The Whakapapa Economics model (Matatihi, 2026b), a framework for expressing Māori economic and social value in terms derived from whakapapa, mauri, tapu, and reciprocity, explains why the orthodox Conservative model understates NPM's full contribution. The conventional cost-benefit analysis (CBAx) and social return on investment (SROI) methods are strongest where benefits can be tracked to individuals, fiscal flows, replacement costs, or published transfer values. They are weaker where value moves through whānau, relationships, cultural legitimacy, institutional change, and intergenerational transmission. The Whakapapa Economics model adds these effects in a disciplined way. It contributes $202.88 million beyond the Conservative model, dominated by whānau economic resilience; tamariki tertiary attainment uplift; whānau health and support-burden reduction; peer spillover into Kanapu, NPM's research, science and innovation / science, innovation and technology (RSI/SIT) workforce development programme; supervision and mentoring capacity; cultural affirmation; and Māori governance capability.

The Whakapapa Economics model aligns with how NPM works. A doctoral graduate becomes an individual earner, supervisor, mentor, whānau resource, role model, governance contributor, and part of a wider shift in the legitimacy of Māori scholarship. A conference generates delegate-day productivity, a sense of belonging, collaboration, knowledge transmission, and international Indigenous solidarity. A journal provides a publishing service and the infrastructure through which Māori and Indigenous knowledge become visible, citable and durable.

NPM's system-enabling role is visible in its operating footprint. In 2024, it operated through 21 partner entities, supported 400+ MAI scholars across 14 sites, delivered 634 peer-reviewed outputs, and convened the International Indigenous Research Conference (IIRC) with 661 delegates and more than 250 sessions. *AlterNative: An International Journal of Indigenous Peoples* recorded more than 326,000 full-text downloads in 2024, while *MAI Journal* recorded 64,000 views and 28,000 active users. Available 2025 publishing indicators supplied by NPM show further reach: *AlterNative* publishes internationally as a leading Indigenous scholarly journal with SAGE, and has contributions from 50 countries, more than 1,500 contributors, and approximately 350,000 downloads; *MAI Journal* recorded more than 10,000 DOI accesses in a month and almost 70,000 readers. NPM has also expanded its international reach through

relationships with the Global Indigenous Data Alliance, the Atlantic Fellows for Social Equity, the Association of Pacific Rim Universities, and the Tri-Academy Partnership on Indigenous Engagement.

Kanapu is an early-stage system pathway with a modest monetised value due to its relative newness. Established in 2022, Kanapu is designed to make the RSI/SIT system more visible, legible and navigable for Māori. The model records $1.49 million in present value across a 425-person active-engagement cohort, with value driven mainly by subjective wellbeing uplift, postgraduate progression, and early labour-market transition. The report treats this conservatively because longer-term employment, income, enrolment and wellbeing tracking is not yet available. The current reading is that Kanapu has proof-of-concept value and significant upside as evidence matures.

The Conservative model applies explicit attribution, embeds deadweight and business-as-usual assumptions, caps benefit durations, separates private and fiscal incidence, and does not account for pathway-level cost allocation. Even under the highly pessimistic Conservative scenario, where attribution, exposure, duration, and proxy values are simultaneously weakened, NPM still returns $187.71 million and a BCR of 1.32. This is an important finding as it demonstrates that the investment case is robust under deliberately weakened assumptions.

NPM has delivered measurable public value and built infrastructure that would be difficult and costly to re-create if interrupted. The partner network, journals, convening platforms, doctoral pipeline, research-to-policy channels, and Kaupapa Māori methodological infrastructure are now national assets. They support Māori research excellence, strengthen the tertiary and research system, improve the relevance of non-Māori research carried out in Aotearoa, and give effect to forms of value that standard appraisal frameworks only partially see.

The evidence supports NPM as a critical system enabler. The orthodox Conservative model shows that the investment pays for itself more than twice over. The Whakapapa Parent account shows that the more realistic return is closer to $3.74 for every dollar invested. The remaining unmonetised evidence indicates additional value far beyond the quantified accounts, so the reported total should be read as a defensible estimate of the value that can be counted with methodological discipline and not as a full picture of value created by NPM.

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Abbreviations

ACC	Accident Compensation Corporation
APRU	Association of Pacific Rim Universities
BAU	business-as-usual
BCR	benefit-cost ratio
CoRE	Centre of Research Excellence
CPI	Consumer Price Index
EMRIP	Expert Mechanism on the Rights of Indigenous Peoples
GIDA	Global Indigenous Data Alliance
MAI	Māori and Indigenous
MBIE	Ministry of Business, Innovation and Employment
NPM	Ngā Pae o te Māramatanga
PMSITAC	Prime Minister's Science, Innovation and Technology Advisory Council
PV	present value
QALY	quality-adjusted life-year
RCT	randomised controlled trial
ROI	return on investment
RSI/SIT	research, science and innovation / science, innovation and technology
SROI	social return on investment
TEC	Tertiary Education Commission
TES	Tertiary Education Strategy
ToC	theory of change
WELLBY	wellbeing year
ZePA	Zero–Passive–Active

1. Introduction

Ngā Pae o te Māramatanga (NPM) is Aotearoa New Zealand's Māori Centre of Research Excellence (CoRE) and the only CoRE established specifically to build Māori research capability, Māori-led knowledge production, and Māori research leadership. Since 2002, public investment in NPM has supported a national platform for research, doctoral development, knowledge exchange, and institutional collaboration.

Commissioned by NPM and prepared by Matatihi, this report serves both accountability and investment purposes. It provides a formal assessment of the returns generated by more than two decades of public expenditure, and it assembles the evidence base against which continued investment can be judged.

This evaluation is informed by Whakapapa Economics, a Kaupapa Māori approach to impact assessment that treats value as relational, cumulative and intergenerational (see Matatihi, n.d.). Whakapapa Economics addresses a core limitation in conventional cost-benefit analysis (CBAx) and social return on investment (SROI) tools, which can understate Māori outcomes by truncating impact at the immediate beneficiary, even when change is carried through whānau, communities, institutions, cultural practice, and future generations.

In this report, Whakapapa Economics provides the wider interpretive architecture for the analysis: it broadens the impact boundary in a disciplined way, grounded in Māori concepts of relationship, obligation, wellbeing and continuity, while still requiring explicit causal pathways, conservative attribution, double-count safeguards and transparent treatment of uncertainty. The intention is to align evidential standards more closely with how impact is generated and transmitted in Māori contexts. For an institution such as NPM, capability, knowledge sovereignty, policy influence, and intergenerational leadership are material outcomes even when they cannot all be captured in a single financial measure (New Zealand Treasury, 2024; Nicholls et al., 2012; Social Value International, 2025).

NPM sits within the Tertiary Education Commission (TEC)'s CoREs framework and is therefore assessed against formal government expectations as well as against impact and value. The July 2020 CoREs funding mechanism states that the purpose of a CoRE is to undertake excellent research, support the development of world-class researchers in areas of importance to New Zealand's future development, and demonstrate academic strength alongside progress towards impacts with public good and/or economic benefits (Minister of Education, 2020). The same determination requires selection through a competitive TEC process that assesses excellence; contribution within the tertiary education system; contribution to New Zealand's future development; governance and management; collaboration; national and international influence; equity and wellbeing outcomes; and stakeholder engagement and research translation. It also requires at least one CoRE focused on Māori research to be selected through the competitive process.

NPM's contribution has already been documented through successive evaluations and a substantial evidence base (Allison & Clough, 2014; Smyth et al., 2013). The Ministry of Education's CoRE evaluation found evidence of strategic impact, collaboration, growing research output, and doctoral capability building. The research impact evaluation by the New Zealand Institute of Economic Research (Allison & Clough, 2014) found extensive formal and informal

cooperation across institutions, community engagement in around 80% of surveyed research, community initiation of just under half of research questions, and additional direct funding for just under half of projects, averaging about $160,000 per project. Subsequent NPM work, including the Aropū and Te Arotahi series, and the 2025–2026 Integrated Data Infrastructure (IDI)-based analysis of Māori and Pacific PhD outcomes, has strengthened that picture. This report brings those strands together in a single, structured assessment of total return (Allison & Clough, 2014; Kokaua et al., 2025; Pihama et al., 2019; Smyth et al., 2013).

The CoREs framework is one of New Zealand's most selective and strategically significant tertiary research funding mechanisms. The CoRE fund was established to encourage collaborative, strategically focused research of national importance while reducing fragmentation across the tertiary education and research system. The formal funding mechanism makes the competitive context explicit: a tertiary education institution applies on behalf of a proposed CoRE, the TEC determines the competitive process, and applications are assessed against the mission statement and criteria set by government (Minister of Education, 2020). The funding model carries explicit accountability expectations. The CoRE Performance Measurement Framework, for example, requires centres to demonstrate progress through both quantitative reporting and narrative evidence, and periodic review processes assess whether public investment is delivering the intended research, capability and impact outcomes. The requirement to evidence value is therefore built into the fund's architecture (Minister of Education, 2020; TEC, 2020).

The current policy environment gives those expectations added urgency. The Tertiary Education Strategy (TES) 2025–2030 explicitly frames the tertiary system as central to an innovative, high-productivity economy (Ministry of Education, 2025), while a report by the Science System Advisory Group (2025) places renewed emphasis on impact, integration, and the contribution of the science and innovation system to national development.

At the same time, Māori education policy continues to stress the importance of equitable and excellent outcomes for Māori learners and meaningful engagement with whānau, hapū and iwi (Ministry of Education, 2024b). For Māori-focused institutions, these expectations converge at a time when the value and rationale of dedicated Māori research investment are under active policy scrutiny. The evidence marshalled in this report supports the conclusion that NPM approaches this environment from a position of demonstrable strength. The analysis is retrospective in its coverage, but forward-facing in purpose: it consolidates evidence of NPM's contribution precisely when the case for sustained investment must be made most clearly.

2. Overview: Ngā Pae o te Māramatanga

2.1 NPM Origins and Role in the Research System

The name Ngā Pae o te Māramatanga translates as "horizons of insight" and was gifted by Professor Sir Hirini Moko Mead. NPM was established in 2002 as Aotearoa New Zealand's Māori CoRE distinguished by te reo, tikanga and mātauranga Māori, and by its extensive network of Māori researchers, communities and partners. Its mission is to grow and enhance excellent Māori researchers and Māori-led research that together build the foundations for flourishing Māori futures. This mission is expressed through a vision that seeks to cherish and celebrate flourishing Māori futures, grow responsible economic and environmental relationships, influence positive change for healthy and meaningful Māori lives, nurture wise and ethical Māori technological transformations, inspire Māori and Indigenous research and excellence, and connect with partners for impact and transformative change. Underpinning this mission and vision are the values of rangatiratanga, kaitiakitanga, manaakitanga and whanaungatanga, which together emphasise leadership with integrity, responsible care for people and place, respect for all life forces, and the importance of genuine and enduring relationships.

NPM is funded by the TEC and hosted by Waipapa Taumata Rau | the University of Auckland. NPM was one of seven CoREs established by the government to strengthen collaborative research across tertiary institutions and to improve the research performance of New Zealand's universities (Smyth et al., 2013). Its establishment also has to be read in light of the distinctive conditions facing Māori research at the time. A 20th-anniversary feature published in *The Spinoff* records that the original Māori CoRE bid was assembled with limited resources (Muru-Lanning, 2021). At the time, Māori scholars were working in an environment where mātauranga Māori was marginalised, and Māori researchers were often isolated within institutions, disciplines and projects. That founding context is material to the value assessed in this report: NPM had to build foundations whereas the other CoREs could draw from existing disciplinary and institutional infrastructure.

NPM is best understood as a national research platform and system enabler. Its role has been to convene a dispersed research community, build Māori research capability, support Māori-led research excellence, and strengthen the translation of research into public, community, and policy value. External evaluation has consistently highlighted the importance of building a national network of participating research entities and creating a critical mass of Māori researchers that did not previously exist in a coordinated form (Allison & Clough, 2014; Smyth et al., 2013). NPM's founding participating research entities were the University of Auckland, University of Otago, Victoria University of Wellington, the University of Waikato, Te Wānanga o Aotearoa, Te Whare Wānanga o Awanuiārangi, Manaaki Whenua Landcare Research, and Auckland War Memorial Museum—a base that has subsequently expanded to 21 formal partner entities, a scale that reflects the progressive deepening of NPM's reach and national significance.

The CoRE funding structure has shaped how NPM has had to plan and re-plan its work. CoREs are funded through time-limited competitive rounds, historically around 6–7.5 years and now up to 8 years under the 2020 mechanism, with mid-term reviews and periodic rebids creating uncertainty well before the end of a contract period (Minister of Education, 2020). For NPM, this has meant refreshing research strategies, priorities, and programme architecture across successive funding cycles while sustaining long-run capability-building functions that require

continuity beyond any single contract. This context matters when interpreting changes in research themes, project portfolios, and programme labels over time.

2.2 Impact Pathways

Understanding NPM's contribution requires looking across its four impact pathways together (see Table 1). The pathways were designed to be mutually reinforcing over 25 years of operation. Māori and Indigenous (MAI) scholars move into the research programmes that funded their development and supervise the next cohort. The Research and Knowledge pathway carries the research outputs and knowledge-translation function that those scholars sustain and draw on. The Networking and Convening infrastructure amplifies what the research and people pathways produce, brokering co-funding relationships and giving Māori-led research a collective visibility in policy settings that individual projects cannot achieve alone. Kanapu connects the workforce that MAI has built into the research, science and innovation / science, innovation and technology (RSI/SIT) system, and the relationships it forms feed back into NPM's wider research partnerships and priorities. The result is that NPM's total contribution exceeds the sum of its parts and grows stronger over time, distinguishing it from a conventional research funder.

Table 1. Breakdown of NPM impact pathways

Pathway	**Overview**
People, Capability and Leadership (Te Kupenga o MAI)	NPM's flagship people-development pathway since 2002, Te Kupenga o MAI supports Māori postgraduate and doctoral researchers through culturally grounded spaces, wānanga, retreats, mentoring, training, scholarships and grants. It seeks to strengthen Māori research capability, improve completion and belonging, reduce isolation, and build the intergenerational leadership pipeline that feeds Māori supervision, academic leadership, national research infrastructure participation and wider system influence.
Research and Knowledge Impact	This is NPM's main research and translation pathway, generating Māori-led research and actively moving it into policy, practice, public debate, and community use. Organised through the four Pae and guided by the four Pātai (see below), it combines research production with dissemination through journals, policy papers, community engagement, media, and other knowledge-sharing channels, across areas including education, health, environment, language, culture, governance, law, and research infrastructure.
Networking and Convening	This pathway provides the connective and international infrastructure across the other three. Through partner relationships, conferences, journals, publishing platforms, Indigenous networks, policy fora and broader collaboration relationships, it extends the reach and influence of NPM's research, people development, and activity. It is also the pathway through which NPM's role as a national and international Indigenous research system enabler is most visible.
Kanapu: RSI/SIT Navigation and Talent Pathways	Established in 2022, Kanapu is a Kaupapa Māori platform designed to help Māori navigate, access and lead within the RSI/SIT system. Through mentoring, wānanga, project development and relationship brokering, it seeks to lower barriers to participation, create clearer entry points into the system, and strengthen Māori leadership and community-to-system connection in a more culturally grounded way.

2.3 Research Approach

NPM research, organised under its Matakitenga research programme, is designed to address real-world challenges facing Māori in ways that are both Māori-determined and Māori-inspired. This is a deliberate approach to knowledge creation in which research excellence, community relevance, and cultural integrity are treated as mutually reinforcing. Through this approach, NPM supports research grounded in enduring relationships and contributing to the growth of mana, understood as respect and regard, and mauri, understood as the life essence of the world we inhabit. In this way, the research programme generates new knowledge while strengthening the people, communities, environments and systems to which that knowledge is connected.

The programme is organised through four Te Ao Māori knowledge and excellence clusters, or Pae, which provide the primary architecture for NPM's research activity:

- **Pae Ahurei – Living Uniquely** centres research that cherishes and celebrates distinctively Māori futures.
- **Pae Tawhiti – Living Lightly** focuses on growing responsible social, economic and environmental relationships.
- **Pae Ora – Living Well** supports research that influences positive change for healthy and meaningful lives.
- **Pae Auaha – Living Smartly** is concerned with nurturing wise and ethical technological transformations.

Collectively, the four Pae organise NPM's expertise in a way that is expansive, connected and responsive to the breadth of contemporary Māori aspirations and challenges.

This research architecture is further integrated by four Pātai, or critical systems-oriented questions, which provide the intellectual and strategic through-line for the programme. The Pātai are intended to generate transformative interventions and policy advice for stakeholders and next users, while ensuring that individual projects contribute to a coherent wider programme of work.

- **Pātai Te Ao Māori** asks: How can te reo, tikanga and mātauranga continue to inform our futures?
- **Pātai Whānau** asks: How can whānau wellbeing be realised in everyday life?
- **Pātai Mauri** asks: How can mātauranga inform and drive sustainable and just societal practices?
- **Pātai Puāwai** asks: How can research be used transformatively to accelerate the achievement of flourishing Māori futures?

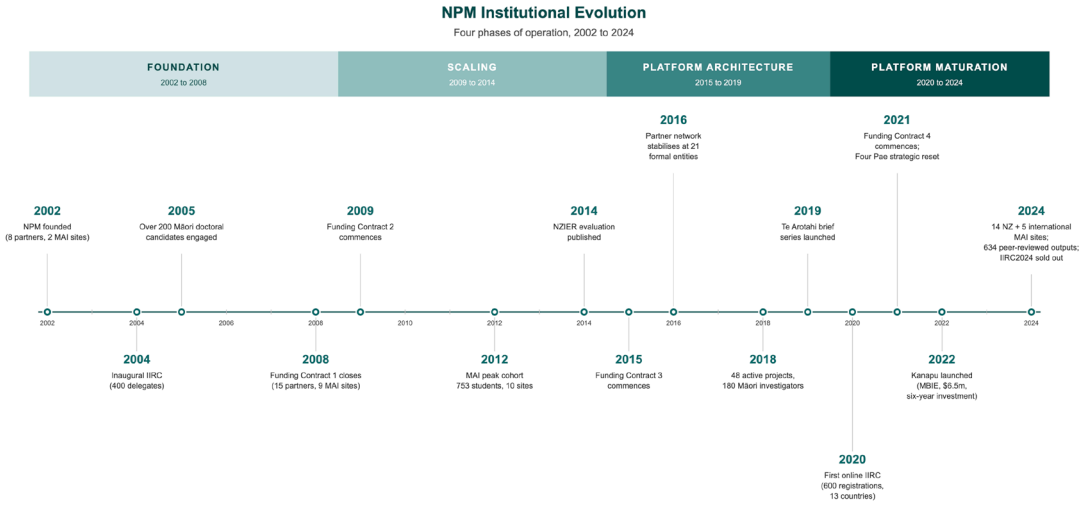
Together, the four Pae and four Pātai ensure that NPM's research does more than produce isolated outputs. They create a coherent programme structure through which mātauranga-informed theories, models and evidence-based solutions can be generated, connected and synthesised for next-stage impact and outcomes. This gives NPM's research both depth and strategic clarity: depth, because it remains grounded in Māori values, relationships and ways of knowing; and strategic clarity, because it is organised to support translation, influence and transformative change over time.

2.4 Organisational Development

NPM has delivered consistently over the 22 years covered by this evaluation through four TEC funding contracts, amid significant changes in the tertiary research landscape, and during a global pandemic. The CoRE has matured across four observable phases. Unless otherwise indicated, data in this chapter are taken from NPM annual reports published between 2002 and 2024.

CoRE funding cycles are part of the organisational story. NPM has had to refresh priorities and programme architecture across successive competitive rounds and mid-term reviews, while carrying the uncertainty associated with time-limited 6–8-year funding. This has required periodic shifts from demonstration projects to scaling to strategic research architecture to the Four Pae and Pātai model, while maintaining a longer-term capability pipeline that cannot be rebuilt quickly if interrupted.

Figure 1. Annotated timeline of NPM institutional evolution, 2002–2024



2.4.1 Establishment and Foundations (2002–2008)

NPM's establishment resulted from a period of advocacy and bid development led by Professor Graham Hingangaroa Smith (Ngāti Apa, Ngāti Kahungunu, Te Aitanga a Hauiti, Kāti Māmoe) and colleagues. The initial proposal was assembled as a wholly Māori bid from the University of Auckland. NPM was selected from 45 original applicants, shortlisted to 11 centres, and was one of five CoREs selected in the Crown's inaugural funding round announced in March 2002 (Muru-Lanning, 2021). NPM was established with eight participating research entities and a first-generation research programme built around six demonstration projects.

The principal focus in this period was establishing legitimacy, convening a dispersed Māori research community, building the initial doctoral capability pipeline, and creating the first layers of Māori and Indigenous research infrastructure. Te Kupenga o MAI grew from two sites in 2002 to nine by 2008. NPM's inaugural International Indigenous Research Conference (IIRC) in 2004 drew approximately 400 delegates. *AlterNative: An International Journal of Indigenous Peoples* was established in 2005, creating a peer-reviewed venue for Indigenous scholarship, and *MAI Review* (subsequently renamed *MAI Journal* in 2012) was established as an early open-access Māori research platform. Over 200 Māori doctoral candidates were engaged from 2004 to 2005 (NPM,

2005). By the close of the first funding contract in 2008, the participating entity base had expanded to 15.

2.4.2 Scaling (2009–2014)

The second funding contract supported a substantial scaling of both research production and doctoral participation. Te Kupenga o MAI expanded to 10 sites by 2012 and recorded a peak annual cohort of 753 students. Research output rose from 59 outputs in 2003 to over 500 by 2014. *AlterNative*, *MAI Review / MAI Journal* and the IIRC series together gave NPM an early international infrastructure role, making Māori and Indigenous research visible, citable and convened in ways that were rare globally at the time. The 2014 independent evaluation undertaken by NZIER described impacts as often localised and highly relevant to Māori communities, and identified extensive formal and informal cooperation across institutions, around 80% community engagement in surveyed research, and additional direct funding of approximately $160,000 per project in around half of surveyed projects (Allison & Clough, 2014).

2.4.3 Organisational Architecture (2015–2019)

This phase opened with a moment of institutional discontinuity. In 2014, NPM was not initially shortlisted by the Royal Society of New Zealand Te Apārangi for further CoRE funding. A period of sustained advocacy by Māori researchers, the wider academic community, and political engagement led to a 5-year funding continuation announced in the 2014 Budget, and the Centre was re-awarded funding through a further rebid process in May 2015 (Muru-Lanning, 2021). In the period that followed, NPM consolidated its partner network to 21 formal partner entities and expanded research output and project scale. In 2018, 48 projects with 180 Māori investigators were active across the portfolio, and in 2019 the Te Arotahi series was launched as a dedicated research translation vehicle. The 7th IIRC in 2016 drew more than 500 participants from over 100 tribal nations. Annual research output ranged between about 300 and 450 outputs a year from 2015 to 2018, reaching 420 in 2018.

2.4.4 Organisational Maturation (2020–present)

The fourth phase has been defined by the 2021 four Pae strategic reset, the 2022 launch of Kanapu as a distinct Ministry of Business, Innovation and Employment (MBIE)-funded programme, and continued delivery through the 2020 and 2021 COVID-19 pandemic period. Doctoral capability has moved from a pipeline-building phase to a supervision-producing phase, with 12 new professors across five universities recorded in 2022 and seven more in 2023. *AlterNative* full-text downloads rose from approximately 140,700 in 2020 to 2021 to 326,050 in 2024. IIRC 2024 sold out, with 661 delegates and more than 250 sessions. NPM expanded its international reach, building strong relationships with the Global Indigenous Data Alliance (GIDA), the Atlantic Fellows for Social Equity, the Association of Pacific Rim Universities (APRU) and the Tri-Academy Partnership on Indigenous Engagement. By 2024, the MAI network included 14 New Zealand sites and five international connections, supporting more than 400 scholars. Available 2025 indicators show *AlterNative* publishing internationally with SAGE across 50 countries, more than 1,500 contributors and approximately 350,000 downloads, while *MAI Journal* recorded more than 10,000 DOI accesses in a month and almost 70,000 readers.

Leadership of NPM across these four phases has been held by a succession of directors and co-directors. The founding co-directorship was held by Professors Linda Tuhiwai Smith and Michael Walker. Subsequent directors and co-directors have included Professors Tracey McIntosh, Te Ahukaramū Charles Royal, Jacinta Ruru, and Linda Waimarie Nikora. Professor Melinda Webber began transitioning to the Pou Matarua role in 2024, and Professor Linda Waimarie Nikora formally left the role in June 2025; the current co-directorship is held by Professors Tahu Kukutai and Melinda Webber (NPM, 2025).

The cumulative effect of this evolution is a mature platform whose current shape reflects more than a scaled version of its 2002 form. NPM in 2024 delivered 18 live Matakitenga research projects, 634 peer-reviewed outputs, and supported more than 400 MAI scholars across a distributed network, supported by a research workforce of 230 staff at 50.84 FTE and 107 Māori principal investigators.

This arc of development from founding to maturation is itself part of what this report evaluates. It also includes academic promotions, shifts in institutional staffing priorities, increased visibility for Māori academics and researchers, and the creation of venues for recognition and progression through conferences, workshops, peer-reviewed publications, research grants, and external funding relationships (Table 2).

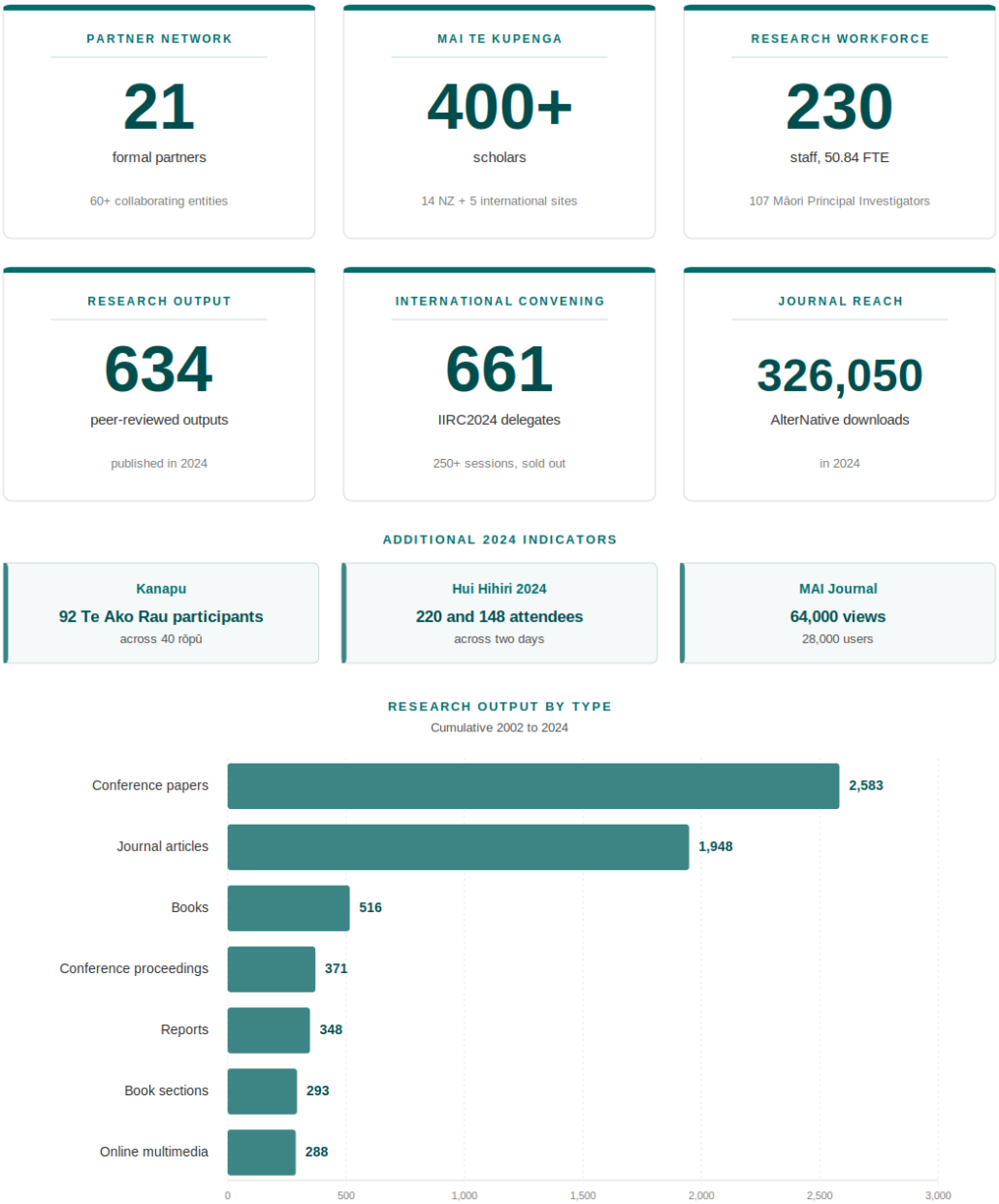
Table 2. Selected growth indicators across CoRE phases

Phase / funding cycle	**Selected research programme scale**	**System-enabling significance**
Establishment and foundations (2002–2008)	Six demonstration projects; eight participating research entities expanding to 15; Te Kupenga o MAI from two to nine sites; more than 200 Māori doctoral candidates engaged by 2004–2005; IIRC launched with approximately 400 delegates.	Built the first coordinated national platform for Māori research capability; established early Indigenous research infrastructure through IIRC, *AlterNative* and *MAI Review*.
Scaling (2009–2014)	Te Kupenga o MAI expanded to 10 sites and recorded a peak annual cohort of 753; research outputs rose from 59 in 2003 to over 500 by 2014; NZIER identified extensive community engagement and average additional co-funding of about $160,000 in around half of surveyed projects.	Moved NPM from foundation-building to critical mass; strengthened the national Māori research pipeline and created evidence of research-to-practice reach.
Organisational architecture (2015–2019)	Partner network consolidated to 21 entities; 48 active projects and 180 Māori investigators in 2018; Te Arotahi launched in 2019; IIRC 2016 drew more than 500 participants from over 100 tribal nations.	Established the architecture for research translation, international Indigenous scholarly exchange and multi-institutional collaboration.
Organisational maturation (2020–2024)	Four Pae strategic reset; Kanapu launched; 18 live Matakitenga projects in 2024; 634 peer-reviewed outputs; more than 400 MAI scholars; IIRC 2024 hosted 661 delegates and more than 250 sessions.	Shifted capability from pipeline creation towards supervision, leadership, research translation and international Indigenous network leverage.
Post-window indicators (2025 context)	*AlterNative* publishes internationally with SAGE across 50 countries, more than 1,500 contributors and approximately 350,000 downloads; *MAI Journal* records more than 10,000 DOI accesses in a month and almost 70,000 readers.	Shows that NPM's journal and dissemination infrastructure continues to operate as global Indigenous scholarly infrastructure beyond the monetised evaluation window.

2.5 Current Footprint

The institutional shape described across the preceding sections can be read at a glance through the 2024 operating footprint shown in Figure 2, which presents NPM's current scale across the four pathways, its partner and research workforce, its publication and convening reach, and its international footprint.

Figure 2. NPM operating footprint and cumulative research output, 2002–2024



The indicators above describe an organisation operating at a national scale across four mutually reinforcing pathways, with substantive international reach and a research workforce of sufficient depth to sustain delivery across multiple funding cycles. The downstream chapters of this report value the social and economic returns produced by this footprint. The purpose of this chapter has been to outline the nature and functions of NPM as a CoRE before that valuation begins.

3. Theory of Change

This chapter sets out an organisational theory of change (ToC) for NPM, outlining how the Centre contributes to flourishing Māori futures through its four interrelated and reinforcing pathways. The ToC was constructed for this evaluation rather than as a standalone strategic document for NPM. It has been constructed to clarify the causal logic and identify evidence and key outcomes (see Table 3).

Table 3. NPM's theory of change across logic model components and its four associated pathways

	People and Capability	**Research and Knowledge**	**Networking and Convening**	**Kanapu (RIS/SIT)**
Inputs	TEC funding; MAI site network; mentors & supervisors; scholarships & internships; tikanga pedagogy	TEC funding; Māori research networks; partner institutions; Kaupapa Māori frameworks; community relationships	TEC funding; 21 partners; NPM secretariat; journals (*AlterNative*, *MAI*); international networks	MBIE ($6.5m); Kanapu team; NPM networks; digital platforms; RSI/SIT agency relationships
Activities	Coordinate MAI sites; deliver wānanga & retreats; award scholarships; connect scholars to projects; develop leadership	Fund & enable Māori-led research; support co-production; broker transdisciplinary teams; publish; engage policy	Convene partner governance; host IIRC; steward journals; broker co-funding; represent Māori research in policy	Deliver Te Ako Rau; convene Hui Hihiri; provide mentoring; develop tools & resources; provide system feedback
Outputs	400+ MAI scholars (2024); 14 sites; 21 completions (2024); annual retreats & doctoral conferences	634 peer-reviewed outputs (2024); 52 projects (2019); Te Arotahi series; community-facing resources	IIRC 2024: 661 delegates / 250+ sessions; *AlterNative*: 326,350 downloads; *MAI Journal*: 64,000 views	92 Te Ako Rau participants / 40 rōpū; 11 mātanga talks / 960 registrations; 220 & 148 Hui Hihiri attendees over 2 days (2024)
Short-term outcomes	Increased Māori participation; improved skills & confidence; reduced isolation; financial support accessed	New evidence produced; increased visibility; strengthened research–community relationships	Stronger collaboration; increased reach of Māori scholarship; opportunities for co-design and co-funding	Increased RSI/SIT awareness; stronger networks; improved confidence; connection to role models
Intermediate outcomes	Higher completion rates; Māori research workforce grows; leadership transitions; PhD employment gains	Research informs policy & practice; new services & tools; growth in data sovereignty; leverage of further funding	Greater co-funding leverage; collective policy influence; institutions embed Kaupapa Māori; international access	More Māori in RSI/SIT leadership; more Māori-led proposals funded; RSI/SIT system more Māori-responsive
Long-term impacts	Critical mass of Māori research leaders; intergenerational capability pipeline; reduced higher education inequities	Mātauranga Māori embedded in research, policy & practice; Tiriti-aligned knowledge systems	Durable national Māori research ecosystem; NZ as global Indigenous research hub; system-level Tiriti alignment	RSI/SIT system supports Māori to thrive; Māori innovation leadership; reduced structural barriers

3.1 Service Rationale

NPM was established to address persistent disparities and unmet needs facing Māori in research, education, health, and socio-economic wellbeing. Past mainstream research and policy often overlooked mātauranga Māori and Māori voices, resulting in solutions that failed to fully reach or benefit Māori communities. Māori have faced lower academic attainment, under-representation in advanced research roles, and inequities in health and prosperity compared to non-Māori. For instance, prior to NPM's efforts, very few Māori were engaged in doctoral research, and critical issues for whānau and iwi went unaddressed by conventional research. Without a dedicated Māori research platform, these disparities would likely persist or worsen. Māori communities would continue to experience compromised health, cultural erosion, and limited economic opportunities, and Aotearoa would lose the rich potential of Māori knowledge and talent. Retaining the status quo would mean that research and innovation systems would remain fragmented, and business-as-usual would fail to deliver solutions tailored to Māori realities.

3.2 Inputs

Inputs are the assets invested by NPM and its funders to enable the programme to operate. They define what is committed in order to generate activities and, ultimately, outcomes. NPM's inputs span funding, people, infrastructure, partnerships and tools, CoRE funding (MBIE Kanapu contract, external research contracts), and partner co-funding. Infrastructure includes *AlterNative*, *MAI Journal*, the Te Arotahi and Aropū series, and TEC Performance Measurement Framework reporting systems. Partnerships extend from 21 formal consortium members and Crown agencies (TEC, MBIE, and others) to deep iwi, hapū, and hāpori relationships built over two decades, and to international Indigenous networks, including United Nations (UN) forums, APRU, and the IIRC series. Underpinning all activity are the Kaupapa Māori and mātauranga Māori frameworks that govern research design and data sovereignty, as well as named scholarships and internships.

3.3 Activities

NPM funds and enables Māori-led research through competitive investment rounds, transdisciplinary team facilitation, community co-production, methodological support, and policy translation via the Te Arotahi and Aropū series. It publishes *AlterNative* and *MAI Journal*, develops Māori data governance practices, and disseminates findings through conferences, media, and public engagement. Through Te Kupenga o MAI, NPM coordinates 14 national sites, delivers wānanga, writing retreats, and doctoral conferences, administers scholarships and internships, connects scholars to funded projects, and builds a tuākana–tēina alumni pipeline. Through Kanapu, NPM co-designs and delivers the Te Ako Rau mentoring programme, convenes national and regional Hui Hihiri, provides mentoring and brokerage, hosts mātanga talks, and develops practical navigation tools for Māori in the RSI/SIT system. Across its network, NPM convenes Te Tira Takimano partner governance, hosts the IIRC series, brokers co-funding and collaboration across 21 partner entities, and represents Māori research interests in national policy settings and international Indigenous forums.

3.4 Outputs

NPM's research and knowledge outputs have grown substantially over two decades, from 22 journal articles and six demonstration projects in 2004–2005 to 634 peer-reviewed outputs and 18 live Matakitenga projects by 2024, alongside continuous delivery of the Te Arotahi and Aropū series, 250+ presentations annually as well as community-facing tools and frameworks. Te Kupenga o MAI has grown from two sites in 2002 to 14 sites supporting 400+ scholars, with 21 postgraduate completions (including eight doctoral) in 2024 alone, annual writing retreats, doctoral conferences, and 20 two-year NPM PhD scholarships since 2021, alongside many other scholarships, completion awards, internships, and development supports over the wider evaluation period. In 2024, Kanapu delivered four rounds of Te Ako Rau to 92 participants across 40 rōpū, with 17 rōpū progressing to Te Ako Rau+ (a follow-on mentoring support package), 11 mātanga talks attracting 960 registrations, and a national Hui Hihiri drawing 220 and 148 attendees across two days. Networking and Convening outputs include IIRC 2024 (661 delegates, 250+ sessions), *AlterNative* (86 papers, 326,350 downloads, authors from 17 countries), *MAI Journal* (64,000 views, 28,000 active users), and co-funding leverage of approximately $160,000 per project, with external research contracts of $3.4 million (2017) and $3.0 million (2019).

3.5 Outcomes

NPM's outcomes unfold over time across its four reinforcing impact pathways, and their effects are cumulative rather than separate. Across its pathways, NPM increases the production, visibility and accessibility of Māori-led knowledge, including mātauranga Māori-informed theories, methods, measures, data governance approaches, and early solutions tested through pilots or prototypes. It also strengthens trust, co-design and ethical relationships between researchers and communities. At the same time, NPM increases Māori participation, retention and progression in postgraduate and doctoral research by reducing financial, cultural and practical barriers; improves research skills, confidence, wellbeing, and cultural safety; and supports early-professional outputs, stronger supervision, and durable peer and mentor networks. Through Kanapu and wider convening activities, NPM also improves understanding of RSI/SIT pathways; connects Māori participants to mentors, funders and institutions; and expands access to journals, conferences, networks, and shared frameworks for Māori-led research excellence.

In the short term, the main outcomes are increased knowledge, participation, connection and visibility. Māori-led evidence becomes more available and more usable through publications, presentations, policy products, and community-facing resources. Māori scholars gain practical support, stronger peer relationships, and clearer pathways into research and innovation. Communities, researchers and institutions become better connected, and Māori aspirations for science, innovation and technology are more clearly articulated. These early gains create the platform for later influence and system change.

Over the medium term, these gains begin to shift behaviour, institutions and decision-making. Research is increasingly used in policy, law, practice, education and iwi and community settings, contributing to new or improved services, tools and institutional practices. Independent evaluation has already documented practice and policy improvements among end users across the majority of NPM projects. Capability-building pathways produce higher Māori postgraduate

completion rates; stronger transitions into postdoctoral, academic and leadership roles; and a larger, more connected Māori research workforce with greater supervision and mentoring capacity. Population-level evidence also shows that PhD attainment is associated with better employment, earnings, homeownership, and volunteerism among Māori graduates (Kokaua et al., 2025; NPM, 2026). Across RSI/SIT, more Māori move into leadership and funded project roles, organisations become more Māori-responsive, and feedback loops between Māori communities and decision-makers improve. At the same time, network effects deepen through greater co-authorship, co-funding, collective influence, international connection, and additional cash and in-kind leverage.

In the long term, NPM is intended to contribute to sustained structural change. This includes the advancement and embedding of mātauranga Māori and Māori worldviews in research, policy and practice; a critical mass of Māori research leaders and knowledge holders across disciplines and sectors; and a research ecosystem that routinely supports Māori-led work and better honours Te Tiriti o Waitangi. The longer-term aim is an intergenerational pipeline of Māori researchers and leaders; improved outcomes across social, cultural, economic, environmental, and technological domains aligned with the four Pae (see Chapter 2); and a durable national ecosystem for Māori-led research excellence and capability-building that remains resilient beyond individual funding cycles. In this state, Aotearoa is also better positioned as a global centre for Indigenous research and Indigenous rights leadership.

3.6 External Factors

External factors are conditions outside NPM's direct control that influence whether, how, and to what degree outcomes are realised. Their explicit acknowledgement is a critical element of credible impact analysis: it demonstrates that NPM's claimed outcomes are grounded in an honest assessment of the enabling conditions required and supports appropriate risk and scenario management. NPM's outcomes are shaped by conditions beyond its direct control. These include shifts in government policy, research, and tertiary funding settings, and wider science system reform, all of which can either enable or constrain progress. Broader economic conditions also influence demand for Māori-led research, the availability of co-funding, and the feasibility of postgraduate study for Māori learners. In addition, outcomes depend on universities and research institutions being willing and able to support Māori participation, recognise Kaupapa Māori approaches, and create pathways for Māori researchers to advance into senior roles. Community context matters equally: the strength of trust, relationships, local capability, and the resourcing of iwi, hapū and hāpori all affect the extent to which research can be co-designed, used and translated into impact.

3.7 Assumptions

Assumptions are the explicit and implicit beliefs about how and why NPM's ToC works. They underpin the causal logic of the ToC and must hold for the causal chain from inputs to impacts to operate as intended. Making assumptions explicit is a requirement of impact analysis and supports appropriate attribution and prevents over-claiming. It assumes that Māori communities value and want the kinds of research NPM supports, and that research grounded in mātauranga Māori and Kaupapa Māori approaches is more relevant, trusted and useful for Māori communities and organisations. It also assumes that Māori learners and researchers will take up

opportunities when financial, cultural and practical barriers are reduced, and that those supported through NPM will remain engaged in Māori-focused research, leadership, and community contribution over time. A further assumption is that high-quality research, when communicated in accessible and culturally appropriate ways, will be taken up by policymakers, practitioners, iwi and communities. Finally, the model assumes that partner institutions will continue to provide enabling environments and that core investment, including TEC and Kanapu funding, will remain sufficiently stable to sustain the pathways through which NPM creates impact.

4. Methodology

4.1 NPM's Contribution to Kaupapa Māori Research Methodology

This evaluation recognises the immense intellectual knowledge and tradition it is evaluating. NPM has itself been part of the research infrastructure through which Kaupapa Māori methodology has been developed, tested, sustained and legitimised within Aotearoa and internationally. That contribution is closely associated with the work of leading Māori scholars connected to NPM, including Distinguished Professor Linda Tuhiwai Smith (Ngāti Awa, Ngāti Porou, and Tūhourangi), whose *Decolonizing Methodologies* (1999) helped establish a foundational critique of conventional research practice and a positive methodological agenda for Indigenous research. Distinguished Professor Sir Mason Durie (Rangitāne, Ngāti Kauwhata, Ngāti Raukawa), an NPM ruānuku/patron, reframed Māori health through his Te Whare Tapa Whā model of health as a four-dimensional construct (taha tinana, hinengaro, whānau, wairua) that has since become foundational to New Zealand health and social policy, and he subsequently developed the Whānau Ora framework through the 2010 Taskforce on Whānau-Centred Initiatives.

Distinguished Professor Linda Tuhiwai Smith is also an NPM ruānuku/patron, giving the Centre a direct intellectual connection to the Kaupapa Māori and decolonising methodological tradition it has helped sustain. Distinguished Professor Graham Hingangaroa Smith (Ngāti Apa, Ngāti Kahungunu, Te Aitanga a Hauiti, Kāti Māmoe) articulated Kaupapa Māori theory and praxis, and with his design of the MAI doctoral programme later delivered through NPM he has provided both the epistemological scaffolding and the institutional infrastructure through which successive cohorts of Māori researchers have been trained. The legal scholarship of Professor Jacinta Ruru (Raukawa, Ngāti Ranginui) contributed to the conceptual foundations of the Te Urewera Act 2014 and Te Awa Tupua Act 2017, introducing legal personhood for natural entities as a globally unprecedented legal innovation. Professor Tahu Kukutai (Ngāti Tiipa, Ngāti Kinohaku, Te Aupōuri) co-founded Te Mana Raraunga – the Māori Data Sovereignty Network and co-edited *Indigenous Data Sovereignty: Toward an Agenda* (Kukutai & Taylor, 2016; Te Mana Raraunga, 2018). Alongside her leadership of the 2023 Māori Data Governance Model, she has established Māori and Indigenous data sovereignty as both a scholarly field and a Crown-facing policy framework.

Accordingly, the methodology used in this evaluation is inspired by the same principles NPM has helped embed in the research landscape: research by Māori, with Māori, and for Māori; cultural context treated as methodologically central rather than peripheral; and value understood as collective, relational, and often intergenerational. As noted at the start of this report, this evaluation applies a Whakapapa Economics lens in recognition that conventional methods often

focus on individuals and narrowly defined cohorts, neglecting important impacts that ripple through whānau and communities.

4.2 Evaluative Approach

This evaluation explores the social and economic return generated by NPM between 2002 and 2024. It applies CBAx disciplines and an SROI framing within a broader Te Ao Māori evaluative lens. The evaluation applies a broader lens to avoid systematically excluding the collective, relational, cultural, and system-level effects through which value is created and sustained. In a Māori research context, the effects of investment often extend well beyond immediately measurable individual outcomes. They include capability development, pathway creation, strengthened networks, increased visibility and legitimacy of mātauranga Māori, and longer-term shifts in the RSI/SIT system.

The framing set in Chapter 3, in which NPM is understood as an integrated Māori research platform whose value often moves through collective, relational, and intergenerational channels, requires a methodological approach capable of holding that complexity while maintaining analytical discipline. This evaluation situates itself within a Whakapapa Economics approach (Matatihi, n.d.), within the domain of Te Ao Māori Impact Science, and operationalises that position through the Whakapapa Impact Framework.

Whakapapa Economics is presented here as an applied perspective that emphasises the value of the ongoing relationships among people, whānau, culture, place, institutions, and time (Graham, 2009; Hēnare, 2001, 2014; Roberts et al., 2004; Te Rito, 2007). For NPM, this positioning matters because the organisation has been funded for more than two decades to build precisely the relational and institutional infrastructure, doctoral pipelines, research partnerships, journal platforms, convening networks, and the legitimacy of mātauranga Māori in academic settings through which value is created, accumulated and transmitted across generations, and which mainstream approaches can often under-recognise (Durie, 1994, 1999, 2001, 2006; New Zealand Treasury, 2024; Smith, 1999).

Whakapapa Economics is used here as a contemporary applied framing for economic reasoning grounded in whakapapa, relational obligation, and intergenerational consequence. Its intellectual whakapapa sits within older bodies of mātauranga, tikanga, Kaupapa Māori research, and Māori economic thought. Whakapapa provides an ordering logic for relationships, identity and knowledge (Graham, 2009; Roberts et al., 2004; Te Rito, 2007). Mana, mauri, hau, wairua and tapu are concepts that evaluate standing, vitality, reciprocity, and relational integrity (Hēnare, 2001, 2014; Marsden, 2003). Kaupapa Māori and decolonising methodologies locate research authority with Māori and require cultural context to shape the research frame itself (Kerr, 2012; Pihama et al., 2002; Smith, 1999).

The economic foundations of Whakapapa Economics are also established. Hēnare's (2001) economy of mana, Spiller et al.'s (2011) account of relational wellbeing and an ethic of care, Dell et al.'s (2018) economy of mana discussion, Mika et al.'s (2022) manahau theory of value, and J. Reid et al.'s (2023) tauutuutu account all position value as relational, reciprocal, multidimensional, and temporally extended. Applied literatures on family spillovers, education externalities, shared values, distributional evaluation, realist evaluation, and contribution analysis also support the inclusion of wider pathways when the mechanism, cohort, attribution, and overlap boundary can

be specified (Al-Janabi et al., 2016; Kenter et al., 2016; Mayne, 2012; Moretti, 2004; Pawson & Tilley, 1997; Wittenberg et al., 2019).

Whakapapa Economics' connection to SROI is direct. SROI is a principles-based social value accounting approach that requires stakeholders to be involved, changes to be understood, material outcomes to be valued, over-claiming to be avoided, assumptions to be made transparent, and results to be appropriately verified (Social Value International, 2025). The Whakapapa Economics model follows those same disciplines: explicit outcomes, conservative attribution, deadweight, double-count safeguards, sensitivity testing, and transparent proxy selection. Its distinctive contribution is boundary specification: it identifies the whānau, institutional, cultural, and intergenerational pathways through which a Kaupapa Māori research initiative creates value and then models only those pathways that can be specified with sufficient rigour.

The Whakapapa Impact Framework used in this report is a Whakapapa Economics operational model designed for this evaluation and refined from Matatihi's (2026a, 2026b) wider applied impact-modelling work. Its roots lie in the scholarship above, while the specific line structure, attribution scoring, overlap controls, and parent-account presentation were constructed for NPM. The framework uses the same modelling disciplines as SROI-style impact accounting, while widening the pathway boundary to assess direct effects transmitted through whānau, relationships, institutions, cultural legitimacy, and future generations.

The central modelling rule applied is pathway monetisation. The model prices observable material pathways rather than Māori concepts themselves. It values outcomes such as increased agency, reduced hardship burden, whānau knowledge transfer, supervision capacity, institutional legitimacy, research uptake, cultural affirmation, and future educational attainment. This protects conceptual integrity while making relational value visible in investment decisions.

Table 4. Impact layers of the Whakapapa Impact Framework

Impact layer	**Description**	**Population**
Direct	Immediate outcome on the participant or recipient	Participant / recipient
Indirect (whānau / close relational)	Relational transmission to whānau and close networks	Whānau, partners, direct mentees
Induced (community / institutional)	Effects mediated through institutions, programmes, communities	Hapū, iwi, institutions, organised communities
Systemic	Effects on sectors, systems, infrastructure, norms	Sectors, systems, policy domains, professional fields
Intergenerational	Effects transmitted across generations	Mokopuna and succeeding generations

Whakapapa Economics provides the broader evaluative framework within which the SROI and CBAx disciplines are applied. Monetised, quantified, non-monetised, and qualitative types of evidence sit alongside one another, each used where most appropriate to the outcome being assessed. The sections that follow set out how this architecture is operationalised and how evidence is tiered, attributed and reported.

4.3 Analytical Approach

This evaluation is organised around two linked value accounts rather than a single undifferentiated model. The first is the Conservative model, which provides the conservative economic floor by applying orthodox New Zealand Treasury CBAx and SROI disciplines to those aspects of NPM's contribution that can be specified, attributed and monetised within existing economic frames (New Zealand Treasury, 2022; 2023a; 2023b). The second is the Whakapapa Economics model, which sits above the Conservative model as a parent account and extends the analysis to additional forms of value that move through whānau, relationships, institutions, and longer intergenerational pathways that conventional methods do not readily capture. The Conservative model, therefore, provides the orthodox benefit-cost ratio (BCR) for the evaluation, while the Whakapapa Economics model provides a wider and more realistic reading of NPM's contribution within a Māori evaluative frame. Taken together, the two models allow the report to retain orthodox evidential discipline while also recognising the fuller shape of value created through NPM.

4.3.1 Conservative Model

The Conservative model is the evaluation's floor, constructed using established economic evaluation disciplines applied consistently across NPM's four impact pathways. It is built from three analytical layers (see Table 5). Tier 1 comprises individual-level CBAx models for cohorts whose participation in NPM can be specified with confidence, principally the Te Kupenga o MAI doctoral and pre-doctoral cohorts and the Kanapu RSI/SIT cohort. Tier 2 comprises programme- and system-level valuations for outcomes that are real and material but cannot be attributed to a trackable individual cohort, including research-to-practice translation, research leverage, journal infrastructure, convening value, and selected policy and cultural participation outcomes.

Tiers 1 and 2 are then brought together in an organisational-level synthesis in which total monetised present values (PVs) are compared with the total cost of operating NPM across the 2002–2024 evaluation period. Private earnings benefits are reported net of income tax and Accident Compensation Corporation (ACC) earner levies. The fiscal companion lines report the Crown revenue component of the same gross earnings uplift. The two are separated by incidence and are not additional to a gross earnings measure. Under this convention, the private line, the fiscal line, and their sum carry distinct meanings: the private line is the after-tax disposable income accruing to the individual; the fiscal line is the Crown revenue share; and the sum is the gross earnings uplift. Summing gross earnings with the tax component would double-count the same economic value.

Table 5. Modelling dimensions underpinning the NPM Conservative model

Tier	Description of approach	Pathways
Tier 1: Individual-level CBAx	Treasury-aligned cohort-level CBAx applied to trackable individual participants. Monetises direct outcomes using segment share, success rate, units per person, and an economic proxy value per unit of outcome.	Te Kupenga o MAI; Kanapu
Tier 2: Programme- and system-level valuations	A set of complementary valuation techniques applied to outcomes that are real and material but cannot be attributed to a trackable individual cohort.	Research and Knowledge; Networking and Convening
Organisational synthesis	Aggregation of all Tier 1 and Tier 2 monetised PVs against the total cost base, with NPM treated as a cohort of one. No further attribution adjustments are applied at this level, because those adjustments have already been embedded upstream.	Te Kupenga o MAI; Kanapu; Research and Knowledge; Networking and Convening

Tier 1: CBAx

This level covers direct individual-level outcomes for cohorts whose participation can be specified with sufficient confidence. In this evaluation, that includes the Te Kupenga o MAI pathway—doctoral completions and the pre-doctoral pathway of master's, honours and internships—and the Kanapu pathway. For these pathways, standalone CBAx models are constructed using standard cohort logic. Each monetised benefit is specified through a consistent structure:

- **Definition and benefit overview:** Concise statement of the outcome being valued and the real-world change it represents for those within the programme context.
- **Segment share:** The proportion of the cohort for whom the outcome is plausibly relevant and reachable in each year of analysis.
- **Success rate:** The share of the segment that achieves the intended change, given delivery effectiveness and uptake.
- **Units per person / cohort member per annum:** The average magnitude of change realised per successful participant within a year (e.g., fraction of attainment, events avoided, or quality-adjusted life-years [QALYs] gained).
- **Population-level impact:** The total outcome units delivered in a year, calculated as cohort × segment share × success rate × units per person.
- **Economic proxy and value in real 2026 $NZD (Consumer Price Index [CPI]-adjusted where necessary):** The CBAx-aligned dollar value applied per unit of outcome, expressed in CPI-adjusted 2026 dollars and sourced from Treasury guidance or closely matched literature where CBAx lacks a direct proxy.

Attribution, deadweight, displacement, and business-as-usual (BAU) are embedded in the three CBAx parameters of segment share, success rate, and units per person. Drop-off is reflected through year-by-year tapering. Rather than applying separate deadweight or attribution adjustments, BAU and overlap are embedded directly in the CBAx parameters.

Segment share is defined conservatively to include only those plausibly exposed to the outcome pathway beyond BAU. Success rate reflects the probability that those in the segment achieve the intended change relative to what would have happened anyway, implicitly netting off BAU effects and limiting claims to realistic conversion. Units per person are set at small, tapering values to

capture modest marginal gains beyond BAU and to avoid double-counting with related outcomes.

Sensitivity tests are applied to demonstrate robustness across pessimistic, base, and optimistic scenarios. Population-level benefit is then calculated from those component parts. Their purpose is to estimate the PV of direct, trackable changes such as earnings, employment, qualification progression, and selected wellbeing outcomes. Costs are not entered at this level; they are brought together only in the organisational synthesis.

The Treasury's CBAx guidelines permit benefits to persist beyond the active delivery year, provided that decay rates are evidence-based (New Zealand Treasury, 2024). We supply retention factors (Year 1 = 1.00) to transparently summarise how much of each outcome's effect remains in later years. These figures are not used as inputs to the CBAx workbook because the taper is already embedded in the year-by-year parameters. For each outcome, the Year 2 and Year 3 retention factors are calculated by comparing each year's settings to Year 1 thus:

> (Segment Share^{t} _/ Segment Share^{1}) × (Success Rate^{t} _/ Success Rate^{1}) × (Units-per-Person^{t} / Units-per-Person^{1})

The cohort size cancels out, so the result is a simple proportion of the Year 1 effect (e.g., 0.27 means 27% of the Year 1 effect persists). This provides a clear summary of persistence without duplicating or altering the CBAx calculations.

Tier 2: Programme and System Level

Tier 2 covers outcomes that are real and material but cannot be attributed to a trackable individual cohort. These include research-to-practice impacts, research leverage, journal infrastructure, convening value, partner and network effects, and selected policy and cultural participation outcomes. For these benefit lines, the evaluation applies a mix of approaches, including benefit transfer, efficiency gain, replacement cost, leverage, and related valuation approaches. Because NPM operates as a system enabler rather than a direct service provider, Tier 2 depends on explicit attribution equations and conservative counterfactual assumptions to identify the share of observed benefit that can reasonably be credited to NPM.

Organisational Level

Once all Tier 1 and Tier 2 benefit lines are quantified, they are brought together into a single organisational-level cost-benefit synthesis. This is the master model that produces the headline BCR and net PV for NPM as an organisation. The organisational model treats NPM as a cohort of one. Total benefits are the sum of all monetised PVs already established upstream. Total costs are the all-source costs of operating NPM across the 2002–2024 evaluation period, expressed as a real 2026 cost base. Because attribution, deadweight, and related adjustments have already been built into the individual CBAx models and the programme-and system-level valuation lines, the organisational model does not apply a second round of segment-share or success-rate adjustments. At that level, those parameters are effectively set to 100% to avoid double adjustment and to ensure the organisational BCR reflects the already-attributed and already-conservative benefit pool.

4.3.2 Whakapapa Economics Model

The Whakapapa Economics model was constructed as a parent account that sits above the Conservative model. The Conservative model BCR is retained as the audit anchor, while the Whakapapa Economics model adds value transmitted through the whānau, relational, institutional, and intergenerational pathways that the Conservative model does not capture well. The resulting extension PV is then combined with the Conservative model PV and assessed against the same fixed cost base.

Modelling Approach

Each active monetised line in the Whakapapa Economics model was calculated using a common formula:

$$\text{Line PV} = \text{Unit Value} \times \text{Cohort} \times \text{Attribution}$$

The unit value was derived from the selected proxy route, whether a direct proxy, a bridging proxy, or an existing NPM value. Where the underlying proxy was an annual value, it was converted into a lump-sum PV using the appropriate annuity factor; where it was already a lifetime PV, that step was omitted. The resulting unit value was then multiplied by the quantified cohort for the line and by the committed attribution share. Once all active lines were calculated, the line PVs were summed to produce the total model PV.

Table 6 captures the structure for most lines. Four line types carry additional structure. Bridge-class lines apply an explicit construct-fit discount factor to the unit value, reflecting that the library row used as a proxy is adjacent to rather than direct for the outcome being valued. The direct-mentoring line uses a per-completer PV rather than a library row, with Te Kupenga o MAI attribution already embedded in the Conservative model's calculation and flagged to avoid double application. The recurrent convening line applies bounded decay and a repeat-attendance cap within the cohort multiplication to prevent unbounded accumulation.

Table 6. Dimensions of modelling calculations applied to each benefit line within the Whakapapa Economics model

Component	Description	How it was built
Unit value	The per-beneficiary PV of the outcome	Started with the selected proxy row or existing NPM value, then applied any required modifiers before converting to PV
Cohort	The number of people, households, roles, pairs, or events experiencing the benefit	Taken from programme records or conservative cohort assumptions
Attribution	The share of the outcome reasonably attributable to NPM	Confirmed through the six-criteria scoring process, then tested using the rival-cause vs catalytic-channel method

Attribution is the most methodologically deliberate component of the Whakapapa Economics model. It was applied at the pathway level, reflecting the aggregate catalytic character of each NPM programme rather than a line-level causal calibration. In this report, a catalytic mechanism means a programme mechanism that activates, strengthens or legitimises channels through which others then help carry the impact. The term is used descriptively within the logic of contribution

analysis and realist evaluation, where impact is assessed through contribution to a pathway of change in a system with multiple actors (Mayne, 2012; Pawson & Tilley, 1997).

Each of NPM's four impact pathways—Te Kupenga o MAI (doctoral scholarships), Research and Knowledge (the research outputs and knowledge-translation function), Networking and Convening (including IIRC, Hui Hihiri and related activities), and Kanapu (Māori research and innovation placements)—has a distinct causal signature based on its programme design, the intensity of NPM involvement, its uniqueness relative to BAU provision, the depth of tikanga embedded in its delivery, the durability of its effects, and the strength of the evidence base supporting it. These programme-level properties determined the committed attribution rate for all lines within each pathway. A line's attribution is therefore not a line-specific estimate; it is a pathway-level parameter that the line inherits.

Two considerations drove this design choice. First, the benefit lines within each pathway share a common causal origin: multiple MAI lines flow from the same catalytic mechanism in the Māori doctoral pipeline, multiple Kanapu lines flow from the same placement-programme mechanism, and so on. Reading attribution at the pathway level is consistent with how the value was actually produced. Second, line-specific attribution rates derived from inevitably imperfect per-line scoring would introduce a form of false precision that the available evidence cannot support. A pathway-level rate is more consistent about what is and is not known.

A six-criteria scoring process was applied to every active line as a per-line check to ensure the pathway rate falls within a defensible attribution band for that line (see Table 7). Each criterion was scored on a 0–2 scale, producing a total score between 0 and 12.

These scores were then translated into an attribution band (see Table 8). This scoring process did not, by itself, determine the final attribution percentage. Rather, it established the reasonable range within which the line should sit. The next step was to determine where within that band the line belonged.

Table 7. Criteria used to score attribution per benefit line

Criterion	What it assessed	Why it mattered
Intensity and dosage of NPM involvement	How directly and strongly NPM was involved in producing the outcome	Higher-intensity involvement supported a stronger attribution claim
Uniqueness relative to BAU	Whether the effect would likely have occurred anyway without NPM	Helped distinguish genuinely additional value from background change
Extent of tikanga and whakapapa embedded in the mechanism	How far the outcome depended on Māori-specific ways of working and relational practice	Recognised that some outcomes were only possible because of the Kaupapa Māori form of delivery
Whānau, hapū and iwi co-delivery	The degree to which the outcome was produced through Māori collective and relational structures	Helped confirm whether NPM's role was deeply embedded rather than peripheral
Durability and institutionalisation of the effect	Whether the change was temporary or embedded in ongoing roles, relationships or systems	More durable effects justified stronger attribution within the band
Strength and triangulation of the evidence base	The quality, consistency and breadth of evidence supporting the line	Ensured that attribution remained grounded in evidence rather than assertion

Table 8. Attribution bands used after scoring

Total attribution score	Attribution range (potential)	Interpretation
0–3	20–35%	Low attribution band
4–6	35–50%	Moderate attribution band
7–9	50–65%	Strong attribution band
10–12	65–80%	Very strong attribution band

Once a line had been placed into an attribution band, the model then tested whether other actors involved in the outcome should be treated as rival causes or catalytic channels (Table 8). This step mattered because the model did not automatically reduce attribution where other institutions or actors were involved in producing the outcome.

This distinction was particularly important in pathways such as the Māori doctoral pipeline. Māori doctoral completions depended on both Te Kupenga o MAI and university institutions. However, much of the Māori-specific capability that universities were drawing on had itself been built through MAI. In that context, the university was treated, in part, as a channel activated by NPM. The model, therefore, used a catalytic-channel reading where appropriate, with automatic dilution reserved for cases where another actor could plausibly have produced the same outcome independently. The rival-cause versus catalytic-channel assessment is shown in Table 9, and the committed pathway attribution rates applied are shown in Table 10.

Table 9. Rival-cause vs catalytic-channel test applied at the pathway level

Attribution test category	What it means	Effect on the final committed share
Rival cause	Another actor could plausibly have produced the same outcome independently of NPM	Committed rate sits at the lower end of the defensible range
Catalytic channel	Another actor mattered, but NPM had helped create or activate the channel through which the outcome occurred	Committed rate sits at the upper end of the defensible range

Table 10. Committed attribution rate applied at the pathway level

Pathway	Committed rate	Basis
Te Kupenga o MAI (MAI)	65%	Upper end of the 50–65% band; catalytic-channel reading of university co-delivery
Kanapu (RSI/SIT)	37.5%	Mid-band for 35–50% range; greater rival-cause density than MAI (host institution programme design also contributes materially)
Networking and Convening	47.5%	Mid-band for 35–50% range; catalytic for delegate mauri-refresh but with rival causes in broader academic convening networks
Research and Knowledge	60%	Upper end of the 50–65% band; slightly below MAI to reflect stronger rival-cause pressure from iwi-led research, external contestable funds investment (MBIE, Health Research Council, Marsden Fund and related sources), and universities' own Māori research capability

These rates are committed pathway-level settings. They were not set as generic defaults; they were arrived at through the scoring process and the catalytic-channel test applied to each pathway. The six-criteria scoring was then applied to each of the 14 active lines. For most lines, the per-line score places the line in a band that contains, or is immediately adjacent to, its pathway-level committed rate. In those cases, the pathway rate is directly defensible at the line level. For a small number of lines, the per-line score produces a band that does not contain the pathway rate. These divergences are reported transparently in Table 11.

The pattern of divergences warrants direct comment. Three of the four out-of-band lines are in the conservative direction: RSI/SIT governance capacity and research collaboration stock in the Kanapu pathway score into the 50–65% band but are committed at the 37.5% pathway rate, and cultural affirmation in the Networking and Convening pathway scores into the 65–80% band but is committed at 47.5%. The portfolio effect of these divergences is modest and skews conservative. The three under-attributed lines together contribute approximately 8% of the extension value and would attract higher attribution under a strict line-level reading. The single over-attributed line contributes modestly to the overall PV. The pathway-uniform approach, therefore, produces a modestly conservative aggregate attribution relative to the line-level scoring, rather than inflating it.

Table 11. Benefit line scoring check against pathway committed rate

Benefit line	Pathway rate	Line score	Scored band	Check
Tamariki tertiary attainment uplift	MAI 65%	12	65–80%	In band (lower end)—conservative
Whānau educational climate and tertiary navigation uplift	MAI 65%	9	50–65%	In band (upper end)—aligned
Whānau economic resilience and hardship-burden reduction	MAI 65%	11	65–80%	In band (lower end)—conservative
Whānau health, stress and support-burden	MAI 65%	9	50–65%	In band (upper end)—aligned
Direct tuākana–tēina mentoring pipeline	MAI 65%	12	65–80%	In band; MAI embedded via Conservative model
Māori supervision and institutional pipeline capacity	MAI 65%	10	65–80%	In band (lower end)—conservative
Reduced cultural taxation and Māori academic retention	MAI 65%	8	50–65%	In band (upper end)—aligned
Māori governance capability and service-fit improvement	MAI 65%	10	65–80%	In band (lower end)—conservative
Intergenerational educational mobility (scenario)	MAI 65%	10	65–80%	In band (lower end)
Peer participation spillover into RSI/SIT entry	Kanapu 37.5%	7	50–65%	Below band—committed rate conservative vs score
Māori RSI/SIT governance capability and system responsiveness	Kanapu 37.5%	8	50–65%	Below band—committed rate conservative vs score
Cultural affirmation, belonging and bounded refresh effect	Networking and Convening 47.5%	10	65–80%	Below band—committed rate conservative vs score
Collaboration stock and repeat partnership formation	Research and Knowledge 60%	7	50–65%	In band (upper end)—aligned
Research legitimacy and Māori-led uptake in communities	Research and Knowledge 60%	7	50–65%	In band (upper end)—aligned

Taken together, the model is structurally simple and methodologically disciplined. Each line required a defined value source, a clearly bounded cohort, an explicit attribution share, and a documented fence against overlap. The model then applied the same formula across all active lines, summed the results, and combined them with the Conservative model to produce the parent account. The final figures are built from a consistent line-by-line process applied across the entire model.

4.4 Sensitivity Analysis and Overlap Management

The Conservative model and Whakapapa Economics model both address uncertainty through structured sensitivity testing and explicit management of overlap. For this evaluation, all benefit lines were tested across pessimistic, central, and optimistic scenarios (see Table 12). The central case is intended to represent the most defensible reading of the available evidence rather than a midpoint chosen for convenience. Where evidence is weak or the pathway is immature, wider ranges are used.

Overlap management is handled through clearly defined cohort boundaries, benefit boundary rules, and the embedding of attribution and deadweight within the modelling architecture. Outcomes are monetised only where they are material, can be valued in an audit-safe way, and can be attributed to NPM without material risk of duplication. Where that threshold is not met, the effect is acknowledged qualitatively instead. These are safeguards against over-claiming.

Table 12. An overview of the scenarios applied in the sensitivity analysis

Scenario	Description
Optimistic	Upper-bound assumptions for segment shares, attribution factors, and benefit durations. Benefit transfer proxies draw on the higher end of the literature range. Results represent a plausible upper estimate of NPM's value.
Base case	Central assumptions, calibrated to the best available evidence. All attribution factors and segment shares are set conservatively relative to the evidence base. This is the primary reported result.
Pessimistic	Lower-bound assumptions that stress-test the robustness of the BCR under materially weaker attribution, smaller cohort exposures, and shorter benefit durations. Represents a defensible floor estimate.

4.5 Programme Costs

Programme costs underpin both the Conservative model and the Whakapapa Economics model and are assembled at the organisational level rather than the pathway level. The cost base is an estimate derived from NPM's annual reports, financial statements, and consolidated financial materials for the 2002–2024 evaluation period. The cost base includes all operational expenditure attributable to NPM's delivery of its four impact pathways, including secretariat and governance costs, research programme spend, capability building, and knowledge sharing. No attempt is made to allocate those costs across pathways for pathway-level ROI calculation because such an allocation would be artificial and inconsistent with the integrated way NPM operates. NPM has been funded as a CoRE by the TEC across four successive funding contracts from 2002 to 2028 (see Table 13). TEC CoRE funding to NPM totalled approximately $102.9 million (nominal NZD) for 2002–2024.

Table 13. NPM contract funding over the modelled period of 2002–2024

Contract period	Years	Annual funding	Cumulative funding
Contract 1	2002–2008	$3.3M–$4.4m p.a.	$23.5m
Contract 2	2009–2015	$5.1m–$5.4m p.a.	$36.9m
Contract 3	2016–2020/21	$5.0m p.a. (18-mth transition)	$27.5m
Contract 4	2021–2028	$5.0m p.a.	$15.0m[a]
Total	**2002–2024**		**$102.9m**

Note. Figures adjusted to 2026 NZD using year-specific Consumer Price Index (CPI) and Treasury CBAx inflators.
[a] Inclusive of funding up to 2024 only.
Source: NPM annual report financial statements and consolidated financial summary, 2003–2024.

Total nominal programme expenditure across 2003–2024 was $101,853,826. This is distinct from the nominal TEC CoRE funding total of approximately $102.9 million; the difference reflects timing, other income, and accumulated surpluses across contract periods. For the organisational BCR denominator, annual expenditure was restated in real 2026 NZD using year-specific CPI/CBAx inflation factors and then summed. This produces a real 2026 cost base of $142,652,882. This figure is used as the fixed denominator for both the Conservative model and the Whakapapa Economics model. No pathway-level cost allocation is applied because NPM operates as an integrated platform rather than four separable programmes.

5. Findings

The findings that follow are organised across NPM's four impact pathways, in this order: Te Kupenga o MAI, Research and Knowledge, Networking and Convening, and Kanapu. This separation is analytical rather than operational. It is intended to make distinct forms of contribution visible, not to suggest that NPM functions as a collection of separate programmes. In practice, NPM operates as a single integrated Māori research platform, expressed through four reinforcing pathways. Doctoral scholars generate research that informs policy, practice, and community use; the convening pathway carries that research to practitioners, institutions, and international partners; and Kanapu builds workforce capability that both the doctoral and research pathways rely upon. The pathway structure, therefore, helps the reader interpret the evidence, but it should not be mistaken for the way value is created in practice. Each pathway contributes to the others, and the overall organisational contribution is cumulative rather than siloed.

5.1 Different Pathways, Different Evidence

The four pathways differ materially in programme maturity, evidence base, and valuation method, and those differences shape what can be monetised. Te Kupenga o MAI has the longest and strongest evidential foundation in the evaluation, drawing on 22 years of delivery and IDI-linked propensity-matched cohort evidence. The Research and Knowledge pathway uses benefit transfer from verified research-to-practice pathways across 10 domains, reflecting that research impacts are often diffuse, lagged, and shared among multiple actors. Kanapu is an earlier-stage pathway, operational for less than 3 years over the evaluation window, so its monetisation is assumption-based and anchored in early labour-market and wellbeing literature and evidence rather than long-run realised outcomes. The Network pathway uses delegate-day productivity proxies to value convening benefits and replacement-cost methods for infrastructure and relationships that are inherently difficult to monetise directly. These differences reflect an intentional fit between each pathway and the most defensible method available. As a result, differences in monetised value across pathways primarily reflect evidentiary tractability, pathway maturity, and valuation method, rather than differences in strategic importance.

The PVs reported across both models capture only the monetisable portion of each pathway's contribution using conservative parameters. They are not performance rankings and should not be read as statements about the relative importance of the pathways to NPM's mission. Nor should they be interpreted as pathway-level ROI. Costs have not been allocated to individual pathways because NPM's shared infrastructure—leadership, governance, administration, and partner coordination—serves all four simultaneously. A pathway with a lower PV may still be generating substantial value that is non-monetisable, early-stage, or enabling in nature. This is especially important in an organisation where capability building, knowledge production, and system connection reinforce one another over time. The pathway results should therefore be read as partial monetary views of distinct contributions within one integrated system.

5.2 Conservative Model

The core model account is the conservative modelling floor of this evaluation. It follows the New Zealand Treasury's CBAx conventions throughout, uses established valuation methods for each outcome class, and applies conservative parameters by design. The Conservative model brings together six sub-models across NPM's four impact pathways. Each sub-model uses the valuation method best suited to the outcome it measures. Individual-level outcomes, where observable, are valued through cohort-based CBAx models anchored to population-level evidence. System-level outcomes that include research-to-practice influence, policy adoption, and knowledge dissemination are valued through benefit transfer, efficiency-gain, replacement-cost or leverage methods drawn from established practices.

5.2.1 Te Kupenga o MAI—Doctoral Model

Overview

Te Kupenga o MAI (MAI) is the doctoral and postgraduate development network that sits at the heart of NPM's people-and-capability investment. Since 2002, MAI has operated through a national network of sites across New Zealand universities, providing scholarships and financial support for Māori doctoral candidates; national doctoral conferences and writing retreats; one-to-one mentoring and peer-support networks; a culturally grounded, high-trust academic environment; and an intergenerational supervision pipeline. A full breakdown of each modelled benefit and the sensitivity analysis can be found in Appendix A.

Cohort

The doctoral model covers at least 580 Māori doctoral completers supported through the MAI network between 2002 and 2024, of which 427 were directly confirmed from NPM records and 153 were extrapolated from internal programme documents. This is a conservative modelling cohort rather than a definitive administrative count of all people supported by MAI over the period. Kokaua et al. (2025) provides the first in-depth, population-level analysis of highly qualified Māori and Pacific graduates. It documents the outcomes of 996 Māori and 438 Pacific PhD graduates from 2003 to 2022 (see Table 14).

Table 14. Māori and Pacific PhD completions in Kokaua et al.'s (2025) IDI study sample, 2003–2022

Period	Māori PhD completions	Pacific PhD completions
2003–2007	153	54
2008–2012	222	87
2013–2017	291	147
2018–2022	330	150
Total	**996**	**438**

The modelled doctoral pathway uses the whole-of-population evidence as the empirical anchor for a separate NPM/MAI-supported cohort of at least 580 completers. This distinction is central to this section. Confusing the 996 population-level Māori PhD graduates with the NPM/MAI-

supported modelling cohort would overstate NPM's direct reach and weaken the defensibility of the modelling. Population-level IDI data used in the model indicate what doctoral completion is associated with in the New Zealand context; the NPM model then applies that evidence to the separate supported cohort it is responsible for counting. Earlier national Māori PhD goals, including the 500 Māori PhDs goal and later 1,500 Māori PhDs aspirations, were used in varied ways across enrolled and conferred counts. This report uses a stricter modelling boundary based on documented or defensibly extrapolated supported completers.

Quantified Benefits

The evidence base for the doctoral model is strong and is anchored to Kokaua et al. (2025) and NPM (2026), presented through NPM's Te Arotahi and Aropū series and using direct New Zealand longitudinal evidence drawn from the IDI and matched comparison groups. This is important because it means the doctoral pathway is grounded in observed differences in employment, earnings, welfare, housing, and civic outcomes for Māori PhD graduates relative to matched Māori without a PhD and to non-Māori non-Pacific PhD graduates. This gives the model a strong empirical footing.

The findings from the IDI evidence are substantial and directly relevant to the MAI doctoral pathway. Māori PhD graduates have approximately 11-fold greater odds of employment than matched Māori without a PhD. At graduation, they earn around 50% more than non-Māori and non-Pacific PhD graduates and around twice as much as Māori without a PhD. They are more likely to own homes, live in the least deprived areas, and engage in volunteering and community contributions. The evidence also points to better outcomes on several health-related measures relative to Māori without a PhD, while retaining an important caution that highly qualified Māori still face inequities relative to non-Māori non-Pacific PhD graduates on some health indicators.

Therefore, the model values six outcome domains: higher private earnings, higher government tax revenue, reduced welfare reliance, improved housing and material wellbeing, increased community and whānau contribution, and reduced health system utilisation (see Table 15). All six are directly evidenced in New Zealand population-level data in Kokaua et al. (2025) and NPM (2026). Cohort segment share is set at 100% across the benefits as the cohort is tightly filtered to verified NPM-supported completers. Attribution, deadweight, partial achievement, and residual modelling uncertainty are absorbed into the success rate. A 35% success rate on the earnings line means the model credits only 35% of the observed population-level differential to the NPM/MAI pathway, with the remaining 65% treated as attributable to other factors or as deadweight.

The earnings anchor is strong. Kokaua et al. (2025) used Stats NZ's IDI to compare 996 Māori PhD graduates against a propensity-matched cohort of 3,210 Māori without a PhD, tracking mean annual earnings at graduation and at 5, 10 and 15 years post-completion. Derived as the after-tax disposable component of Kokaua et al.'s (2025) gross earnings differential of $42,700 in 2018 NZD. The 2018 source value is uplifted to 2026 NZD using the Treasury CBAx GDP inflator (factor 1.5443, derived from the ratio of the 2026 nominal GDP index 456.464 to the 2018 index 295.577, based on Stats NZ's National Accounts series as embedded in the Treasury CBAx tool). This produces a gross 2026 value of $65,942.25 ($42,700 × 1.5443).

The Crown fiscal revenue component ($20,052 per annum) is subtracted to yield the private disposable proxy of $45,890.25. Applied to the NPM/MAI supported cohort with a 35% success

rate that absorbs attribution, deadweight, and modelling uncertainty, the earnings line has a PV of $120.9 million (after-tax disposable income). The Crown fiscal companion line carries a further $52.8 million as the tax revenue component of the same gross earnings uplift; the two lines are separated by incidence and together reproduce the gross differential of $173.7 million. The remaining four lines: welfare, housing, community, and health are included under conservative parameters and add a combined $1.5 million.

Table 15. Annual segment share, success rate, units per person, benefit duration for the doctoral model

Benefit	Segment share	Success rate	Unit per person	Duration	PV (2%)
Higher earnings	100%	35%	1.0	15 yrs	$120.9m
Higher taxable income	100%	35%	1.0	15 yrs	$52.8m
Reduced welfare reliance	100%	25%	0.05	5 yrs	$0.68m
Housing and material wellbeing	100%	20%	0.25	5 yrs	$0.44m
Community and whānau contribution	100%	15%	0.25	20 yrs	$0.28m
Reduced health system utilisation	100%	10%	0.05	5 yrs	$0.11m
Total					**$175.0m**

Interpretation

The base case PV of $175.0 million reflects the aggregate social and economic value generated by the 580 doctoral completers supported by NPM/MAI since 2002. At $301,685 per completer, this represents a substantial return even under conservative 35% attribution assumptions on the core earnings lines and even lower success rates on the secondary lines. The earnings and fiscal lines account for over 99% of the base case total. The secondary lines of welfare savings, housing, community contribution, and health are genuine effects evidenced in the doctoral outcomes literature, but their causal pathways are more distal, justifying the conservative parameters applied. Their inclusion in the base case reflects a judgement that all six lines are supported by the evidence base at their respective confidence levels.

The doctoral pathway is the single largest measurable value driver because it is the point at which NPM's support can be linked most directly to observed individual outcomes in the New Zealand data. Its high monetised share should therefore be read as a property of evidence quality and observability. This reading limits the interpretation of the doctoral total: doctoral completion is one major value driver within NPM's wider system-enabling purpose, and harder-to-monetise pathways remain strategically important.

The doctoral model is intentionally narrower than the lived contribution of MAI. It does not fully monetise the growth of Māori research leadership capacity, the strengthening of supervision capability for the next generation, the increased cultural authority of Māori scholars inside academic institutions, or the role-model effects that flow back to whānau, hapū, iwi and communities when doctoral success becomes visible and normal rather than exceptional. Nor does it fold broader intergenerational and whānau spillovers into the core total. Those wider

relational effects are material and separately modelled below using the Whakapapa Economics model.

Sensitivity Analysis

In the doctoral model, the scenario movement is driven mainly by the success rate on the two dominant benefit lines of higher earnings and higher taxable income, with the smaller welfare, housing, community, and health lines also changing through tighter or wider units per person. In the pessimistic scenario, the credited share of the observed doctoral earnings differential is materially reduced, and the secondary lines are compressed. In the optimistic scenario, the labour-market lines are credited more strongly, and the smaller wellbeing-related lines are widened. Because the doctoral model is overwhelmingly concentrated in the earnings line and its fiscal companion, these changes substantially affect the PV, from $99.78 million to $251.63 million, around a base case of $175.0 million (Table 16).

Table 16. MAI doctoral model sensitivity summary (2026 NZD, 2% real discount rate)

Scenario	PV (2%)	Parameter changes
Pessimistic	$99.78m	Higher earnings and Higher taxable income reduced from 35% to 20% success; Reduced welfare reliance tightened to 15% success and 0.03 units; Housing and material wellbeing tightened to 10% success and 0.15 units; Community and whānau contribution tightened to 10% success and 0.15 units; Reduced health system utilisation tightened to 5% success and 0.03 units.
Base case	$175.0m	Central parameters as reported in the doctoral model.
Optimistic	$251.63m	Higher earnings and Higher taxable income increased from 35% to 50% success; Reduced welfare reliance widened to 35% success and 0.08 units; Housing and material wellbeing widened to 30% success and 0.35 units; Community and whānau contribution widened to 25% success and 0.40 units; Reduced health system utilisation widened to 15% success and 0.08 units.

5.2.2 Te Kupenga o MAI—Master's, Honours and Internship Model

Overview

This section presents the full technical specification of the CBAx model (a component of the Conservative model) for MAI's pre-doctoral direct-support pathway, covering master's scholarships, honours completion awards, and internship programmes funded by NPM. This model is both distinct from and complementary to the MAI doctoral completions model: it values the social and economic return generated by the non-doctoral direct-support recipients who were connected to NPM through scholarship and internship mechanisms between 2002 and 2024. A full breakdown of each modelled benefit and the sensitivity analysis can be found in Appendix A.

Cohort

The model estimates 440 net unique recipients across 13 award mechanisms between 2002 and 2024, after removing doctoral completers and other overlaps. Within that cohort, three groups define the pathway most clearly for reporting purposes: 90 master's completers, 100 honours

completers, and 250 internship participants. That is a deliberately conservative count. The underlying gross exposure was larger, but the model reduces it to a defensible net unique cohort so that the pre-doctoral pathway can be valued without claiming doctoral outcomes already owned by the doctoral model. The model also fences cleanly against the doctoral model. Any recipient who later completed a doctoral degree under NPM support is removed from the pre-doctoral cohort, and their full value is claimed only once, through the doctoral model. This is again conservative. The pre-doctoral pathway's most important function is catalytic: preparing and stabilising the scholar base and making doctoral completion more likely, but the model does not separately credit that enabling contribution.

The 13 award mechanisms are treated as administrative categories rather than separate benefit lines. They include master's scholarships and completion awards, Kia Ita and other master's support, honours completion awards, summer and Raumati research internships, Matariki internships, Borrin Foundation legal internships, Cawthron Te Pītau Whakarei placements, Te Kāhui Raraunga placements, partner-hosted research internships, and related named NPM scholarship or internship mechanisms recorded in the programme files. The net 440-recipient modelling cohort is lower than the gross exposure because doctoral completers and other overlaps were removed before valuation.

Quantified Benefits

The model values four outcome domains: the earnings premium from master's completion; the uplift associated with honours completion; the short-run labour-market acceleration associated with research internship participation; and a scaled measure of community contribution. The evidence base is weaker than the doctoral cohort and is modelled accordingly. The comparator populations differ, and the master's-over-bachelor's premium is a much narrower gap than the PhD-over-no-qualification differential captured in Kokaua et al. (2025). The benefit durations are shorter, and no New Zealand-specific study quantifies internship outcomes with the rigour that Kokaua et al. provide for doctoral outcomes. Unlike the doctoral model, where Kokaua et al. provide a direct Māori-specific anchor, the pre-doctoral proxies draw on triangulated evidence from Universities New Zealand's (n.d.) lifetime earnings analysis based on Census data, the Organisation for Economic Co-operation and Development's (OECD, 2023) *Education at a Glance* report, Education Counts tax data (Ministry of Education, 2024a), and the international internship literature (Margaryan et al., 2022; Nunley et al., 2016; Oswald-Egg & Renold, 2021). Proxies are set at $10,500 per annum for master's completion, $4,500 for honours completion, and $4,500 for internship acceleration over a 3-year window.

Interpretation

Treating this layer separately is useful for analytical clarity because it shows that the pipeline begins before doctoral completion. At the same time, that separation necessarily understates the pathway's full developmental contribution. The model's PV is therefore modest by design: $4.63 million, or approximately $10,532 per recipient (see Table 17). This is a conservative estimate of this pathway's own direct benefits. As noted above, later doctoral progression is already captured in the doctoral model, and relational or intergenerational spillovers from early scholarly formation sit outside the pre-doctoral Conservative model. The right reading is therefore enabling: the pre-doctoral pathway is smaller in direct monetised terms because its most important work is preparatory and catalytic.

What this pathway produces beyond the monetised core is nevertheless material. Master's projects often return knowledge directly to communities in forms that are closer to immediate application than doctoral research can be. Internships create professional networks, supervisory relationships and early research confidence that are hard to price but easy to recognise in later progression. Honours and master's completion support can be decisive in keeping a scholar connected to study at the point where withdrawal would otherwise become the more likely path. These outcomes matter because they alter who stays in the research system long enough to contribute to it. They also matter because capability, confidence and belonging are not peripheral to Māori research participation—they are among the conditions that make participation durable.

Table 17. Annual segment share, success rate, units per person, and benefit duration for the MAI pre-doctoral model (base model)

Benefit	Segment share	Success rate	Unit per person	Duration	PV (2%)
Master's completion earnings uplift	16%	20%, tapers to 14% by Y10	1.0	10 yrs	$1.25m
Honours uplift and pathway value	20%	15%, tapers to 6% by Y5	1.0	5 yrs	$0.21m
Internship early-career acceleration	44%	52.5% (Y0), 50% (Y1), 47% (Y2)	1.0	3 yrs	$1.25m
Whānau and community contribution	100%	56% (flat, no taper)	0.6	20 yrs	$1.92m
Total					**$4.63m**

Sensitivity Analysis

In the pre-doctoral model, the sensitivity range is driven by changes to all three modelling levers: reach; success rate; and, for the civic line, units per person. The pessimistic scenario assumes that more recipients would have completed or progressed without NPM support, so the in-scope cohort narrows, and the success rates fall across the qualification and internship lines. The optimistic scenario applies the opposite logic, giving more weight to the distinctive value of targeted Kaupapa Māori support in improving completion, early-career momentum, and longer-run civic contribution. As a result, the pre-doctoral model moves from $2.60 million to $7.13 million around a base case of $4.63 million, showing a proportionally wider range than the doctoral model because attribution is less directly anchored to long-run administrative outcomes (Table 18).

Table 18. MAI pre-doctoral model sensitivity summary (2026 NZD, 2% real discount rate)

Scenario	PV (2%)	Parameter changes
Pessimistic	$2.60m	Master's completion earnings uplift reduced to 14.0% reach and 10% success; Honours uplift and pathway value reduced to 16.0% reach and 10% success; Internship early-career acceleration reduced to 38.0% reach and 45% → 42% → 39% success; Civic and volunteer contribution reduced to 45% success and 0.40 units.
Base case	$4.63m	Central parameters as reported in the pre-doctoral model.
Optimistic	$7.13m	Master's completion earnings uplift increased to 19.0% reach and 30% success; Honours uplift and pathway value increased to 23.0% reach and 20% success; Internship early-career acceleration increased to 50.0% reach and 60% → 57% → 54% success; Civic and volunteer contribution increased to 65% success and 0.80 units.

5.2.3 Research and Knowledge Model

Overview

Over the 22 years covered by this evaluation, NPM has delivered a research programme spanning domains including policy and governance; environment, science and kaitiakitanga; health and wellbeing; education; economy and innovation; language, culture and mātauranga Māori; and institutional capability and research infrastructure. Approximately 50 case studies were identified from internal documents, annual reports and external literature/reports that fit within the Research and Knowledge pathway. The full list is in Appendix B.

The case base spans completed policy adoptions (the Te Kotahitanga teacher professional development programme, the Zero–Passive–Active [ZePA] language planning framework, and Kaupapa Māori epidemiology at the Ministry of Health); operational tools and datasets still in use (the national marae hazard assessment, leadership of the Māori Data Governance Model commissioned by Te Kāhui Raraunga, Te Hiku's te reo speech recognition); and foundational scholarship whose public uptake has been measured later (the maramataka programme underpinning Matariki). Not all are individually monetisable. Cost-benefit analysis of research requires visible causal pathways and, in many cases, the pathway from NPM funding to social outcomes is either too diffuse, too recent, or unsupported by established transfer literature.

Quantified Benefits

The approach for this model was to filter the full case base against three inclusion criteria: a named NPM-funded research programme; a documented end-user or policy-and-practice adoption; and an available published transfer source capable of monetising the outcome. Ten case pathways met all three criteria and form the benefit lines reported in Table 19. Across these 10 lines, the evaluation applies a mixture of valuation approaches, matched to the nature of each case: benefit transfer from published wellbeing and cost of illness studies (health system improvement, cultural participation wellbeing, sustainable housing); efficiency gain on affected public expenditure (health system improvement, te reo Māori policy improvement); replacement cost of the research product or service (marae hazard resilience, scholarly journal infrastructure); ecosystem service valuation (environmental management and kaitiakitanga); leverage of follow-on investment (research investment leverage); earnings differential from qualification uplift (school

achievement); and the direct transfer of published Cabinet-grade benefit estimates (Matariki public holiday).

Attribution parameters are deliberately conservative and reflect NPM's position in each causal chain. They are higher where NPM was the direct funder of a specific adopted product, moderate where NPM was a necessary enabler alongside implementing agencies, and low where NPM contributed to a knowledge base influencing a broader political or cultural outcome. The total PV of $142.0 million (2026 NZD), therefore, captures NPM research with certain features: traceable support, visible adoption, and an auditable transfer value. It should not be read as the full economic value of all NPM research.

Table 19. Research and Knowledge model and the associated benefits

Benefit line	Description	NPM contribution	PV (2026 NZD)
Health system improvement	Efficiency gain on Vote Health "Delivering hauora Māori services" appropriation ($615.54m p.a.) from improved Māori health measurement	Funded Bridget Robson's Kaupapa Māori epidemiology research, adopted by the Ministry of Health as standard practice (NZIER-verified)	$5.80m
Sustainable housing innovation	Wellbeing gain per occupied improved dwelling year	Sole funder of Kepa Morgan's Whare Uku research programme; three homes built and a 20-family waitlist followed	$0.17m
Research investment leverage	Follow on research and Crown investment attracted by NPM funded research	Originating research base for Marsden, MBIE Endeavour WERO, Kanapu MBIE and the Te Kotahitanga Crown commitment	$34.99m
Environmental management and kaitiakitanga	Ecosystem service value per hectare year across 170 hectares under improved management	Funded James Ātaria's Ahuriri Estuary research, which produced the evidence base for the 25-year management plan (NZIER-verified)	$6.26m
School achievement uplift	Post-school earnings gap for additional NCEA Level 2 attainers	Funded Russell Bishop's originating research that produced the Effective Teaching Profile, which the Ministry of Education scaled nationally	$9.19m
Matariki public holiday	Annual tourism stimulus and individual leisure welfare value of the public holiday	Decade-long institutional home for maramataka research, including Rangi Mātāmua as a principal investigator and Fulbright NPM scholar	$63.20m
Marae hazard resilience	Replacement cost of commercially commissioning an equivalent multi hazard assessment across 869 sites	Funded Haukapuanui Vercoe's national marae GIS research programme (2025 NZ Esri Young Scholar Award)	$7.29m
Te reo Māori policy improvement	Efficiency gain on affected te reo programme expenditure across five monetised agencies ($260m p.a.)	Funded the Te Kura Roa tripartite programme that developed ZePA, subsequently adopted by seven agencies	$0.70m
Cultural participation wellbeing	Wellbeing value per kapa haka participant year across 50,000 participants	Funded the 2019–2022 kapa haka research programme with Te Matatini, producing the first systematic evidence base for the practice	$3.59m
Scholarly journal infrastructure	Replacement cost of publishing service, peer review labour mobilised, and open access readership surplus across 1,029 articles	Owns and stewards *AlterNative* (SAGE-published) and the *MAI Journal* publishing platform (diamond open-access)	$10.80m

The 10 benefit lines are summarised below:

1. **Health system improvement:** NPM funded Dr Bridget Robson's Kaupapa Māori epidemiology research, which the Ministry of Health adopted as standard practice and which NZIER independently verified through end-user interviews. The benefit is valued as a 1.0% efficiency gain on the $615.54m Vote Health appropriation for "Delivering hauora Māori services", using P. Reid et al.'s (2022) cost of illness anchor. Both the efficiency gain and the 10% attribution sit at the lower half of their defensible ranges.
2. **Sustainable housing innovation:** NPM was the sole funder of Dr Kepa Morgan's Whare Uku research, which produced three occupied homes, Far North District Council acceptance, and a 20-family waitlist. The benefit is valued using the Treasury CBAx database wellbeing value of $6,638 per improved dwelling year, applied to the three homes actually occupied. The 20-family waitlist is carried as a sensitivity, and the line is positioned as a floor estimate given the small base case quantity.
3. **Research investment leverage:** This line consolidates three components that all represent NPM research attracting follow-on investment: NZIER-verified portfolio co-funding ($11.3m), three named grants traced to specific NPM research programmes ($16.1m), and $73m in later Crown commitments building on Te Kotahitanga, namely $31m for Building on Success (Parata, 2013) and $42m in Budget 2019 to build on Te Kotahitanga through Te Hurihanganui (Davis, 2019) ($7.7m). A partitioning rule prevents the portfolio ratio from being applied in years where named grants were secured, so no year is counted twice. Attribution ranges from 85% on the NZIER-verified portfolio component to 10% on the Crown commitment, reflecting NPM's different role in each.
4. **Environmental management and kaitiakitanga:** NPM funded Dr James Ātaria's Ahuriri Estuary research, which produced the biophysical and cultural evidence base for the 25-year management plan covering 170 hectares of coastal and estuarine wetland. The benefit is valued at $9,000 per hectare per year, consistent with the estuarine ecosystem service values used by Hawke's Bay Regional Council ($6,024–$7,362 per hectare per year, based on Patterson and Cole [2013], as cited in Hawke's Bay Regional Council, 2018) once uplifted to 2024 prices. This is close to the low estimate for inland wetlands ($8,655 per hectare, 2021 prices) in the ecosystem values used for the Ministry for the Environment's 2022 cost-benefit analysis, and well below that analysis's values for coastal systems ($75,036–$120,619) (Grimmond & Leffler, 2022). The upper value of $27,600 is the tentative salt marsh value used by Stroombergen (2024) for the lower Kaituna River. The 20% attribution reflects the implementing roles of Hawke's Bay Regional Council, Ngāti Kahungunu, the Department of Conservation, and the Ministry for Primary Industries throughout the plan's life.
5. **School achievement uplift:** NPM funded Professor Russell Bishop's original research that produced the Effective Teaching Profile, which the Ministry of Education subsequently scaled nationally through Te Kotahitanga across 54 secondary schools (see Bishop et al., 2011). The benefit is valued at 81 additional NCEA Level 2 attainers per year, multiplied by the $91,800 post-school earnings gap from Ministry of Education data, with 25% attribution over 5 years. Deadweight is structurally embedded because the quantity counts only excess attainment above the national trend, and the model uses the Meyer et al. (2010) independent Victoria University evaluation as the verification anchor.
6. **Matariki public holiday:** NPM was the institutional home for the maramataka research programme for more than a decade, and Professor Rangi Mātāmua served as an NPM principal investigator, research committee member, and Fulbright NPM scholar during the period when the Matariki knowledge base was built. The benefit base is the $269m per annum combined tourism stimulus and individual leisure welfare value, estimated by MBIE (2021) in its Cabinet-grade Regulatory Impact Statement, with wage transfers excluded as redistributive. The 1.0% attribution over the 30-year legislated horizon is deliberately low given the scale of the benefit base and the length of the horizon, and the line is treated as a standalone sensitivity in the scenario analysis.

7. **Marae hazard resilience:** NPM funded Haukapuanui Vercoe's systematic multi-hazard assessment of 869 marae nationwide, which received the 2025 New Zealand Esri Young Scholar Award and has been taken up by Te Arawa Lakes Trust for emergency preparedness across 26 marae. The benefit is valued at the replacement cost of commercially commissioning an equivalent dataset, set at $10,000 per site, informed by Tonkin & Taylor's (2016, secs. 5.3 and 5.5) indicative costs of $10,000 to $15,000 for a desk-based identification of high-risk areas that includes ecological, social and cultural values, and upward of $30,000 to $50,000 for a detailed assessment of each high-risk area. This is a floor estimate; the avoided damage enabled by the dataset, which could exceed the entire line's value with a single marae saved from a Cyclone Gabrielle scale event, is not monetised.
8. **Te reo Māori policy improvement:** NPM funded the Te Kura Roa tripartite programme with Victoria University of Wellington and the University of Otago, which developed the ZePA language planning framework, subsequently adopted by seven agencies. The benefit is valued using the same efficiency-gain method as the health line, applied to the language programme budgets of the five monetised agencies ($260m in affected spend; 10% affected fraction; 0.75% efficiency gain). The efficiency gain and affected fraction are both below the health analogue despite Te Māngai Pāho's (2018) structural embedding of ZePA across its $56m contestable funding allocation.
9. **Cultural participation wellbeing:** NPM funded the 2019–2022 kapa haka research programme with Te Matatini, producing Meade's (2021) non-market valuation, Nikora et al.'s (2021) Hine Te Rehia framework, and Hall and Bowden's (2021) NCEA outperformance analysis. The benefit is valued at $7,115 per person per year (Benison et al., 2024) applied to 50,000 participants derived from Te Matatini's 66,620 figure with a 75% deduplication adjustment. Attribution is set at 1.5% of the net 15% non-deadweight value (accounting for an 85% deadweight baseline), yielding an effective attribution of 0.225%, or $2.25 per $1,000 of gross wellbeing value. This reflects NPM's role as a producer of evidence rather than of the cultural practice itself.
10. **Scholarly journal infrastructure:** NPM owns and stewards two scholarly publishing platforms: *AlterNative* (714 articles, SAGE-published, internationally indexed) and the *MAI Journal* publishing platform (315 articles, diamond open-access, self-published). The benefit is valued across three non-overlapping components: the replacement cost of the publishing service ($5.55m), the peer-review labour mobilised ($1.64m), and the open-access readership surplus ($3.61m). Citation impact, policy uptake from the articles themselves, author career effects, and the brand value of a flagship Indigenous journal are deliberately excluded as being outside the replacement cost boundary.

Interpretation

The $142.0 million PV reported in this section is the product of a disciplined modelling effort. Ten benefit lines were specified through dedicated technical reports, each anchored to a named NPM-funded research programme; a published transfer source; a documented end user; and an explicit pessimistic, central, and optimistic scenario range. That work produced a defensible number and three features of the model that the reader needs to understand before using it.

The first feature is concentration. Two lines, Matariki and research investment leverage, together hold just over two-thirds of the monetised total. Matariki alone accounts for 44.5%. This concentration reflects the real distribution of monetisable NPM research pathways. The Matariki line is anchored to a Cabinet-grade MBIE benefit base of $269 million per annum and a 30-year legislated horizon, with NPM's contribution set at 1.0%. Research investment leverage is built from three components with independent evidence: NZIER-verified portfolio co-funding, three named grants traced to specific research programmes, and the Crown's commitment to Te Kotahitanga.

The second feature is the asymmetry between the model's upside and downside exposure. The model can only go down on parameters that are already in the model. It can go up on either parameters that move towards their high end within the existing lines or on benefits that sit entirely outside the model. The omissions are substantial. They include the avoided damage enabled by the 869-site marae hazard dataset; citation and policy uptake value from more than a 1,000 peer-reviewed articles across *AlterNative* and *MAI Journal* ; the legal personhood precedents for Te Urewera (Te Urewera Act 2014) and the Whanganui River (Te Awa Tupua (Whanganui River Claims Settlement) Act 2017); leadership of the Māori Data Governance Model commissioned by Te Kāhui Raraunga; the Tōku Whānau platform at the frontier of Indigenous AI governance; the Cyclone Gabrielle research mobilisation across Te Tai Tokerau, Te Tairāwhiti and Heretaunga; the International Indigenous Climate Change Research Summit (2023); the Te Pūtahitanga collective Māori response to MBIE's Te Ara Paerangi consultation; the Awanuiārangi Performance-Based Research Fund (PBRF) uplift and the follow on contracts it triggered from the Ministry of Education, TEC and the Marsden Fund; Te Hiku's te reo speech recognition infrastructure; and the Pei Jones Collection digitisation of 30,000 plus pages of taonga Māori knowledge. None of these sits within the $142.0 million total. Therefore, the scope for adjusting the total downward is narrower than the scope for adjusting it upward.

The third feature is the set of broader dimensions outside the Conservative monetised account. These include mana motuhake, kaitiakitanga, intergenerational transmission of mātauranga, the integrity of Kaupapa Māori research practice itself, and the reciprocal obligations between researchers, whānau, hapū, iwi and the natural world. These dimensions are explored separately through the Whakapapa Economics Model, a framework for expressing Māori economic and social value in terms derived from whakapapa, mauri, tapu, and reciprocity.

Sensitivity Analysis

The model applies a three-scenario structure across all 10 benefit lines. Each line carries its own pessimistic, central, and optimistic parameters, and the scenarios are constructed so that the pessimistic scenario applies low values to all 10 lines simultaneously, and the optimistic scenario applies high values to all 10 lines simultaneously. This generates a combined range that reflects the compounding of parameter uncertainty across the full stream, rather than uncertainty on any single line. Table 20 reports the results.

Table 20. Research and Knowledge model sensitivity analysis across optimistic and pessimistic scenarios

Benefit line	PV (2% 2026)	Parameters basis
Conservative	$82.2m	Low unit values and low attribution fractions applied simultaneously across all 10 lines
Central	$142.0m	Central parameters
Optimistic	$370.4m	High unit values and high attribution fractions applied simultaneously; Matariki reaches $126.0m and kapa haka $90.7m

5.2.4 Networking and Convening Model

Overview

The Networking and Convening pathway contributes two benefit lines: the conference and convening knowledge exchange line, which captures the value generated at NPM-convened events, and the international network and reputational capital line, which captures the cost of establishing and sustaining NPM's international research-network infrastructure.

Quantified Benefits

- **Conference and convening knowledge exchange:** The delegate-day quantity is built from the bottom up, using attendance figures from NPM annual reports. It is estimated that the IIRC series alone contributes 13,589 delegate-days across 11 events from 2004 to 2024. Other major events—masterclasses, symposia, Hui Hihiri, public and policy seminars, the 2023 International Indigenous Climate Change Research Summit, and post-disaster wānanga—contribute a further 8,873 delegate days. The total comes to 22,462 delegate days, of which approximately 59% are drawn from fully observed sources, 25% are derived from reported programme details, and 16% are estimated through conservative assumptions. The unit value is triangulated across three anchors: revealed-preference registration fees ($130–$330/day, a lower bound that omits opportunity cost); a productivity-day proxy built from Glassdoor NZ, Jobted NZ, and the University of Auckland Academic Staff Collective Agreement ($430–$500/day for a blended IIRC delegate); and Rowe's (2019) study of UK academic conference expenditure ($1,320–$1,920/day implied total investment). The report's range of $1,320 to $1,920 per day corresponds to Rowe's national and international delegate costs (£1,568 and £2,269 per event) over 2.5 days at NZ$2.11 per pound. These are attendance costs, consistent with the report's description of them as implied total investment. The selected central value of $500 per delegate-day sits inside the productivity-day range and well below the full-investment anchor; it reflects the opportunity cost of delegate time only. After applying 80% attribution, 25% deadweight (at the lower end of Nicholls et al.'s (2012) guidance range of 20–40% for professional-development interventions, justified by the IIRC's niche positioning) and 10% displacement, the net benefit per delegate-day is $270. Discounted year-by-year at 2% to 2024 and uplifted to 2026, the central PV is $5.32M.
- **International network and reputational capital:** This model is a supply-side valuation, complementary to the demand-side conference and convening model. It values the cost of rebuilding NPM's international research network infrastructure from scratch, and the replacement cost of the formal institutional partnerships, exchange programmes, and international convening capacity developed across 2002–2024. The model is built from identifiable components. These include international conference hosting, annualised from the biennial IIRC series; formal institutional partnerships (the APRU Indigenous and First Nations Knowledges Network, the Tri-Academy Partnership on Indigenous Engagement, the Center for Indigenous Peoples' Research and Development in Nepal, the University of Santiago, and GIDA); UN-level engagement, including Professor Tahu Kukutai's invitation to the Expert Mechanism on the Rights of Indigenous Peoples (EMRIP) expert seminar (December 2024) and the subsequent study reported to the UN Human Rights Council (EMRIP, 2025); and the exchange infrastructure, including Fulbright–NPM awards, Queen Elizabeth II Jubilee Scholarships, and international Indigenous intern placements. Annual replacement costs are estimated at $75,000–$150,000 for conference hosting alone, with the other components scaled accordingly. The model's PV is $2.05 million (see Table 21). As a replacement-cost estimate, this represents the cost of reproducing the infrastructure; the value it generates flows through other pathways, including research dissemination, Indigenous research solidarity, and international policy engagement.

Table 21. Networking and Convening pathway benefits

Benefit line	Description	PV (2% 2026)
Knowledge exchange at NPM events	Demand-side value of professional development and knowledge exchange experienced by delegates at NPM-convened events	$5.32m
International network infrastructure	Supply-side replacement cost of NPM's international research network built 2002–2024: biennial IIRC hosting, formal institutional partnerships	$2.05m

Interpretation

The two lines of the Networking and Convening pathway contribute approximately $7.4 million in PV (central case) to NPM's portfolio and account for around 7% of the quantified benefits. The figures are useful proxies with narrow measurement boundaries. The conference-exchange line values the opportunity cost of delegate time as a standard convention, with no direct measurement of collaborations formed, grants written, policy influence, or student recruitment. The international-network line values the cost of replicating the infrastructure, with no direct measurement of annual downstream production. These two lines also carry a Te Ao Māori measurement gap: whakapapa strengthened at hui, mātauranga transmitted intergenerationally, mana motuhake reinforced in international fora, and the wairua-level benefits of kanohi-ki-te-kanohi encounter. The Whakapapa Economics model addresses this area below.

The $7.4 million central figure should therefore be read as a lower bound. Several benefit streams remain outside the current quantified stack and are candidates for future model development: the option value of NPM's standing network, which allows a wānanga or summit to be mobilised within weeks of a crisis; reputational spillovers from international recognition, such as the TIME100 AI listing, the Rutherford Medal, and the Venice Biennale, which attract students, staff and partnerships beyond NPM itself; and international policy influence through EMRIP and GIDA, with documented effects on UN-level Indigenous data governance.

Sensitivity Analysis

The sensitivity analysis varies five conference-line parameters (delegate days, unit value, attribution, deadweight, displacement) and four network-line parameters (annual replacement cost, programme duration, attribution, deadweight). The discount rate is held constant at 2% across all scenarios. The envelope spans from $2.56 million combined PV in the fully pessimistic case to $15.76 million in the fully optimistic case; the central estimate of $7.37 million sits closer to the floor of that range than to the ceiling, a property of the conservative parameter settings rather than symmetric uncertainty.

Table 22. Networking and Convening model sensitivity analysis across optimistic and pessimistic scenarios

Scenario	Conference PV (2% 2026)	Network PV (2% 2026)	Combined PV (2% 2026)	Parameters varied
Pessimistic	$1.90m	$0.66m	$2.56m	Conference: 16,000 delegate days, $350/day, 70% attribution (all decreased vs central); 35% deadweight, 15% displacement (both increased). Network: $215,000/yr, 10 years, 80% attribution (all decreased vs central); 60% deadweight (increased).
Base case	$5.32m	$2.05m	$7.37m	Conference: 22,462 delegate days × $500/day; attribution 80%, deadweight 25%, displacement 10%. Network: $350,000/yr × 15 years; attribution 85%, deadweight 50%.
Optimistic	$11.60m	$4.16m	$15.76m	Conference: 28,000 delegate days, $650/day, 90% attribution (all increased vs central); 15% deadweight, 5% displacement (both decreased). Network: $440,000/yr, 20 years, 90% attribution (all increased vs central); 40% deadweight (decreased).

5.2.5 Kanapu Model

Overview

Kanapu is best understood as Māori RSI/SIT pathway infrastructure rather than an event-based workforce programme—its purpose is to make the RSI/SIT system visible, legible and navigable for Māori researchers, scientists, innovators and knowledge holders at a point when Māori remain approximately 17% of the population but only 11% of tertiary education institute staff, 5% of research organisation staff, and 7% of research organisation senior leadership (MBIE, 2022).

Kanapu is NPM's research, science, innovation and technology workforce pathway, established in 2022 through a six-year MBIE investment of $6.5 million. Kanapu's short time horizon means some model lines apply a conservative modelling approach pending participant employment, income, postgraduate enrolment, and post-participation wellbeing follow-up at 6–24 months. A full rundown of the benefits can be found in Appendix A.

Cohort

The Kanapu cohort architecture is layered by design. Different benefit lines use different denominators, matched to the engagement intensity and plausibility of each outcome. A de-duplicated reach universe of 1,100–1,200 participants sits at the top, with an active-engagement sub-group of approximately 425 used as the CBAx workbook entry cohort. The architecture is deliberately multi-component: Te Ako Rau structured mentoring, masterclasses, Hui Hihiri national and regional wānanga, Tūhono Rau Tangata mātanga talks, and Kanapu Connect have layered analytic cohorts that should be read as purpose-specific rather than as a single funnel.

Quantified Benefits

The model values nine benefit lines covering career transition into RSI/SIT employment; in-role earnings uplift; their fiscal companions; postgraduate progression; avoided job-search friction; reduced welfare reliance; community contribution; and a subjective wellbeing uplift from programme participation. The strongest present evidence of effect is pathway formation rather than audited end-state outcomes. Te Ako Rau achieves 77% completion and 44% progression to the higher-intensity Te Ako Rau+ pathway, while mātanga talks record 96% satisfaction (≥4/5). The current quantified evidence indicates a PV of $1,494,908 in real 2026 NZD (2% discount rate) across a 425-person active-engagement cohort (see Table 23). This is equivalent to $3,517 per cohort member.

Three lines drive most of this value: subjective wellbeing uplift ($730,006; 48.8%), postgraduate progression ($284,730; 19.0%), and career transition into RSI/SIT employment after tax ($240,057; 16.1%). Labour-market outcomes are attached to a conservative, auditable base of 61 individuals; postgraduate progression is attached to a masterclass-based cohort of 187. The subjective wellbeing line dominates at $730,006 and is anchored to Treasury's CBAx wellbeing year (WELLBY) proxy of $16,784 per life-satisfaction point per year, applied to a composite life-satisfaction shift of 0.15 points across the full active-engagement sub-group of 425 at a 30% success rate.

Table 23. Annual segment share, success rate, units per person, and benefit duration for the Kanapu cohort (base model)

Benefit line	Segment share	Success rate	Units per person	Duration	PV (2%)
Career transition earnings	7%	12%	Y1 0.80–Y5 0.70	5 years	$0.240m
In-role earnings uplift	7%	15%	Y1 1.00–Y5 0.70	5 years	$0.093m
Higher tax income (career transition)	7%	12%	Y1 0.80–Y5 0.70	5 years	$0.068m
Higher tax income (in-role progression)	7%	15%	Y1 1.00–Y5 0.70	5 years	$0.028m
Postgraduate earnings uplift	18%	5%	1.00 (flat across Y1–Y10)	10 years	$0.285m
Job-search friction avoided	4%	20%	1.00	1 year	$0.030m
Reduced welfare reliance	10%	8%	0.10	2 years	$0.011m
Enhanced community contribution	10.0%	20%	Y1 1.00; Y2 0.50	2 years	$0.010m
Subjective wellbeing uplift	100%	30%	Y1 0.15–Y3 0.08	3 years	$0.730m

Interpretation

Kanapu's evidence base is explicitly early-stage. The programme has been operating for approximately 2.5 years within the evaluation window, which means longer-term outcome tracking, labour-market status, income change, postgraduate completion, and post-participation wellbeing measurement are not yet available. The model's modest PV reflects this evidence

maturity and the conservative monetisation of early-stage outcomes. Kanapu is already strategically larger than its most conservative monetised lines can show because it is building navigation, confidence, belonging, mentoring intensity, and emerging pathway progression in a system where Māori remain materially under-represented.

Sensitivity Analysis

Table 24. Kanapu sensitivity scenario (2026 NZD, 2% real discount rate)

Scenario	PV	Parameter changes
Pessimistic	$0.317m	Career transition reduced to 4.50% reach and 8% success, with units tightened to 0.60 → 0.50; Career progression reduced to 4.50% reach and 10% success, with units tightened to 0.80 → 0.50; Higher taxable income / government revenue lines mirror those tighter labour-market settings; Postgraduate progression earnings uplift reduced to 10.0% reach and 2% success; Faster labour market entry / avoided job-search friction reduced to 2.50% reach and 10% success; Reduced welfare reliance reduced to 5.0% reach, 4% success and 0.05 units; Community contribution reduced to 5.0% reach, 10% success and 0.50 → 0.25 units; Subjective wellbeing uplift (WELLBY) reduced to 10% success with units of 0.10 → 0.08 → 0.05.
Base case	$1.49m	Central parameters as reported in the Kanapu model
Optimistic	$4.09m	Career transition increased to 10.0% reach and 18% success, with units widened to 1.00 → 0.80; Career progression increased to 10.0% reach and 22% success, with units widened to 1.00 → 0.80; Higher taxable income / government revenue lines mirror those stronger labour-market settings; Postgraduate progression earnings uplift increased to 25.0% reach and 8% success; Faster labour market entry / avoided job-search friction increased to 7.0% reach and 30% success; Reduced welfare reliance increased to 14.0% reach, 12% success and 0.15 units; Community contribution increased to 15.0% reach, 30% success and 1.00 → 0.75 units; Subjective wellbeing uplift (WELLBY) increased to 50% success with units of 0.20 → 0.17 → 0.13.

In Kanapu, the sensitivity range is driven by changes across all three modelling levers—reach, success rate, and units per person—and is especially influenced by the lines for Career transition, Postgraduate progression earnings uplift, and Subjective wellbeing uplift (WELLBY). The pessimistic scenario assumes that fewer participants were genuinely transition-ready, that a larger share of observed gains would have occurred through broader RSI/SIT sector conditions rather than programme-specific additionality, and that the wellbeing effect was smaller and less sustained. The optimistic scenario assumes stronger conversion of programme engagement into labour-market movement, postgraduate progression, and wellbeing gains, with larger in-scope cohorts and flatter unit profiles on the main employment lines. As a result, Kanapu moves from $317,382 in the pessimistic scenario to $4.09 million in the optimistic scenario around a base case of $1.49 million, making it the widest proportional sensitivity range of the three monetised CBAx models.

5.3 Aggregated Conservative Model

The six sub-models above generate a central Conservative model PV of $330.73 million (see Table 25). Against the fixed real 2026 programme cost base of $142.65 million, this produces a Conservative BCR of 2.32 at a 2% real discount rate. The sensitivity analysis tests how robust that headline is under alternative parameter assumptions. Parameter sensitivity varies the key inputs within each sub-model (attribution, deadweight, unit value, cohort exposure, and duration) over a pessimistic-to-optimistic range. The pessimistic Conservative BCR of 1.32 is well above the break-even ratio of 1.0. This is the most important diagnostic shown in the table. Under assumptions that weaken attribution, narrow cohort exposure, shorten benefit durations, and shift proxy values towards the lower end of their defensible ranges across all sub-models simultaneously, NPM's Conservative return on public investment remains above the break-even threshold of 1.0.

Table 25. Aggregated Conservative model across different scenarios

Scenario	Conservative PV (2% 2026)	BCR
Pessimistic	$187.71m	1.32x
Central (base)	$330.73m	2.32x
Optimistic	$649.18m	4.55x

Three features make the Conservative model a floor rather than a best estimate. The first is the treatment of attribution. Every sub-model applies an explicit attribution factor that credits NPM with only a share of the outcome of interest, with the remainder attributed to other factors or not occurring at all. The second feature is the treatment of duration. Benefit durations are capped well below the full plausible horizon of each outcome. The doctoral earnings effects, which Kokaua et al. (2025) observed persisting over 15 years and plausibly extend over a full working career, are modelled for only 15 years. The welfare, housing, community, and health effects of doctoral attainment are modelled over 5 years rather than over working lifetimes. The third feature is what the Conservative model does not attempt to value at all. The account excludes, by explicit methodological decision, several categories of outcome where evidence is less mature or where monetisation would require speculative assumptions.

The Conservative model captures four things well. It captures outcomes for trackable individuals whose labour-market, educational, and welfare trajectories can be observed in linked administrative data, principally doctoral earnings and employment outcomes, as anchored in the Kokaua et al.'s (2025) IDI analysis and the Te Kotahitanga student attainment uplift supported by the independent Meyer et al. (2010) matched-school evaluation. It captures the translation of research into end-user practice, with an independent evaluation verifying the pathway, the Ministry of Health's adoption of Kaupapa Māori epidemiology, the implementing bodies' adoption of the Ahuriri Estuary management plan, and the Far North District Council's acceptance of Whare Uku construction. It captures fiscal flows for which dollar amounts and attribution can be traced, including co-funding leverage, named research grants, and the Crown's fiscal commitment to Te Kotahitanga. Finally, it captures infrastructure replacement costs when NPM has built a service with a defensible commercial replacement cost.

Effects outside the Conservative model include the following set of outcomes that flow from direct impacts through relational, community, and institutional channels:

- the effects of doctoral attainment on the educational aspirations of tamariki and mokopuna
- the economic resilience that a doctoral qualification provides to whānau beyond the completer
- the health and stress-reduction benefits transmitted through whānau support structures
- the mentoring and supervision capacity that completers themselves embody
- the institutional legitimacy that mātauranga Māori gains when Māori scholars are present and respected in academic settings
- the governance capacity that flows from NPM-supported research into iwi authorities and public institutions
- the research collaboration stock that accumulates through sustained networks
- the cultural affirmation and belonging that participation in Māori research spaces generates
- the intergenerational educational mobility that accumulates as doctoral success becomes more normal across Māori communities.

These effects sit at the centre of a Whakapapa Economics-centred view of value, but they are harder to observe and challenging to monetise using standard approaches.

5.4 Whakapapa Economics Model

Overview

The Whakapapa Economics model extends the Conservative model by monetising effects the latter does not capture. It sits above the Conservative model as a parent account and carries the Conservative result within a broader value boundary. Everything the Conservative model identifies as quantifiable remains quantified. The Whakapapa Economics model adds the disciplined monetisation of effects that flow beyond the individual beneficiary, beyond the point of transaction, and beyond the horizon of typical SROI/CBAx modelling approaches.

Quantified Benefits

In total, 14 benefits fall into four groups reflecting the Conservative pathway they extend: eight lines extend the Te Kupenga o MAI pathway, two extend the Research and Knowledge pathway, two extend the Networking and Convening pathway, and two extend the Kanapu pathway. Table 26 summarises each line and its PV in 2026 NZD at a 2% real discount rate.

Table 26. Benefit lines underpinning the Whakapapa Economics model

Benefit line	Description	PV (2%) (2026 NZD)	Pathway
Whānau economic resilience	Hardship-absorption support extended by NPM doctoral-graduate households to their wider whānau across a 10-year window. Fenced against doctoral earnings.	$98.75m	MAI doctoral
Tamariki tertiary attainment uplift	Additional tertiary attainment among the tamariki of NPM doctoral graduates, valued across a 40-year working life.	$34.73m	MAI doctoral
Whānau health and support-burden	Navigation-hub effect by which the doctoral graduate supports whānau wellbeing across complex health, housing and social systems.	$33.02m	MAI doctoral
Peer spillover into RSI/SIT entry	Additional entry into RSI/SIT employment by non-participant peers of Kanapu participants.	$12.14m	Kanapu
Whānau educational climate	Uplift in the educational climate of doctoral-graduate homes for pre-tertiary tamariki, preceding and fenced against tertiary attainment.	$7.69m	MAI doctoral
Direct tuākana–tēina mentoring	Additional Māori doctoral completions by later candidates directly mentored by NPM graduates.	$4.33m	MAI doctoral
Supervision and pipeline capacity	Sustainable Māori doctoral supervision capacity from a thicker Māori graduate presence in institutional roles.	$4.25m	MAI doctoral
Cultural affirmation and belonging	Belonging and identity wellbeing uplift for Indigenous delegates attending NPM convening events.	$3.53m	Networking and Convening
Governance and service fit	Service-fit and decision-quality improvements from Māori PhD holders in non-RSI governance roles.	$2.57m	MAI doctoral
Cultural taxation and retention	Academic retention supported by relief from the cultural-taxation load Māori academics in mainstream institutions absorb.	$1.21m	MAI doctoral
RSI/SIT governance	Later-career movement of Kanapu alumni into RSI/SIT governance and advisory roles.	$0.31m	Kanapu
Reduced mistrust and transaction cost	Lower friction of initiating new NPM research relationships, arising from accumulated relational credit with Māori communities.	$0.17m	Research and Knowledge
Collaboration stock	Durable research-collaboration pairs formed through repeated NPM convening attendance, beyond any single event.	$0.15m	Networking and Convening
Research legitimacy	Uptake of NPM-supported research at the community, iwi, hapū and marae frontier, where legitimacy is the enabling condition.	$0.04m	Research and Knowledge
Total		**$202.88m**	

Interpretation

Eight of the 14 lines extend the MAI pathway, and this is where the weight of the extension sits. The MAI extensions total $186.55 million, which is 92% of the total extensions. This reflects three features of the evidence base: (1) the strongest New Zealand population-level evidence for intergenerational and whānau effects is for doctoral attainment, as reported by Kokaua et al.'s (2025) IDI analysis and the 2023 Census household data (Stats NZ, 2025a); (2) NPM's contribution to the MAI pathway is the longest and most documented of the four pathways, giving these extensions the strongest attribution base; and (3) the doctoral pathway operates on

the intergenerational horizon where the Whakapapa Economics framing has the most to add. The Kanapu, Networking and Convening, and Research and Knowledge extensions together add $16.33 million, reflecting the earlier stage of their evidence base and the narrower channels through which their effects travel.

Within the MAI extensions, three lines carry most of the weight. The whānau economic resilience line values a distinct whānau-level outcome: reduced hardship-management burden and improved household resilience among non-graduate whānau members associated with the stability created by doctoral completion. The line uses a hardship / housing-affordability proxy pathway, applied over a bounded 10-year window, with a 3.3 whānau-size parameter consistent with the 2023 Census average Māori household size (Stats NZ, 2025a). It is fenced against the Conservative doctoral earnings line, the graduate's own housing benefit, and the whānau health and support-burden line. The tamariki tertiary attainment line at $34.73 million uses published evidence on intergenerational mobility to attribute a share of children's tertiary attainment to parental doctoral completion. The whānau health and support-burden line at $33.02 million captures the health and support-burden effects on whānau of having a doctoral-qualified member, carefully fenced off from the whānau economic resilience line to avoid any single mechanism being counted twice.

The remaining MAI extensions are more modest in scale and address specific mechanisms. The tuākana–tēina mentoring pipeline at $4.33 million captures the effect of MAI-supported completers mentoring subsequent Māori postgraduate cohorts, using a documented mentor attribution of 0.22 applied to a mentored cohort of 50. The supervision capacity line at $4.25 million captures the institutional supervision capacity generated as completers become supervisors and is separately fenced off from the mentoring line. The cultural taxation reduction line at $1.21 million reflects the reduced cultural labour costs for Māori researchers as Māori scholarship normalises within academic institutions. The governance and leadership line at $2.57 million captures Māori governance capacity in iwi authorities, public institutions, and research boards.

Outside the MAI pathway, the Kanapu peer participation line, at $12.14 million, is the largest single extension, reflecting Kanapu's design as a pathway-building programme that operates through peer effects. The cultural affirmation and belonging line at $3.53 million, extending the Networking and Convening pathway, captures the wellbeing effects on Māori researchers of participating in Māori research spaces, anchored to the same WELLBY framework that underlies the Kanapu Conservative model. The remaining four lines are small individually but collectively represent extensions to the Research and Knowledge and Networking and Convening pathways where evidence of effect exists, though the causal chains are longer.

Four extension lines have weaker evidence bases and are subject to an additional conservative factor before being included in the total. These are the cultural taxation line, the research collaboration stock line, the research legitimacy line, and the transaction cost reduction line. These are lines where the underlying mechanism is documented but the magnitude is harder to observe directly. The conservative factor is the honest response to that evidence situation.

The Whakapapa Economics model benefit lines are individually modest in most cases; their combined effect is what matters. Taken together, they represent the disciplined monetisation of effects that NZIER's (2014) evaluation of NPM identified as material but did not price.

Sensitivity Analysis

Every monetised benefit in the Whakapapa Economics model carries some uncertainty. The sensitivity analysis makes that uncertainty visible by testing each benefit under low and high parameter variants, reflecting the defensible range for the parameter that carries the most live uncertainty for that benefit. Table 27 aggregates those per-benefit tests into portfolio-level pessimistic, base, and optimistic scenarios.

In the pessimistic case, every benefit simultaneously resolves to its defensible low-end parameter. The whānau economic resilience benefit narrows to a single-construct housing-affordability proxy reduced by 20%. The tamariki tertiary attainment uplift discounts the Māori-specific transfer coefficient from 0.75 to 0.60 (a deeper adjustment for Māori cohort outcomes against the general-New Zealand lifetime earnings uplift). The Kanapu peer-effect elasticity drops from 0.15 to 0.10. The governance cohort compresses to a single 3-year term for 70 people rather than two terms for 97. Every bridge-class benefit takes its lowest cohort count and its lowest bridge factor simultaneously. Under this joint adverse parameterisation, the Whakapapa Economics model subtotal falls from $202.88 million to $165.85 million, a reduction of 18%.

Table 27. Sensitivity analysis for the Whakapapa Economics model

Benefit line	Pessimistic	Base	Optimistic	Parameter adjusted
Whānau economic resilience	$79.00m	$98.75m	$244.40m	Hardship-absorption proxy structure: single housing construct at base, reduced by 20% at low, bundled with debt-burden constructs at high.
Tamariki tertiary attainment uplift	$27.78m	$34.73m	$46.31m	Māori-specific transfer coefficient: 0.60 at low, 0.75 at base, 1.00 (face value) at high.
Whānau health and support-burden	$33.02m	$33.02m	$56.49m	Proxy within the relational bundle: advice-provision at base and low (already conservative), substituted for broader belonging construct at high.
Peer spillover into RSI/SIT entry	$8.10m	$12.14m	$20.24m	Peer-effect elasticity: 0.10 at low, 0.15 at base, 0.25 at high.
Whānau educational climate	$6.15m	$7.69m	$18.45m	Unit-year scope: 5 secondary years at base, reduced 20% at low, extended to 12 years covering primary and secondary at high.
Direct tuākana–tēina mentoring	$3.93m	$4.33m	$4.91m	Mentor-attribution share: 0.20 at low, 0.22 at base, 0.25 at high.
Supervision and pipeline capacity	$3.19m	$4.25m	$6.38m	Cohort size: 75 at low, 100 at base, 150 at high.
Cultural affirmation and belonging	$2.82m	$3.53m	$4.09m	Per-person unit value: 20% reduction at low, base proxy, higher-value belonging construct at high.
Governance and service fit	$0.96m	$2.57m	$5.37m	Cohort size and duration jointly: 70 people over 3 years (one term) at low, 97 over 6 years (two

				terms) at base, 139 over 9 years (three terms) at high.
Cultural taxation and retention	$0.58m	$1.21m	$2.17m	Cohort size and bridge factor jointly: 30 at 0.4 at low, 50 at 0.5 at base, 75 at 0.6 at high.
RSI/SIT governance	$0.15m	$0.31m	$0.46m	Cohort size: 10 at low, 20 at base, 30 at high.
Reduced mistrust and transaction cost	$0.07m	$0.17m	$0.33m	Cohort size and bridge factor jointly: 15 at 0.3 at low, 25 at 0.4 at base, 40 at 0.5 at high.
Collaboration stock	$0.08m	$0.15m	$0.24m	Cohort size and bridge factor jointly: 20 at 0.4 at low, 30 at 0.5 at base, 40 at 0.6 at high.
Research legitimacy	$0.02m	$0.04m	$0.07m	Cohort size and bridge factor jointly: 25 at 0.4 at low, 40 at 0.5 at base, 60 at 0.6 at high.
Total	**$165.85m**	**$202.88m**	**$409.86m**	

In the optimistic case, every benefit simultaneously resolves to its defensible high-end parameter. The whānau economic resilience benefit is valued using a bundled two-construct structure (housing plus debt burden), applied across sub-cohorts. The tamariki tertiary attainment uplift is valued at the face-value Māori transfer coefficient of 1.00. The Kanapu peer-effect elasticity rises to 0.25. The governance cohort extends to three 3-year terms for 139 people. Every bridge-class benefit takes its highest cohort count and its highest bridge factor. Under this joint favourable parameterisation, the Whakapapa Economics model subtotal rises from $202.88 million to $409.86 million, more than doubling. The whānau economic resilience benefit alone accounts for $145.65 million of the $207 million upward movement, reflecting the specific structural choice to bundle two hardship constructs rather than a general upward revision across all benefits.

5.5 What Remains beyond the Whakapapa Economics Model?

The Whakapapa Economics model measures important benefits but still cannot fully capture all NPM impacts. Among these are the long-run effects of mātauranga Māori normalisation on New Zealand's scholarly and policy landscape, the international Indigenous research leadership role that NPM has come to occupy over two decades of IIRC conferences and Indigenous network building, the value to Māori communities of having a sustained national research infrastructure that operates on their own terms, and the broader shift in who is considered a legitimate knowledge holder in academic and policy settings.

The Whakapapa Economics model should therefore be read as a more complete account than the Conservative model while still remaining a bounded account. The full return on NPM's contribution to Aotearoa over the 2002–2024 period is, on the evidence, somewhat higher than even the Whakapapa Economics model's BCR of 3.74 suggests. This evaluation can, with methodological discipline, defend a Conservative BCR of 2.32, which, when aligned with Whakapapa Economics, yields a BCR of 3.74.

6. Organisational Return on Investment

The evaluation produces two complementary figures for NPM's organisational ROI across the 2002–2024 period. Both are calculated against the real 2026 cost base of $142.65 million. Both are defensible in terms of the methods used. Neither replaces the other. The Conservative model BCR is 2.32, calculated using orthodox Treasury CBAx methods applied to directly observable outcomes across the four impact pathways. The Whakapapa Parent benefit-cost ratio is 3.74 and adds the disciplined monetisation of effects that flow beyond the individual beneficiary, beyond the point of transaction, and across the intergenerational horizon that characterises Kaupapa Māori investment. This chapter reads the two accounts together.

Across the two accounts, NPM generates a combined PV of $533.61 million against a cost base of $142.65 million, a parent BCR of 3.74 (Table 28). The Conservative contribution of $330.73 million is the conservative orthodox floor; the Whakapapa Economics contribution of $202.88 million captures whakapapa-channel effects that the Conservative methods cannot reach directly. Table 28 disaggregates both accounts by NPM pathway. It shows where each pathway's value lies in the Conservative model, in the Whakapapa Economics model, and what its contribution to the combined account looks like.

Table 28. Overview of the core model and associated sub-models across the pathways

Metric	**PV (2% 2026)**
Conservative model	$330.73m
Whakapapa Economics model	$202.88m
Total value	$533.61m
Programme costs	$142.65m*
Conservative BCR	2.32
Total BCR	3.74

* All figures are expressed in real 2026 NZD, discounted at a 2% real rate consistent with Treasury CBAx guidance for non-commercial evaluations. Programme costs are real 2026 cost base.

The two accounts cover complementary methodological blind spots. The Conservative model is strongest where outcomes are individually trackable: labour-market earnings differentials in linked administrative data, fiscal flows to and from named research programmes, replacement costs for concrete infrastructure, benefit transfer from policy impact statements, and research-to-practice uptake verified by independent evaluation. The Whakapapa Economics model is strongest where outcomes pass through relational, whānau, community, and institutional channels: hardship absorption within a whānau, tamariki attainment driven by the household educational climate, supervision capacity that builds as a thicker Māori graduate presence accumulates, and belonging and mauri-refresh effects from sustained convening. Reading the two together produces a more complete picture than either account can provide on its own.

The combined account is more robust than either sub-account in isolation because it diversifies across evidence bases and causal channels. The Conservative model, if stress-tested on its own, loses 45% of its value when the doctoral earnings line is removed and 16% when the Matariki

benefit line is removed; together, the two lines account for 62% of the Conservative model. The Whakapapa Economics model, similarly, concentrates 82% of its value in three whānau benefits. Each account has its own fragilities. The combined account dilutes them. Under the pessimistic scenario (every extension parameter is resolved adversely), the total BCR falls to only 2.48, still 0.16 above the Conservative floor of 2.32. The aggregated portfolio is more diversified than either sub-portfolio and more robust than either would be in isolation.

The combined account presents NPM as an ecosystem rather than a portfolio of four projects. Read through the Conservative model alone, NPM appears as four pathways producing outputs: graduates with higher earnings, research with policy impact, a cadre of RSI/SIT early-career workers, and international convening infrastructure. Read through the Whakapapa Economics model alone, NPM appears as a whānau-and-community value producer: hardship absorbed, tamariki attainment lifted, mentoring pipelines sustained, and belonging affirmed. Read together, NPM is neither. The same doctoral graduate appears in the Conservative model (as the earner) and in the Whakapapa Economics model (as the channel for whānau, tamariki, mentoring and governance effects). The same convening event appears in the Conservative model (as knowledge exchange) and in the Whakapapa Economics model (as belonging refresh and collaboration stock). The combined picture is of an integrated, self-sustaining Māori research ecosystem in which each NPM activity seeds multiple downstream effects across multiple temporal horizons. Evaluating NPM as a portfolio of four programmes systematically misreads what NPM is. The combined account is the only reading that avoids this misreading.

7. Strategic Alignment and Future Opportunities

This chapter explores whether NPM has delivered against the criteria it was funded to meet across its 25-year contract arc (2002–2027); where the evaluation evidence points to amplification opportunities for 2026–2030; and what role NPM plays as the RSI/SIT and tertiary education landscape shifts under current reform trajectories. It is designed to inform three decisions in parallel: delivery through the remainder of the current contract period to 31 December 2028; NPM's positioning response to the RSI/SIT reforms now underway; and the 2028 CoRE re-bid. The evaluation evidence base covers 2002–2024 as the monetised cumulative account; the 25-year contract arc extends to 2027; and forward-looking implications extend to 2030.

The chapter reads NPM's contribution through the two linked organisational value accounts developed in this evaluation. The Conservative model, returning a BCR of 2.32x on a cost base of $142.65 million, is the conservative audit floor, a defensible orthodox Treasury CBAx result that stands on its own terms. The Whakapapa Economics model, returning a combined BCR of 3.74x on the same cost base and a combined PV of $533.61 million, is the parent account in which the Conservative model sits. It captures the whānau, relational, institutional and intergenerational value that orthodox cost-benefit appraisal systematically undercounts. Both accounts are used throughout this chapter.

7.1 Alignment with Formal CoRE Funding Mechanism

NPM's performance should be read directly against the government's formal CoRE mission and assessment expectations alongside future policy settings. The July 2020 funding mechanism states that CoREs are funded to undertake excellent research, support the development of world-class researchers, and demonstrate academic strength as well as progress towards public good and/or economic benefits (Minister of Education, 2020). The mission statement also requires leading-edge, world-class research in an area of importance to New Zealand; collaborative and inter-institutional participation; contribution to graduate and new researcher education; end-user engagement; research translation; equity and wellbeing outcomes; and national and international authority.

The evidence in this report shows that NPM has met those expectations and exceeded them in areas where the formal CoRE frame is least able to see Kaupapa Māori value (see Table 29). It has delivered excellent Māori-led research, built a national and international Māori research workforce, developed world-class researchers, created journal and conference infrastructure, strengthened collaboration across 21 partner entities, generated measurable public good and economic value, and sustained end-user translation into policy, practice, and community settings. Its distinctive contribution lies in combining the standard CoRE functions with a Māori research infrastructure role that no other CoRE performs at a national scale.

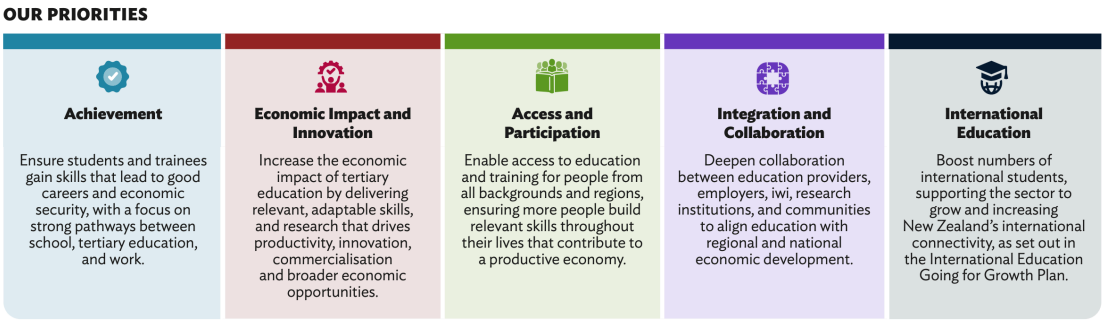
Table 29. NPM performance against formal CoRE expectations

CoRE expectation	Evidence from this evaluation	Reading
Excellent, leading-edge and world-class research	634 peer-reviewed outputs in 2024, 18 live Matakitenga projects, internationally circulating journals, named research-to-policy cases, and scholarship across mātauranga Māori, health, education, environment, law, language, data and technology.	NPM meets the excellence expectation through Māori-led research that is novel, multidisciplinary, outcomes-focused and internationally visible.
Development of world-class researchers	At least 580 MAI-supported doctoral completers, 400+ current MAI scholars, a 14-site MAI network, a supervision-producing doctoral pipeline, and recorded movement into professorial and leadership roles.	NPM exceeds a narrow training role by creating the national Māori research leadership pipeline that other institutions draw upon.
Contribution within the tertiary education system	21 partner entities, 230 research staff at 50.84 FTE, 107 Māori Principal Investigators, postgraduate support, pre-doctoral awards and internships, and Kanapu as an RSI/SIT navigation pathway.	NPM operates as system infrastructure for Māori participation, retention, progression and research workforce development.
Public good and/or economic impact	$330.73m Conservative model PV, $533.61m Whakapapa Parent model PV, BCRs of 2.32 and 3.74, and 10 monetised Research and Knowledge benefit lines spanning health, education, language, environment, culture, housing and research infrastructure.	NPM clears the orthodox economic test and shows wider relational value through the Whakapapa Economics model.
Engagement, exchange and research translation	Te Arotahi and Aropū policy briefs, community-facing research, end-user adoption of ZePA, Kaupapa Māori epidemiology, Te Kotahitanga, Ahuriri Estuary management, marae hazard mapping and kapa haka evidence.	NPM demonstrates sustained translation to policy, practice, iwi, hapū, marae and community settings.
Collaboration and governance	Four funding contracts, 21 partners, Te Tira Takimano, institutional agreements, co-funding leverage and multi-organisation research relationships.	NPM meets the collaborative CoRE model while extending it through Kaupapa Māori governance and relational practice.
National and international authority	IIRC across 11 cycles, *AlterNative* and *MAI Journal*, international Indigenous networks, GIDA, APRU, Atlantic Fellows and Tri-Academy relationships, and Indigenous research leadership visible across more than 13 countries.	NPM operates as a national Māori research authority and an international Indigenous research showcase for Aotearoa.

7.2 Alignment with Tertiary Education Strategy

The TES 2025–2030 sets five priorities against which a CoRE operating within the tertiary system can reasonably be assessed: Achievement; Economic Impact and Innovation; Access and Participation; Integration and Collaboration; and International Education (TEC, 2025; see Figure 3).

Figure 3. Five core priorities under the TES 2025–2030



NPM's four impact pathways can be mapped against each priority, drawing on key evidence established in earlier findings chapters and on the formal CoRE alignment set out above (Table 30). The alignment pattern is coherent rather than concentrated. Each TES priority is met through a different pathway, and several pathways clear more than one priority when the full contribution is considered. Read through the Conservative model alone, the crosswalk already demonstrates that NPM satisfies a conventional public-investment test across all five priority areas. Read through the Whakapapa Economics model, the alignment is strengthened: NPM's contribution includes the long-run Māori research infrastructure, supervision capacity, convening systems, journal ecology, partner relationships, and governance capability that allow those outputs to occur, be trusted, and be renewed across generations.

Table 30. NPM contributions to five priorities within the TES 2025–2030

TES Priority	NPM Contribution
Achievement	The Te Kupenga o MAI doctoral pathway has supported 580 Māori doctoral completers over the evaluation period, with a Conservative PV of approximately $301,685 per completer. IDI-linked cohort evidence confirms earnings uplift, reduced benefit reliance and improved housing security relative to counterfactual. This is the pathway through which NPM most directly delivers the qualifications-to-careers outcome logic at the heart of the Achievement priority.
Economic Impact and Innovation	The Research and Knowledge pathway delivers an approximately $142 million PV across 10 domains, including health, housing, environment, education, language and culture, policy and governance, and journal and dissemination infrastructure. Research delivered through this pathway has shaped service design, policy adoption and productivity-relevant practice in each domain. Its contribution to innovation is visible both in the traceable benefit lines of the Conservative account and in the institutional and relational spillovers captured in the Whakapapa Economics model.
Access and Participation	Kanapu, with a 425-person active-engagement cohort and nine monetised benefit lines in the Conservative model, is an emerging RSI/SIT workforce pathway designed for Māori from backgrounds historically underrepresented in the RSI/SIT system. Alongside Kanapu, the MAI pathway broadens participation at both pre-doctoral level—440 net unique master's, honours and internship recipients—and at doctoral level. Together the two pathways widen entry into the research system and sustain progression once entry has occurred.
Integration and Collaboration	The Networking and Convening pathway operates across 21 formally linked partner entities, including universities, iwi research entities, Māori research organisations, and international Indigenous partners. This partner infrastructure underpins the collaboration patterns on which the other three pathways depend. It is the operational expression of system integration within the tertiary sector and across the wider Māori research landscape.
International Education	The IIRC, having now run across 11 biennial cycles, is the flagship international Indigenous research platform hosted from New Zealand, with routine engagement across more than 13 countries. Combined with the international reach of *AlterNative* and the *MAI Journal*, it sustains international connectivity that is distinctive rather than substitutable through other tertiary channels.

7.3 Broader Strategic and Policy Alignment

The policy environment has shifted materially over the last several years. The TES 2025–2030 replaces the 2020–2025 strategy and states that its economic-growth orientation is intentional, foregrounding productivity, innovation, commercialisation, and skills-to-employment pathways (TEC, 2025). Māori participation is referenced under the Access and Participation priority, and iwi collaboration under Integration and Collaboration, but the strategy contains no explicit Te Tiriti o Waitangi framing comparable to the previous TES, nor any CoRE-specific or NPM-specific provisions (TEC, 2025).

The wider RSI/SIT reform programme, announced in the Prime Minister's State of the Nation speech on 23 January 2025, is operationally well advanced but statutorily incomplete (MBIE, 2025a). Since 1 July 2025, the seven former Crown Research Institutes have been consolidated administratively into three Public Research Organisations—the New Zealand Institute for Bioeconomy Science, the New Zealand Institute for Earth Science, and the New Zealand Institute for Public Health and Forensic Science—trading under new names while legally remaining Crown entity companies until enabling legislation is passed (MBIE, 2025c). A fourth entity, the New Zealand Institute for Advanced Technology, was announced with a $231 million establishment envelope over 4 years and was officially launched in Auckland on 21 August 2026 as New Zealand's fourth Public Research Organisation (MBIE, 2025b; Watts et al., 2026). Callaghan Innovation's Crown funding ceased on 30 June 2025, and the organisation is in advanced wind-down.

A non-statutory Prime Minister's Science, Innovation and Technology Advisory Council (PMSITAC) was appointed in May 2025; its first substantive output recommended a $122 million-per-year reallocation to advanced technologies, including AI, aerospace, synthetic biology, quantum, and future magnetic and materials technologies, which the government has since accepted (PMSITAC, 2025; Reti, 2026). A new Research Funding New Zealand body, announced on 14 October 2025, will progressively absorb the decision-making roles of the Marsden Fund Council and the MBIE Science Board over a four-year transition (Reti, 2025b).

Alongside this architectural reorganisation, the contestable funds historically most accessible to Māori researchers have become materially tighter. The Marsden Fund was refocused in December 2024, disbanding its humanities and social sciences panels and requiring that approximately half of grants each year demonstrate economic benefit (Collins, 2024). The 2026 round quantum has been reduced to approximately $55.8 million, from $80.3 million in 2025 (Royal Society Te Apārangi, 2024). Commentators, including Professor Tahu Kukutai, now a Co-Director of NPM, have projected, based on the disbanded panels, that the Māori share of funded Marsden investigators is likely to fall from approximately 13% to 5.5% (Kukutai, 2024). The Endeavour Fund's 2025–2027 Investment Plan has been reoriented around wealth creation, commercialisation uplift, and the growth of innovative, high-value exporting firms, and the 2026 round is being delivered as Contract Extensions rather than an open, contestable round (MBIE, 2024a). The Vision Mātauranga policy, meanwhile, has been downgraded in operational status: the 2025–2027 Plan states that it will not be relevant to all proposals, a departure from the dedicated chapter and Māori-led framing of the prior Plan (MBIE, 2024a). Finally, the Te Ara Paerangi Future Pathways review, whose 2022 White Paper committed to embedding Te Tiriti across the design and delivery attributes of the system, was formally discontinued in January 2024 (MBIE, 2024b).

The current RSI/SIT reform architecture contains no dedicated priority for Māori research excellence. The four reform pillars—Economy, Advanced Technology, Environment, and Health and Society—do not include Māori research (MBIE, 2025d). PMSITAC's (2025) terms of reference contain no Māori-designated seat, and its October 2025 prioritisation report makes no substantive reference to Māori research. Mātauranga Māori is referred to in the reform's funding-strategy architecture once, categorised as an enabler alongside workforce (MBIE, 2025d). Vision Mātauranga itself has not been formally rescinded, but it has not been reaffirmed or updated under the current government; its status is best described as a silent legacy retention. These are features of the current policy frameworks, however, not of NPM's contribution.

Within this environment, NPM's contribution maps across all five TES priorities, as the alignment above demonstrates. The pathways map differently but coherently: Achievement through doctoral development; Economic Impact and Innovation through research that reshapes service design and productivity-relevant practice; Access and Participation through Kanapu and MAI; Integration and Collaboration through the partner network; and International Education through the IIRC and the journals. The Conservative BCR of 2.32x confirms that this contribution is legible in orthodox policy terms: every dollar of public investment in NPM has returned at least $2.32 of measurable social value under standard Treasury CBAx discipline. The Whakapapa Economics model BCR of 3.74x shows the additional relational and intergenerational value created through whānau economic resilience, tamariki tertiary attainment uplift, supervision pipeline capacity, research legitimacy and uptake, cultural affirmation, and the reduced relational transaction cost of Māori-trusted research infrastructure.

The structural implication here is sharper than a general observation about commercialisation. As the reform environment weighs growth, advanced technology, and economic impact more heavily, and as the adjacent contestable architecture becomes demonstrably less accessible to Māori researchers, the role of a dedicated Māori research capability and knowledge-brokering platform becomes more important. Māori research contributes knowledge legitimacy, relational infrastructure, intergenerational capability, and cultural continuity. These forms of value often sit outside market exchange, but they are preconditions for many outcomes that the reform environment is itself seeking. A platform such as NPM reduces the risk that Māori research approaches, Māori knowledge infrastructure, and intergenerational Māori research capability are undervalued within narrow commercialisation frames.

7.4 Future Role under Evolving Policy Settings

NPM is a mature, nationally significant research platform with continuous delivery across its 25-year contract arc (2002–2027). It is the only CoRE in New Zealand dedicated to Māori research and the principal institutional node where Māori research capability is concentrated, supported, connected and renewed. Its infrastructure spans 580 MAI doctoral completers, 440 pre-doctoral master's, honours and internship participants, a 425-person Kanapu active-engagement cohort, 11 biennial IIRC cycles, two internationally circulating journals—*AlterNative* and *MAI Journal*—and 21 formally linked partner entities, with international reach across more than 13 countries. NPM is one of 10 TEC-funded CoREs in the current 2021–2028 cycle and is funded at approximately $5 million per annum, with total funding of approximately $37.5 million to 31 December 2028 (TEC, 2024a, 2024b).

The 2028 CoRE re-bid sits within a wider post-2028 design decision that has not yet been announced. The University Advisory Group's (2025) final report recommended that the CoRE scheme continue and be enhanced, and that review processes distinguish new applicants from renewing applicants. The government accepted or partially accepted 23 of the report's 63 recommendations on 2 September 2025 and announced a Tertiary Research Excellence Fund to replace the PBRF in 2028, but no CoREs-specific post-2028 decision has followed (Reti, 2025a). The evaluation evidence presented in this report—a Conservative BCR of 2.32x, a Whakapapa Economics model BCR of 3.74x, and substantive delivery against all five TES priorities—provides an empirical basis for the mid-term review, for the 2028 re-bid, and for any subsequent post-2028 design conversation. NPM has cleared the orthodox public-investment floor, and the wider account shows that its structural contribution is substantially higher than the floor records.

7.5 Amplification Opportunities 2026–2030

The evaluation evidence points to five amplification opportunities for 2026–2030 that follow directly from the findings rather than from external aspiration: (1) the intergenerational research leadership pathway; (2) Kanapu scaling; (3) journal and dissemination infrastructure; (4) partner network extension; and (5) research-to-policy translation. Each is anchored in the evidence base established in the preceding chapters. The organising observation is that these opportunities extend a proven platform, scaling what is already demonstrably working at a moment when adjacent policy and funding architecture is challenging. Together, they define the amplification window from the remainder of the current contract period (2026–2028) through the early post-2028 years (2029–2030).

7.5.1 Intergenerational Research Leadership Pathway

MAI completers are now becoming supervisors, mentors and research leaders in their own right. The Whakapapa Economics model identifies approximately 50 post-2024 MAI-linked doctoral completions attributable to direct tuākana–tēina mentoring by earlier-cohort graduates. The evidence indicates that the measurable value of MAI is entering a second-generation compounding phase, in which each completer can become a node in a supervision network that generates additional completers. This is the Whakapapa Economics model's intergenerational and pipeline logic made concrete: the infrastructure required to sustain the cascade through 2030 is already in place through MAI and its partner network, and a modest uplift in supervision-focused investment would be absorbed rather than require new systems.

7.5.2 Kanapu Scaling

The Kanapu pathway is early-stage, with less than 3 years of steady-state delivery, and the evaluation shows that the 425-person active-engagement cohort has already produced measurable returns across nine monetised domains. Proof-of-concept is established. A clear implication of the findings is that Kanapu is well positioned to scale in 2026–2030 in response to the rising policy and system demand for Māori participation in RSI/SIT pathways, as implicit in the current reform programme. The PMSITAC recommendation to reallocate $122 million per year to advanced technologies, accepted by the government, will generate workforce-capability requirements that Māori-dedicated pipelines are better configured to meet than generic

alternatives (PMSITAC, 2025; Reti, 2026). This evaluation indicates that Kanapu can scale through capacity, tracking, and institutional partnership rather than methodological reinvention.

7.5.3 Journal and Dissemination Infrastructure

AlterNative, with 326,350 downloads, and the *MAI Journal*, with 64,000 views, operate as intellectual and public infrastructure rather than merely publication venues. They give Indigenous and Māori scholarship an international peer-reviewed presence that no substitute channel currently provides. The evidence from the Research and Knowledge pathway indicates that the strategic value of this infrastructure lies in open access and readership multiplication, which makes Indigenous research visible and usable to policy, practice, and partner audiences domestically and internationally. Amplification through 2030 would focus on open-access extensions, translation support, and search discoverability rather than on new publication volume.

7.5.4 Partner Network Extension

NPM's 21 formally linked partner entities already span universities, iwi research entities, government-linked research organisations, and international Indigenous partners. This evaluation indicates that there is unmet value in deepening engagement, specifically with iwi research entities and Māori data sovereignty organisations, where the relational transaction cost of establishing Māori-trusted research connections remains high across the wider system and where NPM's convening authority is already established. The amplification case here rests on relational continuity: each new partner relationship established by NPM has a lower marginal cost than the same relationship established de novo by an adjacent institution.

7.5.5 Research-to-Policy Translation

The Te Arotahi and Aropū series are the primary mechanisms through which NPM-supported research is translated for policy and practice audiences. The evaluation's benefit transfer evidence indicates that these translation functions are among the most productivity-relevant outputs of the Research and Knowledge pathway. The evidence from this evaluation suggests that the formalisation of these translation functions—Te Arotahi and Aropū as enduring functions rather than discrete series—would materially increase the observable policy uptake of Māori research through the 2026–2030 window, during which multiple RSI/SIT-reform implementation decisions will be finalised and the adjacent Māori-research architecture (Vision Mātauranga, Te Ara Paerangi successors, post-2028 CoREs settings) will be either renewed or not. Translated evidence positioned into those decisions has a different weight from untranslated evidence.

7.6 Strategic Positioning as a Critical System Enabler

Alongside the primary investment case, continuation of CoRE funding through the 2028 re-bid and beyond, the evaluation evidence supports a complementary strategic positioning: NPM as a critical system enabler within the reformed RSI/SIT architecture, irrespective of the specific form the post-2028 CoRE settlement takes. NPM's infrastructure retains value across funding mechanisms.

The evidence establishes that NPM's partner network, journal infrastructure, supervision pipeline, convening systems, and research-to-policy translation functions operate, in practice, as de facto system infrastructure for Māori research in New Zealand. The adjacent reforms documented above—the three operational Public Research Organisations, the newly launched New Zealand Institute for Advanced Technology, the Research Funding New Zealand transition, the PMSITAC priority architecture, the refocused Marsden Fund and the reoriented Endeavour Fund—do not contain a counterpart structure for Māori research capability. A post-2028 settlement, whatever its specific form, that formally recognises NPM's existing infrastructure as an enduring system-enabler function rather than as the programme outputs of a single time-bound CoRE contract would protect its value against the risk of reconfiguration without a substitute.

The partner network, the journals, the convening systems, the supervision pipeline, and the Māori research capability architecture that NPM represents would take decades to rebuild if allowed to dissipate. Collectively they are institutional infrastructure built over more than two decades of continuous operation, each element reinforced by its integration with the others. The Whakapapa Economics model quantifies part of what this infrastructure is worth, a PV of $202.88 million beyond the Conservative model PV of $330.73 million. This infrastructure has no short-notice substitute.

NPM's increasing international networks and partnerships, including GIDA, APRU, the Atlantic Fellows for Social Equity and the Tri-Academy Partnership on Indigenous Engagement, strengthen that system-enabling function by connecting Māori research in Aotearoa with global Indigenous research leadership. In a reform environment where Māori research excellence does not appear as a dedicated priority in either the TES or the RSI/SIT architecture, where Te Ara Paerangi has been discontinued, where Vision Mātauranga has been downgraded to conditional relevance in the Endeavour Fund, and where the Marsden Fund's projected Māori-investigator share has fallen to approximately 5.5% (Kukutai, 2024; MBIE, 2024a, 2024b), NPM is the de facto mechanism through which Māori research excellence remains in place at a national scale. The return on continuity is substantially higher than the return on reconstruction.

8. Conclusion

This report has assessed NPM as a long-run public investment in Māori research capability, Māori-led knowledge production, and system-level research infrastructure. The evaluation treats NPM as an integrated Māori research platform because the evidence supports this. Across the period from 2002 to 2024, NPM has built people; produced and translated knowledge; convened national and international networks; and created the relational infrastructure through which Māori research can be sustained, legitimised and renewed.

Against a real 2026 cost base of $142.65 million, the Conservative model produces a PV of $330.73 million and a BCR of 2.32. This is the conservative orthodox account, built from Treasury-aligned CBAx and SROI methods and restricted to outcomes that can be specified, attributed and monetised with sufficient discipline. The Conservative model draws value from multiple benefit lines and pathways, with the doctoral pathway as the largest directly observable value driver. Even within conventional economic appraisal boundaries, NPM has generated returns that are materially above the public-investment break-even threshold.

The Whakapapa Economics model extends that finding by recognising that NPM's value travels beyond the direct participant and the first measurable transaction. In Kaupapa Māori contexts, value moves through whānau, communities, institutions, research networks, and future generations. When those channels are modelled using the disciplined Whakapapa Economics framework, the combined PV increases to $533.61 million, and the parent BCR increases to 3.74. The Conservative model identifies the conservative floor of NPM's contribution; the Whakapapa Economics model shows more of the structure above that floor.

The strongest conclusion from the analysis is that NPM's value is cumulative and systemic. The four impact pathways are analytically separable for modelling purposes and mutually reinforcing in practice. Te Kupenga o MAI builds the researchers who contribute to, supervise and lead later research programmes. Research and Knowledge outputs move into policy, practice, public debate and community use. Convening and journal infrastructure amplify reach, legitimacy and collaboration. Kanapu extends NPM's capability-building logic into the RSI/SIT system. The effects are therefore mutually reinforcing rather than additive in a narrow programme sense. Evaluating NPM as four discrete activity streams would understate the contribution that emerges from their integration.

The report also shows that NPM's contribution is strategically aligned with both the formal CoRE funding mechanism and the current tertiary and research policy environment. Against the July 2020 CoRE determination, NPM demonstrates leading-edge research, world-class researcher development, academic strength, collaboration, public good and economic impacts, equity and wellbeing outcomes, research translation, and national and international authority. Its delivery also aligns with the five priorities of the TES 2025–2030, and its infrastructure is directly relevant to current policy interests in productivity, innovation, workforce pathways, research impact, system integration, and Māori participation. The evidence base supports NPM's positioning as a critical system enabler. Its partner network, journals, supervision pipeline, convening systems, research translation functions and Kaupapa Māori research architecture are not easily substitutable. They are institutional assets built through more than two decades of continuous operation.

At the same time, the findings should be read with the methodological caution applied throughout the report. The models use conservative attribution, defined-benefit boundaries, double-count safeguards, sensitivity testing, and explicit treatment of uncertainty. Some of NPM's most important contributions remain only partially monetised or outside the quantified accounts altogether, including the long-run normalisation of mātauranga Māori, the legitimacy of Māori knowledge holders in academic and policy settings, and the cultural and relational value of a sustained national research infrastructure operating on Māori terms. The reported figures are defensible estimates of measurable value within the available evidence base. Total value extends beyond the monetised accounts.

The overall conclusion of this report is that NPM has delivered substantial public value over the 2002–2024 evaluation period. It has cleared the orthodox economic test, generated wider relational and intergenerational value, met and exceeded formal CoRE expectations, and built a Māori research ecosystem whose importance extends beyond the outputs of any single funding cycle. The evidence supports the central proposition of this report: sustained investment in NPM has produced measurable returns and enabled a form of research infrastructure that is essential to Māori research excellence, to a more responsive tertiary and research system, and to the foundations for flourishing Māori futures.

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Appendix A

Te Kupenga o MAI: Doctoral Quantified Benefits

Higher Earnings

Benefit overview: NPM/MAI doctoral completers transition into higher-paid roles across academia, the public service, iwi organisations and the knowledge economy, lifting disposable income for graduates and whānau. Te Kupenga o MAI supports this through scholarships, mentoring, and a 14-site national network.

Economic measure and value: Annual earnings differential for Māori PhD graduates vs. matched Māori without a PhD. We apply $45,890 per person per annum (real 2026 NZD), derived from Kokaua et al.'s (2025) time-weighted IDI differential of $42,700 (2018 NZD) uplifted via the CBAx GDP inflator. Private earnings benefits are reported net of income tax and ACC earner levy. The fiscal companion lines report the Crown revenue component of the same gross earnings uplift. The two are separated by incidence and are not additional to a gross earnings measure. Under this convention, the private line, the fiscal line, and their sum carry distinct meanings: the private line is the after-tax disposable income accruing to the individual; the fiscal line is the Crown revenue share; and the sum is the gross earnings uplift. Summing gross earnings with the tax companion would double-count the same economic value.

Causality and attribution: All 580 completers enter at segment share. Success rate is held at 35% across 15 years, absorbing attribution, deadweight, and residual uncertainty. Units per person is at 1.00, consistent with Kokaua et al.'s evidence of differential persistence through year 15.

Table 31. Annual segment share, success rate and units per person: Higher earnings

Year	Success rate	Segment share	Units per person
Y1–15	35%	100%	1.0

Population-level impact: The programme delivers 203 person-years per annum of credited earnings uplift, generating a PV of $120.89m at 2% over 15 years.

Justification and evidence: Kokaua et al. (2025) tracked 996 Māori PhD graduates (the full study population, distinct from the 580 NPM/MAI-supported completers modelled in this report) against 3,210 matched Māori without a PhD via Stats NZ's IDI, evidencing persistent earnings differentials to year 15. Mahoney (2014) and Theodore et al. (2018, 2020) confirm the pattern; Pihama et al. (2019) establish MAI's Kaupapa Māori approach as substantively additive. With Māori men earning 86 cents for every dollar earned by Pākehā men (Richardson, 2024), NPM/MAI addresses this inequity by building graduates into high-skill roles. Effective credited earnings of $23,080 per annum sit within plausible PhD-over-bachelor's ranges.

Higher Taxable Income and Government Revenue

Benefit overview: This benefit is the fiscal companion to higher earnings, capturing the share of the earnings uplift that accrues to the Crown through personal income tax and the ACC earner levy, available for redeployment across government services.

Economic metric and value: Annual incremental tax and ACC revenue attributable to the higher earnings differential. We apply $20,052 per person per annum (real 2026 NZD), computed as New Zealand 2025/26 marginal income tax ($18,930) plus ACC earner levy at 1.67% ($1,101) on the $65,942.25 differential, assuming a conservative $40,000 counterfactual base income. Effective marginal rate is 30.4%.

Causality and attribution: Parameters mirror the earning benefit exactly. All 580 completers enter at segment share. The success rate is held at 35% across 15 years, and units per person at 1.00 throughout, consistent with the earnings persistence evidence.

Table 32. Annual segment share, success rate and units per person: Higher taxable income

Year	Success rate	Segment share	Units per person
Y1–15	35%	100%	1.0

Population-level impact: The programme delivers 203 person-years per annum of credited fiscal uplift, generating an annual undiscounted return of $4.07m and a PV of $52.82m at 2% over 15 years.

Justification and evidence: CBAx supports the separation of private and fiscal incidence where a programme generates both individual income gains and Crown revenue. Mana Āheinga identifies Māori advanced capability as a contributor to the fiscal base. The proxy is rule-based and transparent, applying current New Zealand tax architecture to Kokaua et al.'s (2025) differential, and conservative GST and indirect taxes are excluded. The 35% success rate nets out fiscal revenue from completions occurring independently of NPM/MAI.

Reduced Welfare Reliance and Jobseeker Support

Benefit overview: This benefit captures the fiscal saving to government from reduced Jobseeker Support receipt among NPM/MAI doctoral completers. PhD graduates are substantially less likely than matched peers without a PhD to experience periods of unemployment benefit receipt.

Economic metric and value: Annual avoided Jobseeker Support payment per avoided person-year. We apply $19,709.01 per avoided person-year (CBAx Database: Jobseeker Support, single, 25+, without children; 2025 Work and Income rate uplifted to real 2026 NZD). The proxy is a floor, excluding administrative and indirect welfare-system costs.

Causality and attribution: All 580 completers enter at segment share 100%. The success rate is held at 25% to reflect welfare-avoidance effect is partly driven by selection factors that would reduce benefit receipt regardless of the doctorate. Units per person at 0.05 reflects that fewer than 5% of the cohort were plausibly at risk of benefit receipt. Duration is capped at 5 years.

Table 33. Annual segment share, success rate and units per person: Reduced welfare reliance and jobseeker support

Year	Success rate	Segment share	Units per person
Y1–5	25%	100%	0.05

Population-level impact: The programme delivers 7.25 avoided person-years per annum, generating an annual undiscounted fiscal saving of $142,893 and a PV of $680,223 at 2% over 5 years.

Justification and evidence: Kokaua et al. (2025) report that fewer than 2% of Māori PhD graduates were on an unemployment benefit at graduation, with 93% having IRD income recorded, and adjusted odds of benefit receipt 95% lower than matched Māori without a PhD. Triple-layered conservatism (25% success rate, 0.05 units per person, 5-year duration) reflects both the narrow at-risk fraction and selection effects inherent in Māori doctoral study, producing a floor-level valuation.

Housing Security and Material Wellbeing

Benefit overview: This benefit captures household-level wellbeing gains from improved housing security and material conditions among NPM/MAI doctoral completers, operating through the earnings pathway and the financial-stability effects of MAI's whanaungatanga-based support network.

Economic metric and value: Annual housing and material wellbeing uplift per person. We apply $3,194.39 per person per annum (CBAx Database Row 167: House condition with minor problems; 2019 value uplifted to real 2026 NZD). The proxy is a floor: a home-ownership wealth proxy would be substantially larger but harder to attribute to the doctorate itself.

Causality and attribution: All 580 completers enter at segment share 100%. The success rate is held at 20% to reflect the distal causal chain and confounding from age, partner status, and independent income trajectories. Units per person at 0.25 reflects partial achievement. Duration is capped at 5 years.

Table 34. Annual segment share, success rate and units per person: Housing security and material wellbeing

Year	Success rate	Segment share	Units per person
Y1–5	20%	100%	0.25

Population-level impact: The programme delivers 29.0 units per annum, generating an annual undiscounted value of $92,637 and a PV of $440,987 at 2% over 5 years.

Justification and evidence: Kokaua et al. (2025) report that holding a PhD increases Māori home-ownership odds by 70%, producing a 17-percentage-point ownership gap (75% vs 58%), with Māori PhD graduates twice as likely to live in the least-deprived areas. NPM/MAI's mechanism for supporting improved housing outcomes operates through two complementary channels. The direct channel is the earnings pathway: higher and more stable incomes enable access to better-quality housing and a higher probability of home ownership. The indirect

channel is the culturally grounded support network MAI provides: whanaungatanga-based peer networks and mentoring support long-term financial planning, financial literacy, and the stability that enables large household decisions such as home purchase.

Community and Whānau Contribution

Benefit overview: This benefit captures the non-market social value generated by NPM/MAI doctoral completers' enduring contribution to whānau, hapū, iwi and community, including voluntary roles, governance service, and cultural and technical knowledge transmission. It is among the most distinctive findings in the anchor evidence base.

Economic metric and value: Annual value of regular voluntary contribution per person-year. We apply $786.33 per person-year (CBAx Database Row 235: Adult regular volunteering, weekly; 2022 value uplifted to real 2026 NZD). The proxy is narrow, valuing time and engagement only and excluding broader governance, leadership, and cultural-transmission dimensions.

Causality and attribution: All 580 completers enter at segment share. The success rate is held at 15%, a deliberately tight attribution reflecting high deadweight from self-selection of community-oriented individuals into Māori doctoral study. Units per person is at 0.25. Duration extends to 20 years, reflecting the enduring nature of community engagement.

Table 35. Annual segment share, success rate and units per person: Community and whānau contribution

Year	Success rate	Segment share	Units per person
Y1–20	15%	100%	0.25

Population-level impact: The programme delivers 21.75 units per annum, generating an annual undiscounted value of approximately $17,103 and a PV of approximately $0.28m at 2% over 20 years.

Justification and evidence: Kokaua et al. (2025) report that Māori PhD graduates are ~50% more likely than matched Māori without a PhD to hold four or more voluntary roles, and nearly three times more likely than non-Māori non-Pacific PhD graduates. Kidman et al. (2015) and Pihama et al. (2019) establish community contribution as a substantive outcome of Māori doctoral education grounded in whanaungatanga and manaakitanga. The tight 15% success rate absorbs deadweight from pre-existing community orientation.

Reduced Health System Utilisation

Benefit overview: This benefit captures the avoided fiscal cost of reduced hospital-level health system utilisation among NPM/MAI doctoral completers. The mechanism operates through the cultural-identity-to-health pathway articulated in Te Whare Tapa Whā (Durie, 2001) and He Ara Waiora (New Zealand Treasury, 2024).

Economic metric and value: Annual avoided inpatient-visit equivalent per person-year. We apply $7,925.68 per avoided inpatient-visit equivalent (CBAx Database: Inpatient hospital visit;

Pharmac-based value uplifted to real 2026 NZD). The proxy is narrow, excluding broader health-wellbeing values such as QALYs or primary-care avoidance.

Causality and attribution: All 580 completers enter at segment share 100%. The success rate is held at 10% the tightest attribution across the base case, reflecting the distal causal chain and residual confounding risk. Units per person is at 0.05, and duration is capped at 5 years.

Table 36. Annual segment share, success rate and units per person: Reduced health system utilisation

Year	Success rate	Segment share	Units per person
Y1–5	10%	100%	0.05

Population-level impact: The programme delivers 2.90 units per annum, generating an annual undiscounted fiscal saving of $22,984 and a PV of $109,414 at 2% over 5 years.

Justification and evidence: Kokaua et al. (2025) report that Māori and Pacific PhD graduates are less likely than matched peers to have serious health issues requiring hospital-level treatment, and more likely to live in healthier neighbourhoods. Te Whare Tapa Whā positions cultural identity as a critical prerequisite for health, and He Ara Waiora embeds cultural and relational dimensions of wellbeing. Direct quantitative evidence is thin relative to other lines, so near-minimal crediting applies the model's most conservative attribution, producing the smallest base case PV while preserving a defensible floor for the health pathway.

Te Kupenga o MAI: Pre-Doctoral Quantified Benefits

Master's Earnings Uplift

Benefit overview: Te Kupenga o MAI master's scholarship and completion award recipients (Kia Ita and Master's Completion Awards) receive NPM financial support to complete a master's qualification (NZQF Level 9), generating an incremental earnings premium above the bachelor's-level counterfactual.

Economic metric and value: Annual master's-over-bachelor's earnings premium for Māori workers. We apply $10,500 per person per annum (real 2026 NZD, CBAx Database), triangulated from the Universities New Zealand (n.d.) 2018 Census-based lifetime premium ($10,300), the OECD's (2023) *Education at a Glance* report earnings index ($10,000), and the Ministry of Education's (2024a) IDI post-study data ($10,000–$12,000 career-averaged).

Causality and attribution: Segment share 16% (72 persons). Base success rate 20%, mechanically derived as the gap between with-programme (75%) and BAU (55%) master's completion rates. The rate declines to 18% (Y6–Y7), 16% (Y8–Y9) and 14% (Y10), reflecting attrition and erosion of the qualification premium.

Table 37. Annual segment share, success rate and units per person: Master's earnings uplift

Year	Success rate	Segment share	Units per person
Y1–5	20%	16%	1.00
Y6–Y7	18%	16%	1.00
Y8–Y9	16%	16%	1.00
Y10	14%	16%	1.00

Population-level impact: Across the 72-person master's sub-segment, the programme generates a 10-year CBAx PV of $1,250,742 at 2%, equivalent to $17,371 per master's recipient. Year-by-year PV ranges from $149,128 (Y1) down to $87,349 (Y10).

Justification and evidence: Universities New Zealand (n.d.) reports lifetime premiums of $1.70m for a master's vs $1.37m for a bachelor's, a $330k incremental gap annualised to ~$10,300. OECD (2023) shows New Zealand master's earners at 152.8% of upper secondary vs 134.2% for bachelor's (13.9% premium). Mahoney (2014) provides Māori-specific supporting evidence. Attribution is mechanically conservative: only the 20% BAU-gap increment is credited to NPM, with the 55% who would complete anyway netted out as deadweight. Doctoral completers are excluded under the doctoral model fence.

Honours Earnings Uplift

Benefit overview: Te Kupenga o MAI Honours Completion Award recipients receive NPM support to complete an honours year (NZQF Level 8), generating a blended earnings premium above bachelor's plus partial pathway value from postgraduate progression.

Economic metric and value: Annual blended honours-over-bachelor's earnings premium plus pathway component. We apply $4,500 per person per annum (real 2026 NZD, CBAx Database), anchored to Education Counts Table F3 (honours 33% vs bachelor's 22% above age-matched median at year 5, ~$6,050 peak) and international ratio evidence from the United Kingdom's Higher Education Statistics Agency (HESA) and the Australian Graduate Outcomes Survey (GOS), which place honours at 40–60% of the master's premium.

Causality and attribution: Segment share at 19.6% (86 persons) represents Honours Completion Award recipients. Success rate starts at 15%, declining sharply to 12% (Y3), 9% (Y4) and 6% (Y5), reflecting high attrition and the fading relevance of a one-year qualification extension.

Table 38. Annual segment share, success rate and units per person: Honours earnings uplift

Year	Success rate	Segment share	Units per person
Y1–2	15%	20%	1.00
Y3	12%	20%	1.00
Y4	9%	20%	1.00
Y5	6%	20%	1.00

Population-level impact: Across the 86-person honours sub-segment, the programme generates a 5-year CBAx PV of $212,355 at 2%, equivalent to $2,469 per Honours recipient.

Justification and evidence: Education Counts Table F3 (2023 tax data) reports honours graduates earn 33% above age-matched median vs 22% for a bachelor's at year 5, an 11-percentage-point gap equating to $6,050/yr peak. Engineering honours benchmarks at $6,700 ($65,000 vs $58,300). HESA and the GOS consistently place the honours premium at 40–60% of the master's premium, supporting the $4,500 central estimate. The harder taper reflects both attrition and the fading relevance of a one-year qualification extension. Honours recipients progressing to a PhD are excluded under the doctoral model fence.

Internship Early-Career Employment Effect

Benefit overview: Recipients of NPM research internships (summer, Raumati, Matariki, Borrin Legal Summer, Cawthron Te Pītau Whakarei, Te Kāhui Raraunga, and other named partner placements) receive structured placements into research environments, generating short-run labour-market acceleration through earlier employment entry and employer signalling.

Economic metric and value: Annual short-run earnings advantage from earlier employment entry and employability signalling. We apply $4,500 per person per annum (real 2026 NZD, CBAx Database), calibrated as approximately 1 month of the New Zealand graduate salary (~$55,000 ÷ 12), conservative relative to international evidence in the range $3,100–$6,000.

Causality and attribution: Segment share at 43.5% (191 persons) represents internship recipients. Success rate declines across the 3-year window: 52.5% (Y0), 50% (Y1), 47% (Y2). The 3-percentage-point annual step-down models empirically documented fade-out as non-intern peers catch up. The line extinguishes after Y2.

Table 39. Annual segment share, success rate and units per person: Internship early-career effect

Year	Success rate	Segment share	Units per person
Y0	52.5%	43.5%	1.00
Y1	50.0%	43.5%	1.00
Y2	47.0%	43.5%	1.00

Population-level impact: Across the 191-person internship sub-segment, the programme generates a 3-year CBAx PV of $1,251,032 at 2%, equivalent to $6,550 per internship recipient. Year PVs: $447,727 (Y0), $418,046 (Y1), $385,258 (Y2).

Justification and evidence: International evidence anchors the proxy: Oswald-Egg and Renold (2021) report 2 months reduced job-search time; Nunley et al. (2016) document a 14% higher interview callback rate; Margaryan et al. (2022) find 6% wage increase; Baert et al. (2021) confirm via a randomised controlled trial (RCT). Fade-out is supported by Neyt et al. (2019) and Weiss et al. (2014). No New Zealand-specific quantitative study exists, a recognised evidence gap, with NPM recommended to commission an alumni follow-up survey.

Volunteerism and Community Contribution

Benefit overview: This benefit captures the incremental volunteer and community contribution value for the full 440-person cohort of NPM pre-doctoral direct-support recipients, scaled to 60% of full civic participation units to reflect pre-doctoral civic rates relative to the PhD cohort.

Economic metric and value: Annual value of regular adult volunteering per person-year. We apply $786 per person-year (CBAx Database row 235: Adult regular volunteering, GDP-adjusted to real 2026 NZD), multiplied by 0.6 units per person for pre-doctoral scaling.

Causality and attribution: Segment share is 100% (all 440 recipients). Success rate is 56%, flat across all 20 years with no taper. Units per person is 0.6 (60% scaling from full civic rate). Duration is 20 years (Y1–Y20), reflecting that volunteering is a stable lifestyle pattern rather than an eroding labour-market premium.

Table 40. Annual segment share, success rate and units per person: Volunteerism and community contribution

Year	Success rate	Segment share	Units per person
Y1–20	56%	100%	0.6

Population-level impact: Across the full 440-person cohort, the programme generates a 20-year CBAx PV of $1,919,778 at 2%, equivalent to ~$4,363 per recipient. Annual PV declines gently from $115,105 (Y3) to ~$75,880 (Y22) under discounting.

Justification and evidence: CBAx Database row 235 ($786.33) captures the value of regular adult volunteering. The 60% scaling is from Kokaua et al.'s (2025) IDI evidence, showing Māori PhD graduates are three times more likely to volunteer than Māori non-PhD holders. This implies pre-doctoral recipients sit at 60% of the PhD civic rate. Volunteering, once established, persists as a stable lifestyle pattern, supporting the flat 20-year duration without taper. One civic line is claimed per person across NPM models. Master's-specific IDI civic analysis would replace the 60% scaling assumption.

Kanapu Quantified Benefits

This model covers Kanapu, the RSI/SIT workforce development pathway of NPM. Kanapu supports Māori researchers, scientists, innovators, and knowledge holders to navigate, enter and progress within the RSI/SIT system, operating through structured mentoring (Te Ako Rau), masterclasses, national and regional wānanga, Tūhono Rau Tangata mātanga talks, and the Hui Hihiri national gatherings.

Income Uplift from Transition into RSI/SIT Employment

Benefit overview: Kanapu participants transition into salaried RSI/SIT roles through Te Ako Rau structured mentoring, masterclasses, mātanga talks, and wānanga.

Economic metric and value: Annual earnings differential from transitioning into paid RSI/SIT roles. We apply $15,600 per person per annum (2025 NZD; $16,364 in 2026 NZD), triangulated

from Stats NZ Māori median earnings ($66,560; Stats NZ, 2025b), SEEK/Glassdoor RSI/SIT clusters ($78,000–$85,000; Glassdoor, n.d.; SEEK, n.d.), and a conservative $60,000 counterfactual. Sensitivity: $12,000–$25,000. Reported as after-tax disposable income. The corresponding fiscal (tax + ACC earner levy) component is reported separately under K03/K04, and the two are separated by incidence.

Causality and attribution: Segment share is 7% of the 425-person cohort (50% of the 61-person auditable labour-market base). Success rate is 12%, absorbing attribution and deadweight. Unit profile tapers: Y1: 0.80, Y2: 1.00, Y3: 0.90, Y4: 0.80, Y5: 0.70, reflecting partial onboarding and declining sustained retention.

Table 41. Annual segment share, success rate and units per person: Income uplift from transition into RSI/SIT employment

Year	Success rate	Segment share	Units per person
Y1	12%	7%	0.80
Y2	12%	7%	1.00
Y3	12%	7%	0.90
Y4	12%	7%	0.80
Y5	12%	7%	0.70

Population-level impact: Across the 61-person auditable labour-market base, the programme generates a 5-year CBAx PV of $240,057 at 2%.

Justification and evidence: The RSI Workforce Survey (MBIE, 2022) confirms Māori at 11% of tertiary education institute staff and 5% of research organisation staff—both lower than the Māori population share (17%). This is the structural gap Kanapu's transitions address. Te Ako Rau delivers structured mentoring (132 participants, 102 completers from January 2024 to May 2025), Hui Hihiri national wānanga (220 attendees), mātanga talks (895 attendees across both series), and Kanapu Connect. McAllister et al. (2019) establish the contextual barriers. The 12% success rate and unit taper net out attribution to sector demand and individual initiative.

Income Uplift within Existing RSI/SIT Roles

Benefit overview: Participants already employed in RSI/SIT-adjacent roles experience earnings uplift through Kanapu-attributable promotion, role reclassification, additional funded projects, or research-path progression—mechanisms directly supported by masterclass funding-navigation content and mātanga talks.

Economic metric and value: Annual within-role earnings uplift. We apply $4,615 per person per annum (2025 NZD; $4,841 in 2026 NZD), a conservative blended figure from four mechanisms: within-band step 3–4%, additional funded project income ($5,000–$8,000 with partial attribution), research-path reclassification (12.5% Auckland University of Technology [AUT] differential), and senior research scientist premium ($19,900). Reported as after-tax disposable income. The corresponding fiscal (tax + ACC earner levy) component is reported separately under K03/K04, and the two are separated by incidence.

Causality and attribution: Segment share is 7.18% of 425 (50% of the 61-person auditable labour-market base). Success rate is at 15%, absorbing attribution and deadweight. Unit profile tapers: Y1–Y2: 1.00, Y3: 0.90, Y4: 0.80, Y5: 0.70.

Table 42. Annual segment share, success rate and units per person: Income uplift within existing RSI/SIT roles

Year	Success rate	Segment share	Units per person
Y1	15%	7%	1.00
Y2	15%	7%	1.00
Y3	15%	7%	0.90
Y4	15%	7%	0.80
Y5	15%	7%	0.70

Population-level impact: Across the 61-person auditable labour-market base, the programme generates a 5-year CBAx PV of $93,159 at 2%.

Justification and evidence: Evidence converges from Glassdoor (New Zealand Scientist $83,800), PayScale (Research Scientist $79,563; Senior Research Scientist $99,456; a $19,900 differential), SEEK ($85,000–$105,000 researcher roles), and Careers NZ (senior lecturers $91,000–$142,000). MBIE Vision Mātauranga data shows only 97 individual Māori researchers in funded projects across 2019–2020—the gap Kanapu's masterclass funding-navigation content addresses. No single mechanism needs to carry the full proxy; the conservative 15% success rate nets out attribution to natural career progression and employer-driven pay increases.

Higher Taxable Income/Government Revenue (Career Transition)

Benefit overview: K03 captures the Crown's share of the K01 earnings uplift through personal income tax and the ACC earner levy. It mirrors all K01 parameters exactly and does not carry independent attribution.

Economic metric and value: Annual fiscal revenue on the K01 earnings differential. We apply $4,400 per person per annum (2025 NZD), approximately a 22% effective rate on the $20,000 K01 proxy, consistent with New Zealand 2025/26 tax brackets and the ACC earner levy.

Causality and attribution: Mirrors the career transition benefit exactly: cohort 425, segment 7%, success rate 12%, unit profile Y1: 0.80, Y2: 1.00, Y3: 0.90, Y4: 0.80, Y5: 0.70. Duration: 5 years. The benefit is mechanical and carries no independent attribution.

Table 43. Annual segment share, success rate and units per person: Higher taxable income/government revenue (career transition)

Year	Success rate	Segment share	Units per person
Y1	12%	7%	0.8
Y2	12%	7%	1.00
Y3	12%	7%	0.90
Y4	12%	7%	0.80
Y5	12%	7%	0.70

Population-level impact: Across the same 61-person auditable labour-market base, K03 generates a 5-year CBAx PV of $67,708 at 2%, or 4.3% of total model PV.

Justification and evidence: This benefit is a fiscal companion applying current New Zealand 2025/26 tax architecture and ACC settings to the career transition earnings differential. The 22% effective rate reflects the blended marginal income tax and ACC earner levy on the $20,000 K01 proxy. It carries no independent attribution and is not adjusted for deadweight separately. All attribution discipline is inherited through the mirrored parameters.

Higher Taxable Income / Government Revenue (Career Progression)

Benefit overview: This benefit captures the Crown's share of an in-role earnings uplift through personal income tax and the ACC earner levy. It mirrors all the benefit parameters exactly and does not carry independent attribution.

Economic metric and value: Annual fiscal revenue on the K02 in-role earnings differential. We apply $1,320 per person per annum (2025 NZD), approximately a 22% effective rate on the $6,000 proxy, consistent with New Zealand 2025/26 tax brackets and the ACC earner levy.

Causality and attribution: Mirrors K02 exactly: cohort 425, segment 7%, success rate 15%, unit profile tapers: Y1–Y2: 1.00, Y3: 0.90, Y4: 0.80, Y5: 0.70. Duration: 5 years. The benefit is mechanical and carries no independent attribution.

Table 44. Annual segment share, success rate and units per person: Higher taxable income/government (career progression)

Year	Success rate	Segment share	Units per person
Y1	15%	7%	1.00
Y2	15%	7%	1.00
Y3	15%	7%	0.90
Y4	15%	7%	0.80
Y5	15%	7%	0.70

Population-level impact: Across the 61-person auditable labour-market base, K04 generates a 5-year CBAx PV of $27,958 at 2%, or 1.8% of total model PV.

Justification and evidence: This benefit is the fiscal companion applying current New Zealand 2025/26 tax architecture and ACC settings to the in-role earnings differential. The combined fiscal lines total $95,666, or 6.0% of total model PV—representing the Crown's aggregate share of the earnings uplift captured from increased income through career progression and transition into RSI/SIT employment.

Postgraduate Progression Earnings Uplift

Benefit overview: Kanapu participants progress through honours, master's or PhD pathways enabled by masterclasses, Hui Hihiri wānanga, and mātanga talks generating later annual earnings premiums. The proxy is deliberately pre-doctoral to avoid overlap with the MAI doctoral model.

Economic metric and value: Annual blended post-completion earnings premium. We apply $8,000 per person per annum ($8,392 in 2026 NZD), set below the $52,264 doctoral-specific premium used in MAI because it captures a blended honours/master's/PhD cohort.

Causality and attribution: Segment share is 18% of 425-person cohort (40% of the 187-person masterclass education-progression cohort). Success rate is 5%, reflecting high deadweight—most postgraduate enrolment decisions are driven by factors outside the programme. Unit profile: 1.00 flat across Y1–Y10.

Table 45. Annual segment share, success rate and units per person: Postgraduate progression earnings uplift

Year	Success rate	Segment share	Units per person
Y1–10	5%	18%	1.00

Population-level impact: Across the 187-person masterclass education-progression cohort, K05 generates a 10-year CBAx PV of $284,730 at 2%, or 17.9% of total model PV, the second-largest benefit line.

Justification and evidence: The benefit is grounded in the Te Arotahi and Aropū series qualification earnings evidence and supported by Kokaua et al.'s (2025) IDI data, with the proxy deliberately pre-doctoral because Kanapu participants enter postgraduate study at earlier career stages and may not complete doctoral programmes. The low 5% success rate reflects that Kanapu's role is inspirational/enabling rather than funding.

Faster Labour-Market Entry / Avoided Job-Search Friction

Benefit overview: Kanapu participants achieve faster entry into RSI/SIT employment through Kanapu Connect sector navigation, Te Ako Rau mentoring connections, and direct introductions to RSI/SIT employers, reducing job-search duration and avoiding the associated one-off friction cost.

Economic metric and value: One-off avoided job-search friction cost per participant. We apply $8,000 per person (2025 NZD; CBAx Database row 302), representing the typical transitional cost of a graduate-level job search. Entered as Y1 one-off with no persistence.

Causality and attribution: Segment share 4.31% of 425 (30% of the 61-person auditable labour-market base). Success rate is set at 20%, absorbing attribution and partial achievement. Unit profile: Y1 1.00 one-off. Duration: 1 year only.

Table 46. Annual segment share, success rate and units per person: Faster labour-market entry / avoided job-search friction

Year	Success rate	Segment share	Units per person
Y1	20%	4%	1.00

Population-level impact: Across the 61-person auditable labour-market base, the benefits generate a one-off CBAx PV of $30,441 at 2%, or 1.9% of total model PV.

Justification and evidence: The effect is plausible but less directly evidenced than the earnings lines. Kanapu Connect (sector navigation) and Te Ako Rau structured mentoring reduce search friction by connecting participants with RSI/SIT employers and funded opportunities. The tight 4% segment share reflects that very few participants are in active job search at engagement; the 20% success rate absorbs deadweight from diffuse networking effects.

Reduced Welfare Reliance / Jobseeker Support

Benefit overview: This benefit captures the fiscal saving to government from reduced jobseeker support receipt among Te Ako Rau mentoring completers who would otherwise experience periods of benefit receipt in precarious employment. The line is strictly fenced to the 102-person mentoring completer cohort.

Economic metric and value: Annual avoided Jobseeker Support payment per avoided benefit-year. We apply $20,000 per avoided benefit-year (2025 NZD; MSD Jobseeker Support annual cost, via CBAx Database), multiplied by 0.10 units per person to reflect the low average Jobseeker exposure among the at-risk sub-group.

Causality and attribution: Segment share is 9.60% of 425 (40% of the 102-person Te Ako Rau completer cohort C04). Success rate is 8%, reflecting minimal marginal welfare-avoidance attributable to mentoring alone. Units per person: 0.10 (fractional). Duration: 2 years (Y1–Y2).

Table 47. Annual segment share, success rate and units per person: Reduced welfare reliance / Jobseeker Support

Year	Success rate	Segment share	Units per person
Y1	8%	10%	0.1
Y2	8%	10%	0.1

Population-level impact: Across the 102-person Te Ako Rau completer cohort, K07 generates a 2-year CBAx PV of $10,988 at 2%, or 0.7% of total model PV, the smallest fiscal line in the model.

Justification and evidence: Kanapu participants are generally employed or in education, so the at-risk-of-Jobseeker population is very small. The fractional 0.10 units per person constraint is

the primary conservatism lever. The MSD Jobseeker Support rate (April 2025) provides the proxy anchor. The tight parameter stack (9.60% × 8% × 0.10 × 2 years) produces a near-floor monetised value, appropriate given that welfare avoidance from networking/mentoring is diffuse and not solely attributable to Kanapu.

Community and Civic Contribution Uplift

Benefit overview: K08 captures the incremental volunteer and community contribution value generated by Kanapu's whanaungatanga model and Hui Hihiri national gatherings. The line applies across the full 425-person active-engagement cohort, with a 50% Y2 decay reflecting the short persistence of mentoring-induced civic uplift.

Economic metric and value: Annual value of regular adult volunteering per person. We apply $786.33 per person per annum (CBAx Database rows 305–306), consistent with the MAI PhD B05 source and Stats NZ's non-market time-use valuation.

Causality and attribution: Segment share is 10% of the 425-person active-engagement cohort (C02). Success rate is 20%, reflecting high self-selection deadweight—participants bring pre-existing community orientation. Unit profile tapers: Y1: 1.00, Y2: 0.50 (50% decay). Duration: 2 years.

Table 48. Annual segment share, success rate and units per person: Community and civic contribution uplift

Year	Success rate	Segment share	Units per person
Y1	20%	10%	1.0
Y2	20%	10%	0.5

Population-level impact: Across the 425-person active-engagement cohort, K08 generates a 2-year CBAx PV of $9,862 at 2%, or 0.6% of total model PV.

Justification and evidence: The civic contribution effect is real but associational participants bring pre-existing community orientation. The tight 10% × 20% parameter stack and 50% Y2 decay absorb this self-selection deadweight. Kanapu's whanaungatanga model and Hui Hihiri national wānanga (220 attendees) cultivate cross-regional community engagement as a deliberate programme outcome.

Subjective Wellbeing Uplift (WELLBY)

Benefit overview: This benefit captures the composite subjective wellbeing uplift from Kanapu participation through social connection, hope and career aspiration, and meaningful structured activity.

Economic metric and value: Annual value per life satisfaction point per person. We apply $16,784 per point per year (CBAx Database, WELLBY midpoint, real 2026 NZD).

Causality and attribution: Segment share is 100% of the 425-person cohort. All active-engagement participants are exposed to programme mechanisms; filtering is via success rates and

units. Success rate is 30%, anchored to Te Ako Rau completers (24% of cohort) and mātanga talks satisfaction (96% ≥4/5). Unit profile tapers: Y1: 0.15, Y2: 0.12, Y3: 0.08.

Table 49. Annual segment share, success rate and units per person: Subjective wellbeing uplift (WELLBY)

Year	Success rate	Segment share	Units per person
Y1	30%	100%	0.15
Y2	30%	100%	0.12
Y3	30%	100%	0.08

Population-level impact: Across the full 425-person cohort, the benefit generates a 3-year CBAx PV of $730,006 at 2%, or 45.9% of total model PV, the largest single benefit line.

Justification and evidence: The life satisfaction shift is generated through three mechanisms: social connection, hope/purpose, and meaningful structured activity. Evidence anchors include Wilkie et al.'s (2026) Nature Human Behaviour network meta-analysis (183 RCTs) and Steffens et al.'s (2021) meta-analysis of social identification-building interventions (g = 0.66); Collings et al.'s (2014) controlled mentoring evaluation; Bell and Petkova's (2023) evaluation of the long-run effects of mentors; Bolier et al.'s (2013) decay calibration; and Shortlidge et al.'s (2024) STEM belonging evidence. The benefit sits in the subjective wellbeing domain, distinct from income, knowledge and skills, and engagement, with no overlap.

Appendix B

NPM has funded many projects and programmes across 2002–2024, generated Māori and Indigenous knowledge, informed practice, and shaped policy. From the hundreds of projects NPM funded or co-funded across its four Pae over this period, the case studies below represent the most robustly evidenced examples of research producing traceable impact beyond the university sector. They are organised across six domains:

1. Policy and Governance Influence
2. Environment, Science and Kaitiakitanga
3. Health and Wellbeing
4. Economy and Innovation
5. Language, Culture and Mātauranga Māori
6. Institutional Capability and Research Infrastructure

Each is summarised below to include the time period, NPM role, scale, outcomes and significance.

Domain 1: Policy and Governance Influence

- **ZePA language model (2010–2013):** A tripartite programme developed the Zero–Passive–Active (ZePa) language planning framework, adopted as a policy and assessment tool by six government and broadcasting agencies.
- **Te Kotahitanga (2002–2005):** Russell Bishop's research on culturally responsive pedagogy became a Ministry of Education-funded national teacher professional development programme—NPM's earliest major research-to-Crown policy translation.
- **Assisted human reproduction (AHR) study (2007–2008):** First authoritative study of Māori views on AHR, informing senior advisors, the biotechnology community, and Bioethics Council proceedings.
- **Whānau Ora research (2009–2012):** Five projects co-funded with the Health Research Council, ACC, and the Families Commission fed directly into the evidence base for the national Whānau Ora policy model.
- **Te Arotahi policy series (2019–present):** A sustained research-to-policy translation platform engaging ~200 analysts at launch, with papers on tamariki care, precariat households, imprisonment, institutional racism, and Māori economic participation.
- **Legal personhood precedents (2010–2017):** NPM-linked legal scholarship, particularly Jacinta Ruru's work, contributed conceptual foundations for the Te Urewera Act 2014 and Te Awa Tupua Act 2017—globally unprecedented innovations.
- **Matariki public holiday (2010–2022):** Maramataka and seasonal knowledge research contributed to the evidence base establishing Matariki as the world's first Indigenous public holiday, first observed 24 June 2022.
- **Kāpō Māori COVID-19 briefing (2020–2021):** A targeted research briefing on disability-inclusive COVID-19 response was delivered directly to the Minister for Disability Issues—Cabinet-level influence within an operationally critical timeframe.

Domain 2: Environment, Science and Kaitiakitanga

- **Animal navigation / Pigeon GPS (2005–2010):** Basic navigation research published in the journal *Science* was adapted into GPS tracking technology for possum management in Te Urewera, seeding a regional pest-control industry.
- **Tetrodotoxin (TTX) in Kaimoana (2009–2012):** First documented evidence of TTX in Aotearoa sea slugs at human-lethal concentrations. Around 400 samples across 53 species were reported to a 19-agency steering committee, informing food-safety management.
- **Maramataka / Lunar clock research (2010–present):** Integrated wānanga, iwi fisher data, and Western science to produce peer-reviewed work on semilunar clocks, a documentary, and the Māori Stellarium—bridging mātauranga and science.
- **Ahuriri Estuary (2004–ongoing):** Kaitiakitanga-informed health assessment adopted into a 25-year local authority management strategy; NZIER-verified as a robustly evidenced environmental impact case.
- **Cyclone Gabrielle research mobilisation (2023):** Wānanga Paetukutuku convened 500+ participants across three regions and all tiers of government, amplifying Māori community voices in national disaster recovery.
- **International Indigenous Climate Change Research Summit (2023):** 250+ delegates, 56+ papers, four international keynotes, a formal communiqué, and a *MAI Journal* special issue—consolidating a global Indigenous climate research network.
- **Rotoitipaku restoration (2009–2012):** Dan Hikuroa developed a kaitiakitanga-based methodology for restoring the mauri of an industrial waste site, giving the local iwi a practical restoration pathway addressing ecological and spiritual dimensions.
- **Toitū he Kāinga (2022–2024):** Michelle Thompson-Fawcett's Pae Tawhiti programme applies Te Ao Māori frameworks to urban planning, architecture, and landscape ecology; 6,000+ articles catalogued and applied tools produced.
- **Rangatahi climate research (2023–2024):** NPM-supported climate and tikanga justice research secured a $649,992 grant; related tikanga-tort law scholarship reported as a potential legal game changer for Indigenous climate justice.

Domain 3: Health and Wellbeing

- **Elderly Māori care model (2003–2006):** Mere Kēpa's rural-elderly research produced rapid service delivery change and a new four-organisation hauora consortium—direct practice change from community-embedded research.
- **Whatukura bioengineered eye model (2009–2012):** Computer-based clinical education tool making specialist eye disease knowledge accessible to Māori whānau in a culturally appropriate way.
- **Māori child health inequities costing (2010–2012):** Paparangi Reid's costing framework quantified Māori–non-Māori child health inequities, providing policymakers with a financial framework for the cost of inaction.
- **Mauri Ora COVID-19 policy advice (2016–2021):** Foundation research used directly by Te Rōpū Whakakaupapa Urutā for COVID-19 policy advice generated an $870k Marsden award and a $10m MBIE Endeavour grant—the portfolio's strongest post-2014 research-to-policy chain.
- **Kaupapa Māori epidemiology (2003–2012):** Bridget Robson's methods adopted by the Ministry of Health as standard policy and practice—NZIER-verified through end-user interview, representing a system-wide improvement in Māori health data quality.
- **Research to Interrupt Racism and (In)equity (RIRI) (2022–present):** FIRST programme with four pathways targeting institutional racism across health, education, justice, and social services, producing policy briefs on youth justice and whānau trauma.

- **Kapa haka wellbeing evidence (2019–2021):** Te Matatini collaboration demonstrated kapa haka students outperform all other cohorts in NCEA (2014–2019 data) and estimated consumer wellbeing value at NZ$40–52 per group—a rare monetisable cultural outcome.
- **Aituā (2009–2012):** Ngahuia Te Awekotuku's study of tangi practice, whakapapa, and contemporary Māori death—cultural continuity scholarship in a domain historically absent from mainstream research.
- **Kaumātua Taonga Aroha (2009–2013):** Co-funded longitudinal cohort study led by Lorna Dyall that generated evidence on protective factors associated with strong cultural identity and whānau connection in Māori ageing.
- **CDH1 gene research (2022–2024):** Whānau-centred engagement model for hereditary gastric cancer, sitting at the intersection of genomics, data sovereignty, and Kaupapa Māori health practice.
- **Suicide historical mapping, 1940–2019 (2022–2024):** A Pae Tawhiti project that delivered the first systematic historical mapping of Aotearoa suicide rates using linked data—a long-run evidence base for contemporary Māori suicide prevention policy.

Domain 4: Economy and Innovation

- **Māori economy research (2005–2019):** NPM-supported research, alongside BERL studies, contributed to the evidence base characterising the Māori economy at ~$32 billion (8.9% of GDP), shaping Treasury thinking and policy attention.
- **Whare Uku affordable housing (2003–2015):** Kepa Morgan's Whare Uku process integrated mātauranga Māori with engineering science to produce warm, low-toxicity, affordable housing suitable for papakāinga—NZIER-verified with a working prototype.
- **Fish trap / Scampi pathway:** Mātauranga-informed fish trap designs showed potential for environmentally sustainable scampi harvesting and led to further MBIE investment and export-value framing—NZIER-verified.
- **Te Hiku Media / AI language technology (2019–2024):** NPM relationships contributed to a 92%-accuracy te reo speech-to-text model grounded in Māori data sovereignty. Peter-Lucas Jones was named on the 2024 TIME100 AI list.
- **Tōku Whānau (2023–present):** Moana Rarere's research supports a Māori-governed social media prototype with explicit protections preventing overseas scraping of te reo Māori data for LLM training.
- **Māori wellbeing economies (2019–2025):** Chellie Spiller's FIRST programme, synthesised in Aropū No. 9 (December 2025), established six policy actions and documented two embedded business case studies (North Drill; Stronghold Group), noting the Māori asset base grew from $69b to $126b from 2018 to 2023.
- **Taniwha economy research (2019–2024):** Articulated a quadruple-bottom-line model incorporating mauri of the whenua alongside social, cultural and environmental performance; reached media (*The Spinoff*) and academic venues.
- **Kowhiti-19 (2020):** Eleven rapid-response COVID-19 research projects totalling $248,105 delivered within six months—this operational agility became the direct precursor to the Mauri Ora COVID-19 policy chain.

Domain 5: Language, Culture and Mātauranga Māori

- ***Tūhoe Kaumātua* DVD (2006–2009):** This production captured elderly Tūhoe knowledge-holder teachings before permanent loss; an irreversibility-argument case, with outputs held by the Tūhoe community.
- **Pei Jones digitisation (2010–2012):** Over 30,000 pages of Pei Te Hurinui Jones's manuscripts digitised—critical te reo and mātauranga knowledge infrastructure.
- **Māori Stellarium (2014–2015):** Free public digital tool combining astronomical data with traditional Māori seasonal knowledge; used in schools, by fishers, and by communities reclaiming maramataka practices.
- **Māori Data Governance Model (2015–2022):** Tahu Kukutai and the Te Kāhui Raraunga network developed a governance model adopted across institutions. The 2022 GIDA communiqué on Indigenous data governance emerged from an NPM-connected workshop.
- **Āniwaniwa—Venice Biennale (2006–2007):** Brett Graham and Rachael Rakena's NPM-supported installation drew 21,000+ visitors and international press; the journal *Science* described NPM as "a home for Māori research".
- **Au e Ihu! 28th Māori Battalion history (2008–2012):** Ted Waaka and Huia Tomlins-Jahnke completed D Company veterans' socio-cultural, tribal, and political history—fulfilling a promise to veterans before the last witnesses passed.
- **Marae hazard mapping (2022–2024):** GIS analysis of 869 marae assessed flood, coastal erosion, and seismic exposure; integrated with iwi and hapū knowledge to support marae governance, local councils, and emergency management.
- **Ngā Tikanga Mate (2009–2012):** Nin Tomas mapped the tikanga–law interface on death and burial, contributing to scholarly and legal discourse on tikanga accommodation within the New Zealand legal system.
- **Wastewater and alcohol monitoring (2023–2024):** Pae Auaha / Pae Tawhiti contribution to wastewater epidemiology methodology with community health surveillance applications.

Domain 6: Institutional Capability and Research Infrastructure

- **Awanuiārangi—PBRF Capability Lift (2005–2010):** NPM infrastructure grants enabled Awanuiārangi's first PBRF participation, ranking 12th of 31 institutions and triggering follow-on Ministry of Education, TEC and Marsden contracts—generating a sustained capability trajectory for a previously excluded wānanga.
- **Te Pūtahitanga (2019–present):** Strategic framework for systemic change, encompassing the FIRST and SECOND programmes—NPM's shift from funding projects to reshaping the conditions under which Māori research is produced and valued.
- **Te Reo o te Whānau (2018–2022):** A cluster of studies on intergenerational te reo transmission, second-language parents of first-language children, semantic grammar pedagogy, and rangatahi digital te reo—whānau-level evidence for revitalisation strategy.
- **Te Ara Paerangi submission (2022):** NPM's Te Pūtaahitanga submission to MBIE's science system review, drawing on 20 years of evidence and influencing the architecture reflected in Kanapu and new MBIE investment streams.
- **Taramea biocultural resources (2021–2023):** Katharina Ruckstuhl and colleagues' *AlterNative*-published case study established a practical framework for protecting Indigenous biocultural resources, applicable across taonga species with cultural significance and commercial potential.


MATATIHI