

A photograph of construction workers in orange safety gear pouring concrete into a formwork. The concrete is being poured onto a grid of steel reinforcement bars (rebar). The scene is outdoors, and the workers are using long-handled tools to guide the concrete. The image is partially covered by a dark purple diagonal overlay on the left side, which contains the company logo and report title.

CONCO>E TŪHURA

ANNUAL REPORT 2024
TEC VERSION



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BACKGROUND / MŌ CONCOVE TŪHURA

The Construction & Infrastructure Centre of Vocational Excellence (ConCOVE Tūhura) was established in 2020 as part of the Government's Reform of Vocational Education (RoVE).

ConCOVE is hosted by the Manukau Institute of Technology (MIT), part of Te Pūkenga, the New Zealand Institute of Skills and Technology.

Together, we're using education, research, and innovation to help build a more productive, sustainable, and resilient national sector for both industry and employees.

Our mission / Te whakapuakanga

ConCOVE connects and aligns industry, learners, and vocational education to re-imagine clear, equitable, and supported career pathways within the construction and infrastructure sectors.

Ka tūhonohonotia e ConCOVE ngā rāngai ahumahi, ngā ākonga, me ngā pūkenga mahi ā rehe ki te whakatū mahi i runga i te huarahi tika, e ngākau tapatahi ana, e tautokotia ana e te rāngai waihanga.

Our vision / Te whakakitenga

We have inclusive, sustainable, and productive construction and infrastructure sectors with clear career pathways supported by a future-focussed vocational education system, honouring Te Tiriti O Waitangi.

Kua kotahi, kua toitū, kua angitū te rāngai waihanga, ki te whakatū mahi e hāngai ana ki ngā pūkenga mātauranga ō anamata, i raro katoa i te mana o Te Tiriti o Waitangi.

Our structure and roles

ConCOVE is a consortium supported by six integral partners:

MIT – Te Pūkenga

ConCOVE is a directorate of Te Pūkenga, trading as Manukau Institute of Technology Limited.

However, ConCOVE has its own Director and Board, and operates independently from MIT, within MIT policy guidelines.

Our Board

Our Board comprises ten members, based around New Zealand, with extensive experience from a range of industries within the construction and infrastructure sectors. Our Board is led by two co-chairs, one of whom must represent Māori.

Board members

Graham Burke, Co-Chair
Phil Hokianga, Co-Chair
Mackenzie Ashby, Board Member
Pamela Bell, Board Member
Professor Martin Carroll, Host Representative
David Fabish, Board Member
Amos Kamo, Board Member
Nick Clayton, Board Member (to Dec 2024)
Honor Columbus, Board Member (to Dec 2024)
Heather MacKay, Board Member (to Dec 2024)
Vai Punivai, Board Member (joined Dec 2024)

Advisory Groups

Three Advisory Groups advise on ConCOVE projects from the perspective of the three priority groups: Māori, Pacific peoples, and women.

Directors

Our Executive Director, Katherine Hall, is responsible for leading the organisation's strategic direction and operation.

Our Deputy Director, George Makapatama, oversees the broader programme of work.

Portfolio Management Office (PMO)

Our PMO team oversees all ConCOVE projects and works with external parties to initially assess and curate projects as they are presented to ConCOVE. The ConCOVE PMO also supports the development of ConCOVE projects.

The team is made up of five Portfolio Managers — Mani Saini, Nina Herriman, Eve Price, Anne-Marie Shepherd and Wayne Abel — and a Special Projects Manager, Kylie Taffard, who is responsible for projects that fall outside of the Portfolio Managers' remit.

Operation

ConCOVE's day-to-day operation is supported by our Executive Assistant, Melanie Kerr, and a Marketing and Communications Manager, Candice Hsu, who also oversees ConCOVE's membership application process.

OUR JOURNEY / TE ARA I WHĀIA



OUR JOURNEY CONTINUED/ TE ARA I WHĀIA (CONTINUED TE REO?)





A MESSAGE FROM OUR CO-CHAIRS / HE KUPU MAI I NGĀ HEAMANA

Tēnā koutou katoa,

On behalf of the Board, we are pleased to present the 2024 Annual Report for TEC for ConCOVE Tūhura.

A year of transformation and determination

2024 has been another challenging year for vocational education and the construction and infrastructure sector. Ongoing vocational education reform, the disestablishment of the Construction Sector Accord, and the slowdown in building activity and infrastructure development have all contributed to an uncertain landscape. These challenges are compounded by constrained funding across the sector, limiting capacity for innovation and growth.

While these shifts have created uncertainty, they have also underscored the importance of our work.

With a defined timeframe, we are committed to intensifying our efforts to deliver on our strategic goals, embed meaningful change, and ensure the sustainability of our work well beyond 2025.

Strategic achievement in 2024

Guided by our mission to enable thriving futures and challenge the status quo, ConCOVE Tūhura has achieved remarkable progress this year. Our efforts have been strategically aligned to advance vocational education and workforce development for the construction and infrastructure sectors.

Through Tui Tuia – our trilogy of projects aimed at empowering educators, and the launch of degree-level apprenticeships (DLA), we have driven forward new pathways for learners and positioned vocational education as a key enabler of workforce development. These initiatives have sparked important conversations and actionable insights, with a strong focus on benefiting Māori, Pacific peoples and women as our priority groups.

Our commitment to engagement was also evident in the impactful stakeholder events we hosted, bringing together industry leaders, providers, and associations to share ideas and best practice.

Additionally, our research has been a catalyst for change, influencing conversations across the sector and shaping future pathways. By presenting our findings at international platforms such as UNESCO-UNEVOC and AVETRA, we extended the global reach of our work, affirming Aotearoa New Zealand's leadership in vocational education innovation.

Acknowledgements

We extend our heartfelt gratitude to our Board for their unwavering commitment to our kaupapa.

We bid farewell to Nick Clayton, Honor Columbus, and Heather Mackay, whose contributions have been invaluable. As we transition to a slightly reduced Board, we are pleased to welcome Vai Punivai, who brings a wealth of experience and insight.

We also acknowledge the remarkable work of the ConCOVE team. Their dedication and adaptability has ensured that our programme of work has progressed at pace despite uncertainty in the vocational education sector.

Looking to the future

As we prepare for our final year of operation, our focus is firmly on amplifying outcomes and catalysing action. Our priority is to embed the insights and frameworks developed through our research into the sector, ensuring they continue to drive meaningful change.

We will work closely with industry partners and vocational education providers to implement actionable recommendations and to build capacity for sustained innovation.

While ConCOVE may cease to exist in its current structure, our commitment to shaping a thriving vocational education system remains unwavering.

Our legacy will be measured not just by what we achieved, but by the enduring impact of our work on the people, communities, and industries we have served.

Ngā mihi,

Graham Burke

Co-Chair (Industry)

Phil Hokianga

**No Rongowhakaata oku Iwi
Co-Chair (Māori)**



DIRECTOR STATEMENT / HE KUPU NĀ NGĀ KAIWHAKAHAERE

Tēnā koutou katoa,

Reflecting on 2024, we are immensely proud of what we have achieved over the past year.

We have grown our subscriber base by nearly 70%, held an 82-strong stakeholder event on research and future innovations, hosted six webinars that reached hundreds of people across Aotearoa New Zealand and internationally, and started 19 new research projects. It's been quite a year!

A key feature of many of our research projects this year has been the strong partnerships we have forged with industry. For instance, we partnered with Quarrying New Zealand to identify the critical workforce skills needed for a sustainable future. Similarly, a project focused on civil construction offered important recommendations to address persistent skills shortages, creating a compelling case for greater government investment.

Additionally, our team members featured prominently as speakers at conferences in Aotearoa New Zealand and overseas. These included one hosted by AVETRA, Australasia's only independent association for research in vocational education and training, plus the International Labour Organisation Quality Apprenticeship event in Turin, and our work with UNESCO-UNEVOC. These events allowed us to share our research findings with a wider audience and also provided invaluable opportunities to engage with key stakeholders from around the world.

A growing number of our stakeholders acknowledge the influence and importance of our role in promoting innovation and collaboration, leading to discussions or changes within their organisations. This impact is evident, with more than half reporting that ConCOVE projects have sparked discussions or changes within their organisations, and at least a third (over 34%) indicating that these projects have directly led to changes or prompted meaningful discussions within their workplace.

While we look back on 2024 with pride, we recognise that there is still much to be done in 2025. We are committed to building on our momentum and ensuring that our work continues to influence change across industries in partnership with vocational education providers.

Looking ahead

In 2025, our focus will shift towards turning our research into actionable outcomes. Our aim is to ensure that our findings have a tangible, lasting impact on vocational education and wider workforce development in the construction and infrastructure sectors.

During a team planning day in November, we consolidated more than 130 actionable insights from our research into 14 focused workstreams, each designed to drive impact. These workstreams are grounded in systems change. They identify the complex, interconnected elements of the vocational education system that must evolve in order to create long-lasting, meaningful change.

In 2025, we will further refine these workstreams to lay the foundation for future innovations in vocational education and workforce development.

Gratitude

We are incredibly grateful for the continued support of industry partners, workforce development councils, providers, and associations. We also want to thank our advisory boards for their ongoing contributions. Finally, heartfelt thanks to the dedicated ConCOVE team for their hard work and unwavering commitment.

As we approach our final year as ConCOVE in 2025, we take pride in knowing that the relationships and connections we have fostered will continue to endure and drive change in the years to come.

As we move forward together — Waiho i te toipoto, kaua i te toiroa: Let us keep close together, not wide apart.

Ngā mihi






A stylized, handwritten signature in black ink.

Katherine Hall
Executive Director

A stylized, handwritten signature in black ink.

George Makapatama
Deputy Director

CONCOVE STRATEGY 2023-2025 / RAUTAKI CONCOVE 2023-2025

 Purpose: To use education, research, and innovation to build a more productive, sustainable, and resilient national vocational education sector for both industry and employees				
 Vision: We have clear, equitable, and supported career pathways supported by a future-focussed vocational education system for all, honouring Te Tiriti O Waitangi to enable an inclusive, sustainable, and productive construction and infrastructure sectors.				
 Mission: ConCOVE uses education, research, and innovation to connect and align industry, learners, and vocational education to re-imagine clear, equitable, and supported career pathways within the construction and infrastructure sectors.				
Impact #1: More people are thriving in more ways		Impact #2: New ways of doing, being, and knowing		Impact #3: Leaders and managers are playing a bigger, better part
Impact #4: Influenced critical structural system settings				
 Priority Groups: Māori, Pacific Peoples, Women, Leaders and Managers				
Strategic Themes				
1. Entry		2. Career progression		3. Innovation and disruptive technologies
		4. Diversity, equity, and inclusion		5. Environmental sustainability
 Focus areas				
VET mechanisms: Vocational education training mechanisms for workers at all levels via providers, employers, iwi, and communities		Leaders and Managers as learners: Extension learning (and/or CPD) mechanisms for leaders and managers at all levels to benefit themselves and other learners in their business		Structural settings via collaborations and partnerships: Backbone role of a collaborative partnership enabling collective impact aligned to a shared vision, including structural system settings
Narratives and communications: Data, evidence, and stories that become feedback loops for people across the system		Beyond 2026: 2026 and beyond for ConCOVE as an ongoing catalyst of change		
Initiatives like: Reducing the time it takes to get qualified – a more effective model of support for Māori level 4 carpentry apprentices. Degree Level Apprenticeships Framework for Māori in high skill roles Environmental competency training Vocational education invention & experimentation		Initiatives like: Supporting technical experts to become work-based trainers Framework for Māori in high skill roles Temporary Traffic Management Credentials Framework NZ quarrying industry’s possible futures towards 2030 Leaders and managers as ‘learners’		Initiatives like: Skills standards project A Theory of Change for a bystander culture Civil and heavy engineering construction Environmental competency training+ BRANZ Zero-Carbon project Collaboration secretariat and research to inform policy
Initiatives like: Workforce Journey Indicators Data Dashboard Where is the front door? Offsite Manufacturing forecast From skilled industry practitioner to kaiako Supporting technical experts to become work-based trainers Civil construction and Heavy Engineering Construction ConCOVE narrative		Initiatives like: Foresight out to 2035 of system needs Entity design (operational model and structures)		
Value creation: Diversity of research to advance knowledge of VET → Disseminate to educate actors → Enable delivery by providers (and employers) → Monitor data for signs of change				



CONNECT / WHAKAWHANANGATANGA



CONNECT / WHAKAWHANAUNGATANGA

2024 highlights



Increased from 629 to
1,007 subscribers



443

subscribers have
attended ConCOVE
events in the past



54% of members are
industry



30% of members are
in vocational
education and
training



417 members in total



6 webinars



1 in-person event



Among 20 projects, more than a third

(>34%) of stakeholders reported that it led to changes or
discussions within their organisation.

Connecting stakeholders through our project outcomes

In 2024, ConCOVE organised and presented a growing number of events aimed at bridging our strategic vision with active stakeholder engagement.

In total, we presented 17 project outcomes at our online and in-person events, serving a wide range of regional and national stakeholders from industry, government agencies and vocational education providers.

The significant growth among our subscriber and member database generated by these events signals that there is a real need among the sector for evidence-based, innovative and future-focused strategies to enhance education outcomes.



Events hosted

He Ruku Hohonu / A more effective model of support for Māori level 4 carpentry apprentices

– reducing the time it takes to get qualified (25 March 2024)

- 139 registrations
- 69 attendees

Discover workforce journey indicators dashboard (29 May 2024)

- 170 registrations
- 138 attendees

The potential of micro-credentials in vocational education (17 September 2024)

- 255 registrations
- 183 attendees

Driving workforce success - solution for apprenticeships (23 October 2024)

- 170 registrations
- 138 attendees

The future of TVET in construction: digitalisation, greening and migration (19 Nov 2024)

- 126 registrations
- 63 attendees

Research to action: work-based trainer insights for apprenticeships (3 December 2024)

- 149 registrations
- 85 attendees

Tūhura: Research insights, future innovations – Waipuna, Auckland (4 July 2024)

- 82 attendees
- 11 projects presented

Project presentations

- Lessons from Germany
- Degree-level apprenticeship (DLA) comparative pilot
- Skills Standards
- Active bystanders – Kaupapa Māori research project
- Civil construction: A requirement for a robust and reliable training pipeline
- Supporting technical experts to become work-based trainers
- Supporting technical experts to become on-job kaiako/trainers
- Investigating training advisors in work-based learning in the construction and infrastructure sectors

Events attended in 2024

13-14 February German-NZ delegation with German-NZ Chamber of Commerce Munich, Germany

27-19 February International Labour Organization, Skills Fair on Quality Apprenticeships Turin, Italy

5-6 March Food and Fibre Research & Insights Forum Wellington, New Zealand

26 March Infrastructure Funding and Financing Conference Wellington, New Zealand

9-10 April WILNZ conference Wellington, New Zealand

10-12 July NCVER No Frills Conference Perth, Australia

17-19 July Quarry NZ Conference Rotorua, New Zealand

21 August AMOTAI Navigate Summit Auckland, New Zealand

28-29 August Building Nations Conference Auckland, New Zealand

17-18 September ITENZ Conference Auckland, New Zealand

3-4 October AVETRA Conference Sydney, Australia

7-8 October Waihangā Ara Rau Summit Wellington, New Zealand

14-15 October BILT Africa event Accra, Africa

10 December Collective Power to Transform Systems Online Workshop

12 December Workshop: Developing a New Water Training Centre, Te Rūnanga O Toa Rangitira / Whitiāreia Wāteke

A photograph of two women in a room with large windows. One woman is seated in a black motorized wheelchair, wearing a brown and white floral patterned dress. The other woman is seated behind her, also in a wheelchair, wearing a similar patterned dress and gesturing with her hands. The room has a patterned carpet and a potted plant in the background. The image is overlaid with a large, semi-transparent text 'ALIGN / WHAKAHĀNGAI' in white. The background is split into two diagonal sections: a dark purple one on the top left and a bright orange one on the bottom right.

ALIGN / WHAKAHĀNGAI

ALIGN / WHAKAHĀNGAI

At ConCOVE, we're interested in practical research projects that benefit learners, employers, and industry. Here are all our ConCOVE projects to date.

Approved projects, with further detail, can be found at www.concove.ac.nz

Active bystanders – Kaupapa Māori research project

To develop a Kaupapa Māori theory of change to inform effective bystander interventions for wāhine Māori. This project seeks to develop a Kaupapa Māori theory of change which will inform effective bystander interventions for wāhine Māori within construction and infrastructure sectors.

A theory of change for a bystander culture in the NZ construction and infrastructure sector

A project to facilitate a co-designed theory of change (TOC) to underpin the development of a programme of work that will be focused on bystander intervention in the construction and infrastructure sectors.

Degree-level apprenticeship (DLA) comparative pilot

A project to contribute to the mainstream adoption of degree-level apprenticeships within the tertiary education system by developing frameworks to enable wider uptake of a flexible and responsive delivery mechanism for degree-level apprenticeships aligned with industry needs.

Tui Tuia Trilogy:

Supporting technical experts to become work-based trainers

A project to identify key capabilities and good practices that support effective work-based training. It will lead to the development and trial of tools and resources that support work-based trainers to improve their practice.

Investigating training advisors in work-based learning in the construction and infrastructure sectors

Focused on construction and infrastructure, this project aims to enhance vocational education in Aotearoa New Zealand, by analysing systemic forces for workforce development alongside future trainer considerations.

Industry skilled professional to kaiako

A project to explore and define the common elements of institution-based VET Kaiako (IBVK) quality; identify the current requirements for IBVK, both initial and ongoing, and how these are being met; explore how effectively current development pathways support the development of IBVKs, given quality principles and stakeholder perspectives.

Workforce journey indicators data – Phase 1 and 2

A data project to understand how people navigate into, through and out of the construction and infrastructure workforce.

A more effective model of support for Māori level 4 carpentry apprentices - reducing the time it takes to get qualified

A project to examine the current support model for ākonga Māori who are completing a level 4 qualification in carpentry, to better understand how the model could be improved to be more effective.

Framework for Māori in high-skill roles

A project to identify the current industry trends in terms of what the industry urgently needs and particular skills, and to develop a framework for supporting more Māori into high-skill roles in the industry.

The New Zealand quarrying industry's possible futures toward 2030

A report to include a suite of recommendations and associated strategies to future-proof the NZ quarrying industry. These recommendations will be used to support vocational training development for the quarrying industry.

Temporary traffic management (TTM) credentials framework

A project to develop a comprehensive understanding of international and national best practices in TTM and other vocational training systems; identify effective strategies, structures, and components that can be adapted to the New Zealand context, focusing on priority groups such as Māori, Pacific peoples, and women; and to establish a solid knowledge base for the TTM Credentials Framework Governance Group, guiding the development of the future TTM Credentials Framework in relation to the priority groups.

Environmental competency training – civil focus

Phase 1 will include a landscape scan of the current and upcoming legislations for the government's environmental goals, to establish what knowledge and skills are required by various roles, in order to inform training. This phase serves as a scoping exercise for the business case.

Evaluating the strengths and weaknesses of policy settings and incentives that support apprentices: towards more cohesive and coherent policy settings that are more effective at transforming outcomes for the construction and infrastructure sectors – Phase 1

A project to evaluate a range of policy initiatives that impact apprentices within the construction and infrastructure sectors. These are: Mana in Mahi (administered by Work and Income New Zealand); Apprentice Boost Programme (administered by Work and Income New Zealand); Regional Apprenticeship Initiative (administered by Kānoa); Group Training Scheme (administered by Work and Income New Zealand).

Women's experiences working in construction and infrastructure

A project which proposes to quantify the extent and impact of discrimination and harassment for women working in construction and infrastructure to inform a VET solution to reduce and eliminate these behaviours over time. While the problem is well recognised anecdotally, there has been no attempt to measure and define it. It is the first data-driven project in Aotearoa New Zealand to quantify and describe the actual situation.

BRANZ zero-carbon project

A systems gap analysis to recommend changes to enable degree-level apprenticeships (DLA) as a delivery mechanism in Aotearoa New Zealand.

Offsite manufacturing (OSM) workforce forecast

A project to explore alignment with other entities (such as the Construction Sector Accord, WAR and HAR) that are also doing work in the OSM space; and further research into technology adoption in OSM in Aotearoa New Zealand, and what this will mean for the composition, size, and market share of the workforce.

Implementing change in a sector dominated by small to medium-sized enterprises

A project to understand what channels and methods, and the characteristics of the communications, are required to effectively implement change, and how we can embed these in our projects and into vocational education, particularly work-based learning.

Civil and heavy engineering construction: A requirement for a robust and reliable training pipeline

A report outlining the root causes of the issues with civil heavy machinery training, conceptual solutions analysis, and recommendations for how this issue can be addressed, including the roles and responsibilities of stakeholders to implement change.

Skill standards

A project to develop good practice user guides for awareness and support in the transition from unit standards to skill standards.

Neurodiversity – appreciating and supporting neurodiversity in VET

A research project which stems from the recognition of neurodiversity as an asset rather than a deficit, acknowledging the diverse ways individuals experience and interact with the world. With an estimated 10% of New Zealand's population being neurodiverse, there is untapped potential to address the challenges they face in education and employment, particularly within key industries experiencing skill shortages.

Where is the front door? An investigation into the workforce entry points within the construction and infrastructure sector

A project to scope and map the multiple entry points into the construction and infrastructure sectors, including interventions that support entry into the sector.

VET in schools: towards a model for Year 12 & 13 in New Zealand schools

A project looking at the current state of Vocational Education and Training (VET) in schools with the goal of producing a compelling business case for change. The outputs will be a systems gap analysis and a business case to advance a consistent and equitable model for VET in schools for Year 12 & 13 students in New Zealand.

Case Study: Cook Brothers Apprentice Academy

A case study which examines the Cook Brothers Construction Apprenticeship Academy through a series of interviews with current apprentices and Cook Brothers' staff, including carpenters, site managers, and senior executives. The case study also highlights the programme's key benefits and challenges and provides recommendations for the construction industry and vocational education system to design and improve apprenticeship models across Aotearoa New Zealand.

The place of micro-credentials in New Zealand

Micro-credentials and digital credentials are emerging as potential game changers in vocational education, especially in promoting lifelong learning, yet they remain relatively misunderstood both domestically and internationally. This issue affects a wide range of stakeholders, including learners seeking relevant and accessible professional development opportunities, employers striving to address skills shortages and foster workforce capabilities, educational institutions navigating the changing vocational education landscape, and government bodies responsible for policy development and regulation.

AI generated assessment

This project seeks to revolutionise assessment design, moderation, and delivery using artificial intelligence to create high-quality, engaging, and personalised assessments that better meet the diverse needs of learners and industries while maintaining rigorous standards.



Key insights from stakeholder surveys

ConCOVE is tracking well against TEC measures. Most of the findings against TEC impact measures have seen a noticeable improvement this year, especially in the following areas:

65%-85%
to
81-89%

Stakeholders are increasingly recognising ConCOVE's influence on sector-wise collaboration. This year, stakeholder satisfaction with ConCOVE's role in promoting innovation and collaboration rose from 65%-84% to 81%-89%.

Stakeholder satisfaction with ConCOVE's communication improved, with 75% finding the information depth and detail just about right or enough, up from 58% in 2023. The increase is evident across all organisation types, except for contribution businesses and their suppliers, which remain similar.

75%
up from
58%

This year saw an increase in reported collaborative activities between ConCOVE and construction businesses, their suppliers, infrastructure providers, and WDCs.

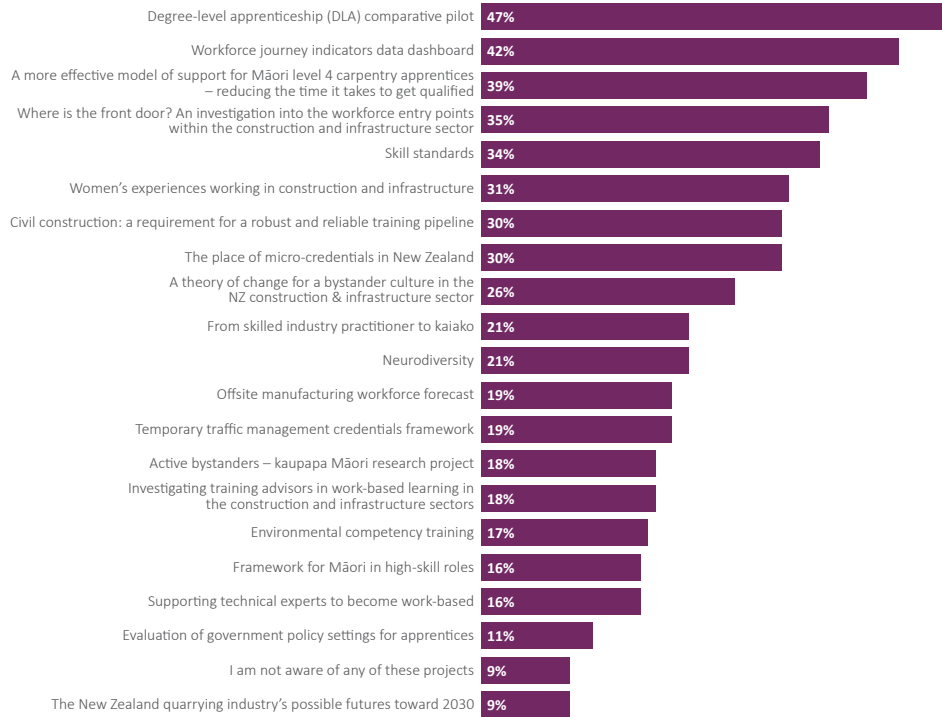
75%

Stakeholders are moving beyond awareness towards engagement with ConCOVE's work. Three-quarters of stakeholders indicated that they have seen or are well aware of the work ConCOVE is doing. This awareness is translating into tangible engagement.

Over half of the stakeholders who are aware of ConCOVE projects reported that ConCOVE projects have sparked discussions or changes within their organisations (57%).

57%

Stakeholder awareness of ConCOVE projects (2024 only, n=125)



Project Awareness feedback

91%

91% acknowledged awareness of at least one ConCOVE project. On average, stakeholders reported familiarity with five ConCOVE projects.

Three most recognisable projects:

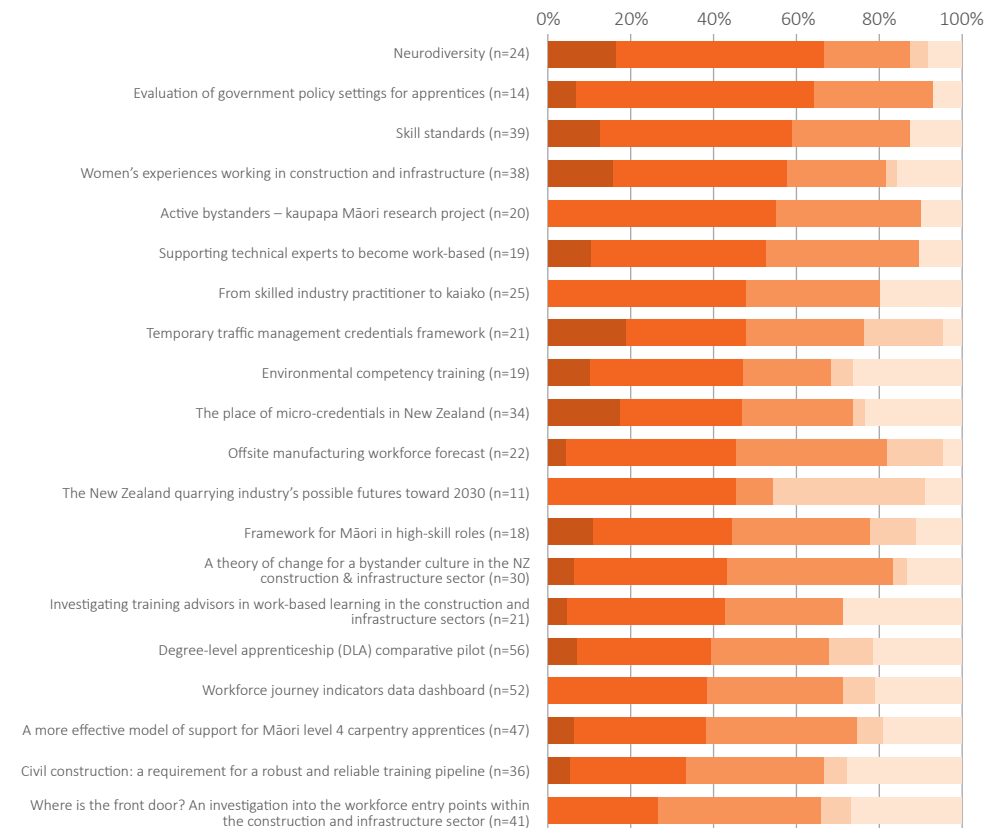
- Degree-level apprenticeship comparative pilot (47%)
- Workforce journey indicators data dashboard (42%)
- A more effective model of support for Māori Level 4 carpentry apprentices – reducing the time it takes to get qualified (39%)

57%

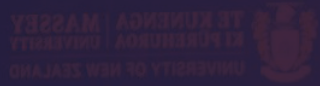
More than half of stakeholders reported that ConCOVE projects have sparked discussions or changes within their organisation.

>34%

Project influence is evident, as at least a third (>34%) of stakeholders said that our projects had led to changes or discussions within their organisation.



- The project has led to changes
- The project has prompted discussions
- Know about it but it has no relevance
- Know about it and had started thinking about its relevance
- Aware but don't know much



Mental Models holding the problem in place

1. Individualism

2. Us vs. Them

3. Fatalism

REIMAGINE / RANGAHAU



REIMAGINE / RANGAHAU

ConCOVE’s vision and mission statement support innovation and excellence in vocational education and training within the construction and infrastructure sectors. Innovation and excellence require an understanding of best practices through a variety of forms.

What is Systems Change?

Systems change is about transforming how different parts of the vocational education and construction sectors - such as Policies, Practices, Resource Flows, Relationships and Connections, Power Dynamics and Mental Models-work together to achieve long-lasting, meaningful impact. Instead of focusing on isolated issues or searching for a “magic bullet” or single solution, systems change addresses the root causes by shifting how things operate across an entire sector or community¹.

How to read the table:

The table highlights insights from our research, identifying the key areas—Policies, Practices, Resource Flows, Relationships and Connections, Power Dynamics and Mental Models—that need to shift in order to transform the system. These conditions are interconnected and must be advanced together. This approach marks a shift in the discipline, moving away from a focus on individual recommendations and towards a more holistic effort that drives all six conditions forward for sustainable and impactful change.

The table below outlines how ConCOVE’s various projects are designed to influence a paradigm shift for the vocational education and training (VET) system, to benefit the construction and infrastructure sectors. It illustrates how each project outcome is focused on six key conditions that influence systems change.

SYSTEMS CHANGE INFLUENCES

PROJECT	Policies	Practice	Resource flow	Relationship and connections	Power dynamics	Mental models
Offsite manufacturing (OSM) workforce forecast	The Government has committed to increase the use of OSM by at least 10% annually, promoting OSM adoption in the construction industry.	<ul style="list-style-type: none">• Highlights the growth of OSM and how it reimagines construction practices.• The adoption of prefabrication methods and the integration of new technologies into construction processes represent practice changes that can lead to greater efficiency and sustainability.• OSM offers practice solutions to productivity, safety, waste, quality, speed, and labour shortages.	<ul style="list-style-type: none">• Interactive dashboard serves as a resource flow that provides valuable information to the VET, construction, and infrastructure sectors.• Enhances decision-making by providing data-driven insights into the prefabrication workforce.• OSM is one of the most cost-effective building options.	<ul style="list-style-type: none">• Encourage participation from stakeholders (e.g. prefabrication businesses in New Zealand).• Create relationships and connections with industry professionals, fostering collaboration in data collection and analysis.• Allow for better integration to meet VET, construction and infrastructure needs when thinking and planning workforce development.• Highlight the labour-intensive nature of the prefabrication workforce.	<ul style="list-style-type: none">• The call for collaboration and feedback through the interactive dashboard promotes a relational change by involving industry players in shaping the future of the prefabrication workforce.	<ul style="list-style-type: none">• Challenge the traditional construction mindset by introducing OSM as a new paradigm.• The projected shift in the composition of the prefabrication workforce due to technology adoption indicates a transformation in mental models regarding construction practices.• Recommendations to embrace technology and embed digital skills in VET stress a transformative change in how the industry perceives and integrates technology.• Highlight the potential for significant behavioural and outcome changes by embracing technology and fostering digital literacy.

¹ Peter Senge et al, https://www.fsg.org/resource/water_of_systems_change/

PROJECT	Policies	Practice	Resource flow	Relationship and connections	Power dynamics	Mental models
Level 4 carpentry apprentices - reducing qualification time	Institutions understand and amend policies that may inhibit and promote success for Level 4 carpentry Māori ākonga (learners).	Institutions, workplaces, and iwi collaborate to support Māori success.	Māori learners have access to resources to support their learning	Stronger support networks for effective training and education, and stronger relationships between whānau and ākonga learning.	Ākonga and work-based trainers are able to navigate the learning journey and the requirements to complete a job.	Change beliefs from work-based trainers about how to “train” and recognise individual and cultural differences, and change mindsets regarding whānau workplace involvement.
Where is the Front Door? An investigation into the workforce entry point in the sector	Organisations have purposeful policies on the development of initiatives and collaborations to support those entering the construction and infrastructure sectors.	Organisations understand where their workforce is coming from, and develop a collaborative approach to provide initiatives to promote the entry points.	Initiatives are developed in a collaborative manner to ensure longevity and sustainability.	Develop inter-organisational connections for Māori, Pacific peoples, and women.	Develop networks and opportunities for people, specifically young people, to find meaningful work in the construction and infrastructure sectors.	Recognise schools as a significant source of workforce potential.
From skilled Industry practitioner to kaiako (teacher)	Review policies to ensure kaiako are provided with quality training and that qualifications are appropriate for the needs of kaiako.	Quality training for kaiako when they enter teaching positions within VET institutions to support them to become dual professionals (skilled practitioners as well as trainers).	Kaiako are provided the time to develop their teaching skills.	Kaiako can connect with peers to receive advice and guidance and can develop quality learning relationships with ākonga.	Kaiako contribute to curriculum development.	Kaiako see themselves as dual professionals.
Supporting technical experts to become work-based trainers	Organisational policies support apprentice learning.	Work-based trainers use effective teaching and learning to support apprentices and develop a work programme that suits their learning.	Work-based trainers are provided time for personal and professional development to effectively train apprentices, and have access to training opportunities to develop their teaching, learning, and technical skills.	<ul style="list-style-type: none"> Workers are aware of their role in training an apprentice. Quality learning relationships are developed between trainer and apprentices. Quality networks are developed to support apprentices’ skills. 	Work-based trainers balance the need for learning with completing work for the client, and the power dynamics between verifier/employer and trainer.	Change beliefs of work-based trainers about how to “train” while at the same time recognising individual and cultural differences, and seeing themselves on the job as both trainers and dual professionals.

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The New Zealand quarrying industry's possible futures	Leaders in the quarrying sector are actively reviewing and implementing regulations and organisations have a policy of developing leaders.	Quarrying sector takes a leadership role in developing staff to ensure quarries are taking advantage of opportunities.	Staff training is provided to develop technical and leadership skills.	Establishment of a cross sector collaborative programme to distribute and implement report findings.	Quarrying is recognised as part of the supply chain, efforts to develop the sector are recognised, and younger sector members are afforded opportunities to develop their skills.	Technology and diversity are embraced within the sector.
Degree-level apprenticeship (DLA) systems gap analysis and comparative pilot	Pilot projects are developed with key agencies to explore the best settings required for higher level apprenticeships to be used effectively in Aotearoa New Zealand.	<ul style="list-style-type: none"> Providers take a leadership role in promoting the delivery of DLA throughout regional campuses and target traditionally disadvantaged groups, and industries. Agencies publicly promote the benefits of 'learn as you earn' as a degree qualification. MBIE, TEC, Regional Skills Leadership Groups (RSLG) and others involved in the rebuild post-Cyclone Gabrielle, and other large infrastructure projects, discuss the benefits of DLA for learners to gain skills and qualifications to be prepared for climate-related challenges. 	To be examined: a fully funded DLA model, making it a financially viable delivery option; encouraging industry participation; and the potential for DLA industry funding.	Standard-setting agencies take the lead, alongside CoVEs, and in collaboration with industry, employers, and MBIE to promote DLA as a legitimate pathway to higher education and skills acquisition.	Large employers such as construction and infrastructure companies act as conduits to learners seeking to develop higher level skills and qualifications, to assist learners to be work-ready upon graduation through the DLA model.	Agencies publicly promote the benefits of 'learn as you earn' as a degree qualification, and that on-the-job training be considered on par with university qualifications.

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Women's experiences in construction and infrastructure	Assessing and defining the need to ensure any relevant policies are evidence informed.	A template for addressing other non-tangible skills to increase diversity and inclusion, which could be rolled out to make construction and infrastructure VET and workforces safe and welcoming for underrepresented or discriminated groups.			<ul style="list-style-type: none"> • Recommendations for improvements to construction and infrastructure VET are likely to be relevant across sectors and could be adopted by, and tailored to, any industry training programme. • Other industries can apply lessons learned to stimulate systemic changes that support women to work in these industries free from harm and discrimination. 	

PROJECT	Policies	Practice	Resource flow	Relationship and connections	Power dynamics	Mental models
Neurodiversity exploration	<ul style="list-style-type: none"> • A shift from compliance-based inclusion to deliberate inclusion, and aims to analyse current literature and practices, proposing training for education and work to better support neurodiverse individuals. • A potential re-evaluation and adjustment of policies to foster a more inclusive environment in education and the workforce. 	<ul style="list-style-type: none"> • Changes in assessment design, learning strategies, and material presentation to better support neurodiverse learners: Involves a shift in educational practices towards a strengths-based model that recognises and utilises the diverse strengths of neurodiverse individuals. • Propose practices that promote understanding and support for neurodiverse workers: Includes strategies for creating inclusive work environments and recognising and utilising the unique strengths that neurodiverse individuals bring to the workplace. 	<ul style="list-style-type: none"> • Acknowledges the significant economic cost of unidentified and unsupported dyslexia alone, estimated at \$800m a year in New Zealand². • Makes a case for allocating financial resources to support the proposed changes in education and work environments to better accommodate neurodiverse individuals. • Involves substantial research and analysis of current literature and practices, domestically and internationally. • Requires a significant commitment of human resources, including researchers, educators, and professionals with expertise in neurodiversity, education, and workforce development. • Engaging with Māori, Pacific peoples, and women requires community resources such as cultural experts, community leaders, and support networks. Leveraging existing community resources is crucial for understanding and addressing the unique challenges faced by different groups within the neurodiverse population. 	<ul style="list-style-type: none"> • Acknowledges the importance of diverse perspectives. • Engages various stakeholders- educators, employers, neurodiverse individuals, and community leaders: strong relationships are essential for the successful implementation of proposed changes and the creation of a more inclusive environment. • Involves understanding stakeholder needs, collaborating with community leaders, and incorporating cultural and gender perspectives. 	<ul style="list-style-type: none"> • Potential to challenge power dynamics by promoting a more inclusive and supportive environment: aims to break down the ‘us’ vs ‘them’ mentality, creating a stronger, collaborative dynamic. • Challenges ‘us’ vs ‘them’ mentality by advocating for a shift from compliance-based inclusion to deliberate inclusion: involves changing power dynamics within educational and workplace settings, promoting a culture where neurodiversity is seen as a collective consideration and opportunity rather than a burden on certain individuals. • Proposing changes and training in education and work aims to empower neurodiverse individuals to be more self-aware and vocal about their needs. This can lead to a shift in power dynamics, as individuals gain confidence to advocate for themselves in educational and workplace settings. 	<ul style="list-style-type: none"> • Transform mental models by promoting a strengths-based model that focuses on the abilities and strengths of neurodiverse individuals, challenging existing stigmas and stereotypes, promoting a more positive and inclusive understanding of neurodiversity with a better understanding of different ways of thinking and learning. • Researching and promoting different representations of neurodiversity, especially cultural and gender differences, contributes to changing mental models about how neurodiversity manifests, leading to increased understanding and acceptance of diverse neurodiverse experiences.
				<p>► Resource flow continued</p>		
				<ul style="list-style-type: none"> • To facilitate the shift from compliance-based inclusion to deliberate inclusion may require advocacy resources to promote awareness and understanding of neurodiversity. This could involve campaigns, workshops, and initiatives aimed at changing societal perceptions and fostering a more inclusive mindset. 		

² Stuart Martin et al, <https://concove.ac.nz/discovery-hub/appreciating-and-supporting-neurodiversity/>

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Skill Standards toolkit	<ul style="list-style-type: none"> Addresses significant changes in policies related to vocational learning and assessment, particularly the shift from unit standards to skill standards in qualifications e.g. the establishment of Workforce Development Councils (WDC) as new standard-setting bodies (SSBs) is a key policy change. Output is a toolkit that aims to guide SSBs and tertiary education providers in navigating the new policy landscape: involves developing best practices and recommendations to ensure quality and consistency of qualification development and implementation. 	<ul style="list-style-type: none"> Draws on adjacent knowledge and research to understand and propose best practices in the development and implementation of skill standards-based qualifications: aims to learn from global practices and adapt them to the NZ context. Designed to be sector-specific, addressing the unique needs and challenges of the construction and infrastructure sectors: aims to provide guidance on designing and implementing skill standards that meet the needs of learners and the workforce. 	<ul style="list-style-type: none"> Acknowledges the lack of guidance specific to NZ's move to skill standards, recognises the potential vacuum for both developing and implementing skill standards and aims to fill this gap. Leverages existing work with Waihangā Ara Rau (WAR), providing a starting point for the toolkit. 	<ul style="list-style-type: none"> Recognises and emphasises the importance of industry, SSBs, and education providers working together to achieve clear, equitable, and supported career pathways. Intended for both SSBs and tertiary education providers: aims to enhance the relationship between these entities by providing guidance that aligns with industry needs. 	<ul style="list-style-type: none"> Acknowledges the shift in power dynamics with the establishment of WDCs as nationalised SSBs. Recognises the potential complexity in the relationship between WDCs and VET providers, emphasising the need for more comprehensive considerations in the quality assurance process. Investigating and evaluating provider capability becomes crucial in understanding the enablers and barriers that exist within different organisations. Recognising diverse starting points and experiences helps identify areas of collaboration and challenge. 	<ul style="list-style-type: none"> Recognise mindset challenges associated with the move to skill standards-based qualifications. Draw on research from adjacent knowledge areas, highlighting the need for a collaborative and employer-inclusive approach. Promote a collaborative approach in the design and implementation of skill standards, encouraging stakeholders to view skill standards not just as technical specifications but as key drivers in the unifying goals of the Reform of Vocational Education.
Kaupapa Māori bystander	<p>Workplaces should have policies on how to report sexual harassment and how it should be dealt with. This project addresses:</p> <ul style="list-style-type: none"> how to prevent and stop these behaviours in the first place using te ao Māori approach. the actions bystanders can take. 	Influence actions and practices within workplace cultures in construction.	More resourcing and capability building is needed to implement better response to sexual harassment.	Through industry partnerships, create the changes necessary to improve safety in the workplace for wāhine Māori.	Provide information that bystanders can take when they witness sexual harassment in the workplace.	Shift outdated, unhelpful, and untrue mental models around sexual harassment, through recommendations for effective policies in this space, grounded in kaupapa Māori.

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Combined environmental competency framework	<p>Provide policy recommendations that align with several clusters of policy outcomes the government seeks:</p> <ol style="list-style-type: none"> 1. Climate change 2. Biodiversity- Te mana o te taiao 3. Water- Te mana o te wai 4. Natural and built environments- Te oranga o te taiao 5. Waste minimisation 6. Infrastructure 	Develop an overall long-term coordinated strategy that needs to be accepted and adopted by the wider industry in regard to environmental practice.	Encourage a collaborative mindset: many agencies, industry associations, training providers are consuming considerable resource in their attempt to present solutions. A synergised effort will make more effective use of limited resources.	A consortium of industry associations is better placed to 'own' the delivery of environmental competency training, in collaboration with the WDC building a formal education product.	Calls for industry associations, who the project argues are nimbler and more responsive, to take ownership of the first phase of training delivery.	<ul style="list-style-type: none"> • Change the prevailing mental model of a 'too many cooks' approach with numerous individual agencies and providers each taking shots at solving a problem that needs a concerted effort from multiple stakeholders. • Change NZ's approach to environmental competency training which is influenced by various factors, including government policies, educational institutions and other environmental organisations, but may not always take into consideration indigenous perspectives, and other community initiatives.
Case study: Cook Brothers	Ensure company policies are in place that prioritise the wellbeing and holistic learning for apprentices.	<ul style="list-style-type: none"> • Develop a structured learning approach to support the apprenticeship programme. • Implement a comprehensive and transparent training programme that combines on-the-job learning with formal classroom instruction. This should cover both technical and soft skills relevant to the industry and be developed in collaboration with the managing education provider, the apprentices' assessor and Apprenticeship Development Coach (ADC), site managers and other mentors. 	Invest in the success of the apprenticeship programme by employing an ADC who can maximise the effectiveness of the apprenticeship programme.	Cultivate a supportive company culture with a focus on companywide learning and development. A focus on creating a positive team environment that is underpinned by learning and development is instrumental in driving the success of both an apprenticeship programme and the organisation as a whole.	Ensure that people across the organisation have a role in the development of apprentices.	Create cross-industry opportunities to develop apprentices and create collaboration opportunities, so apprentices have broad knowledge of construction.

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Vocational education in schools towards a model for Year 12 & 13 in New Zealand schools	<p>Policy needs strengthening in the following areas:</p> <ul style="list-style-type: none"> • More closely integrated pathways open to all students. • Flexible pathways that enable ākonga to develop their skills and understanding of the world of work, without being labelled as an ‘academic’ or ‘vocational’ student. • Make explicit links between traditional academic NCEA subjects and vocational employment pathways for students. • Flexible funding model that recognises and accommodates variability of school size and geographic location. • Fund and encourage people with industry and workforce experience into the teaching workforce. • Train and expose academic teachers to a wider range of career options. 	<ul style="list-style-type: none"> • Create a support programme for the transition period between school and the first few years of work. • Train kaiako to build students’ career self-efficacy, by making explicit links in how the learning in their academic subjects can be directly applied to the workforce. • Increase support (time, funding, resources) for students to travel to a workplace, gateway provider or a different school for them to explore VET pathways. • Reduce the bureaucracy required for industry to partner with schools. 	<ul style="list-style-type: none"> • Create clear, user-friendly guidelines on VET pathways within the education system for ākonga, kura, whānau and industry. • Introduce online and weekend courses so that ākonga do not miss out on key lessons during the school day. 	<ul style="list-style-type: none"> • Involve industry in the creation of VET qualifications and course content. • Support Industry training initiatives that increase their capability to take on young people, e.g. Coach the Crew. • Encourage regional coordination of programme delivery, transition processes, and ongoing relationship management between industry, community and schools. 	<ul style="list-style-type: none"> • An oversight and convening structure responsible for VET policy at a systemic level and practice at a regional level. • Align VET qualifications and achievement standards to an equivalent level of status as NCEA. • Redesign traditional vocational unit standards to achievement standards using achieved/merit/excellence ratings. • Clearly define the career decision-making process and how it is signposted within the curriculum. Include how it is communicated between schools, ākonga and whānau. • Develop additional measures for success for schools and students that more equitably recognise the multiple pathways and routes to meaningful careers. 	<ul style="list-style-type: none"> • Create / re-instate aspirational career pathways in VET (e.g. Prime Minister’s award). • Promote the value of vocational training and working in industry, including skills, rewards and personal fulfilment. • Identify and promote role model employers and individuals who are successful in industry.

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Pathways to successful SMEs	<p>This project may inform policies and practices around entrepreneurship education and support systems across various vocational sectors.</p> <p>Insights gained about the transition from technical expert to business owner could inform professional development programmes in other fields.</p>			<p>The project could foster stronger relationships between education providers, industry bodies, and SMEs, creating a more collaborative ecosystem for skills development and business support.</p> <p>Successful implementation could provide a blueprint for targeted SME support in other sectors, potentially leading to increased economic resilience and growth across multiple industries. It may lead to improved mentorship and knowledge-sharing networks within and across industries.</p>		<ul style="list-style-type: none"> • Shift mental models around the importance of business management skills for technical professionals, potentially influencing curriculum design in other vocational areas. • Challenge traditional notions of career progression in trades and technical fields, emphasising entrepreneurship as a viable pathway. The project's approach to upskilling and reskilling could inform lifelong learning initiatives in other sectors, addressing skills gaps and career transitions more effectively.
AI-generated assessment	<p>Collaborate with NZQA and WDCs to align AI-generated assessments with VET sector regulations and influence future policy decisions to support innovative assessment practices.</p>	<p>Transform assessment design, moderation, and delivery practices using AI technologies to create high-quality, engaging, and personalised assessments for diverse learners.</p>	<p>Optimise resource allocation by automating time-consuming tasks, allowing educators to focus on high-value activities like teaching and learner support, leading to a more efficient and sustainable VET sector.</p>	<p>Foster collaboration among industry leaders, learners, VET providers, policymakers, and the community to co-create innovative assessment solutions, ensuring long-term success and sustainability.</p>	<p>Promote equity and inclusion by providing personalised and accessible assessments that cater to diverse learner needs, challenge existing power structures, and contribute to a fairer and more equitable VET sector.</p>	<p>Drive a paradigm shift in assessment practices, demonstrating the potential of AI technologies to revolutionise assessment, promoting a culture of innovation and continuous improvement, and setting the groundwork for future developments that prioritise the success of Māori, Pacific peoples, and women learners.</p> <p>Foster a culture of critical oversight and ethical use of AI in education, as emphasised in current AI safety literature (Hendrycks, 2024).</p>

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The place of micro-credentials	<ul style="list-style-type: none"> • The project assesses current micro-credential and digital credential policies both in New Zealand and internationally. • This evaluation aims to identify areas where policies can be adapted and improved. • Particularly relevant given NZ's pioneering role in vocational education and the potential clash between micro-credentials and Skills Standards. 	<ul style="list-style-type: none"> • Evaluate how micro-credentials are currently being used by employers and educational institutions. • Identify gaps in current practices and opportunities to enhance their usage. • Put special focus on understanding why there are so few construction and infrastructure micro-credentials registered despite the framework existing since 2018. 	<ul style="list-style-type: none"> • Examine funding models for micro-credentials. • Analyse employer contributions and their impact on employment outcomes. • Aim to assess the sustainability of different micro-credential funding approaches. 	<ul style="list-style-type: none"> • Analyse communication and collaboration patterns between government, industry and workers. • Focus on ensuring equitable access to micro-credentials. • Aim to improve alignment between different stakeholders' needs. • Include specific engagement with Māori and Pacific peoples regarding accessibility. 	<ul style="list-style-type: none"> • Investigate how power and influence are distributed among stakeholders. • Aim to ensure rules and developments around micro-credentials reflect all parties' interests. • Particularly relevant given the involvement of multiple sectors (construction, infrastructure, education) and priority groups. 	<ul style="list-style-type: none"> • Explore current perceptions and narratives around micro-credentials. • Examine views held by workers, employers and government entities. • Aim to identify areas where reframing is needed to promote better understanding and acceptance. • Address potential misconceptions about micro-credentials' value and purpose.
An evaluation of apprenticeship policy settings: a case for systems change	<p>Project looks at apprenticeship support initiatives including: Apprenticeship Boost, Regional Apprenticeships Initiative, Mana in Mahi and Māori Trades and Training Fund, and evaluate how these policies work and interact with each other within the current system.</p>	<p>The work identifies a number of practices that need addressing, including overlapping initiatives that prioritise participation over completion.</p>	<ul style="list-style-type: none"> • Enduring and persistence financial barriers for apprentices. • Financial incentives may have unintended consequences in some cases, enabling behaviour that undermines quality training outcomes. • Difficulties accessing and navigating apprenticeship resources and information. 	<p>There is a need for more consistent and coordinated pastoral care to address barriers to apprenticeship completion.</p>	<p>Insufficient support and accountabilities for employers to ensure quality apprenticeship training, with power dynamics continuing to favour employers.</p>	<p>The opportunity to challenge prevailing mental models and enhance and communicate strategic direction and better alignment of support initiatives to ensure they align with desired outcomes.</p>

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Workforce journey indicators	<ul style="list-style-type: none"> Provides a rich evidence base to inform policy development and assessment. Allows for relatively easy comparison of sub-sector with indicators developed by Waihangā Ara Rau. 	Understanding current practices using data allows the understanding of themes and patterns to inform changes to practices. The indicators data dashboard is built from enduring data sources which allows them to be repeated to measure effectiveness of programmes to create change in the sectors.	Allows us to better understand our workforce at a granular level, enabling us to identify where investment could provide the most benefit.	<ul style="list-style-type: none"> Data and trends allow us to address specific relationships that can unlock and enable a change in other aspects, such as resources or practices. Ensuring those in industry, government and the vocational education sectors are aware of the indicators is a key focus. A common understanding of the evidence and data between these sectors is an important part of informing change and providing opportunities for collaboration. 	By providing granular demographic data, the indicators highlight how power dynamics affect different communities and groups within the workforce. This understanding allows stakeholders to address systemic inequities, dispel myths, and focus efforts on areas of real need, creating a more inclusive and equitable workforce.	The indicators challenge existing assumptions and narratives within the sectors. By providing concrete evidence, the project supports a shift in how stakeholders view workforce challenges and opportunities. It encourages a systems-thinking approach, where interconnected aspects of the workforce ecosystem—such as practices, resources, and relationships—are seen as levers for change.

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On-site upstanders: A theory of change for a bystander culture	<p>Sector agreement about these issues, including the creation of minimum standards, and the development of a shared language for talking about sexual harassment and enabling people to challenge these behaviours in a safe way.</p>	<p>The theory of change recommends the establishment of mechanisms to allow the sector to connect and learn together, as well as agreed sector-wide reporting mechanisms and ways for people to report incidents.</p>	<p>The theory of change recommends that procurement processes reinforce the agreed sector mechanisms and standards.</p>	<p>Collaboration within the sector is key, particularly through creating mechanisms for the sectors to come together and share learnings.</p>	<p>By understanding why men might or might not intervene in harassment, the recommendations tackle underlying power dynamics and encourages shared accountability.</p>	<ul style="list-style-type: none"> • The project confronts the pervasive belief that women do not 'fit' in the construction and infrastructure sectors, addressing stereotypes about gender roles and capabilities. The recommendations aim to shift entrenched mindsets by promoting a bystander culture where everyone feels empowered to challenge inappropriate behaviours. • By creating a shared language and enabling safe conversations, the project disrupts traditional attitudes that normalise or overlook harassment. Through awareness and education, the initiative challenges the stigma around reporting and speaking out, fostering a workplace culture of mutual respect and accountability.

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Funding of workplace training and work-integrated learning for the construction and infrastructure industries	<p>The project directly engages with tertiary education funding policy to improve economic and social returns for Aotearoa New Zealand. By focusing on workplace training and work-integrated learning in the construction and infrastructure industries, it offers practical insights to shape future funding models. This work aligns with government priorities and complements ongoing initiatives, such as the University Advisory Group and ConCoVE projects, ensuring that the resulting policy recommendations are both evidence-based and actionable.</p>	<p>By exploring funding mechanisms that better reflect employer contributions and responsibilities, the project aims to enhance employer engagement in education and training. It proposes funding models that incentivise collaboration. This includes addressing free-rider issues, ensuring that the costs and benefits of training are distributed more equitably across stakeholders.</p>	<p>The project emphasises the critical role of funding and resources in shaping the success of workplace training. It examines the allocation of resources to address disparities in the treatment of vocational versus advanced education and training. By recognising employer contributions and benefits, the project supports more sustainable funding models that enhance investment in workplace education, especially in industries with skills shortages.</p>	<ul style="list-style-type: none"> • Strengthening partnerships between government bodies, employers and tertiary education organisations (TEOs) is central to the project. It fosters closer collaboration between SMEs and universities, encouraging the exchange of research-led insights and practical knowledge. Additionally, by addressing hierarchical challenges within the tertiary education system, the project seeks to create more inclusive and interconnected pathways for vocational and professional learning, benefiting all stakeholders. • The interaction between employers and TEOs may also improve business access to research-led insights and TEOs' access to current industry practice. 	<p>The project challenges traditional hierarchies in the tertiary education and training system by advocating for a more equitable treatment of vocational education. It also addresses perceptions about the desirability of vocational pathways, particularly among under-represented groups such as Māori, Pacific peoples and women. By elevating the role of employers in training and promoting the integration of work-integrated learning with professional registration requirements, the project shifts power dynamics to reflect the importance of workplace contributions.</p>	<p>Address deeply ingrained perceptions about the value of vocational education and work-integrated learning. By demonstrating the economic and social benefits of these pathways, it challenges societal biases that prioritise academic education over vocational training.</p> <p>Identify funding options that address inequities in how the system supports vocational and advanced education and training. It aims to dismantle structural barriers that disproportionately affect priority groups, including Māori, Pacific peoples, women, disabled people, and migrants.</p> <p>It encourages a mindset shift among employers and TEOs toward recognising their shared responsibilities and benefits in workplace education.</p>

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Guidelines: Implementing change in SMEs in the New Zealand construction VET sector	The project recommends policy and regulatory environments that support SME growth and engagement with vocational education. By working with policymakers and industry bodies, it seeks to ensure that SME-specific challenges were considered in decision-making processes. This change requires sustained collaboration to influence meaningful policy shifts.	The guidelines emphasise practical strategies, such as tailoring resources and communication to SME life stages and sizes and fostering partnerships with industry leaders and tier-1 firms to spread best practices.	The project highlights the importance of targeted resources for SMEs, particularly in under-represented groups, including Māori, Pacific peoples, and migrant-owned businesses. These efforts recognise the need to redirect resources more inclusively.	The guidelines recommend fostering collaboration with trusted community leaders, associations, and government partners. The approach of engaging multiple stakeholders—including large firms to mentor SMEs—acknowledges the importance of relationships in driving sector-wide improvements.	The guidelines provide recommendations for addressing power imbalances through inclusion of SME voices. This participatory approach attempts to rebalance traditional power dynamics.	<ul style="list-style-type: none"> • The guidelines aim to shift perceptions of SMEs from passive recipients to active contributors in vocational education. • Success stories and real-world examples aim to challenge stereotypes, fostering a mindset that values SMEs as innovators.
Framework for Māori in high-skill roles	Provides recommendations about what policy changes are needed by industry, education and government to support increased participation by Māori in leadership roles.	Discusses a range of changes in practice that might support more Māori into leadership, but will have a particular focus on the educational sector.	Identifies what financial and other support would assist Māori into leadership roles, and what other changes to investment might be beneficial.	Discusses the importance of whānau to the workforce and how leadership opportunities might be provided in this context.	Provides recommendations about how policies and practices can be adapted to mitigate the impact of existing power structures.	Provides insight into how discrimination and bias, particularly the effects of colonisation and racism impact on the workforce, and provide recommendations for how these might be recognised and addressed.
Temporary traffic management credentials framework	<p>Waka Kotahi's development of a new model for temporary traffic management (TTM) training was the impetus for this work.</p> <p>Agreements with providers about TTM training and assessment will flow from the recommendations in the report.</p>	<ul style="list-style-type: none"> • The report recommendations will be built into training and assessment practice. • The Working Group will explore if an existing unit standard could be used to better equip trainers with skills to support learners. 	<ul style="list-style-type: none"> • The crucial change that instigated the project will require changes in resourcing. • The analysis and recommendations in the report will assist in ensuring that those resources are directed where they can be most effective. 			

PROJECT	Policies	Practice	Resource flow	Relationship and connections	Power dynamics	Mental models
Civil construction: A requirement for a robust and reliable training pipeline	The current vocational education system and qualification delivery are unable to meet the workforce needs of the civil infrastructure industry: a coherent national strategy is needed to realign training provision with demand.	The current practice is not providing the industry with the workforce it needs: an integrated training pathway is needed that provides opportunities for initial exposure, work-readiness training, entry level training and skills development.	<p>The significant public benefit justifies public funding, either through a transfer from taxation, or an industry-wide levy, and industry involvement in directing these funds towards effective uses is vital.</p> <p>Educational performance should be assessed based on post-study outcomes and employability, to align education outcomes with industry requirements.</p>	Effective and ongoing communication and collaboration between industry stakeholders, training institutions, and policymakers is crucial to address the industry's needs, especially considering the changing expectations of the workforce regarding working hours and work-life balance.	Recommends that industry play a greater role in decision-making regarding civil construction training.	
Development of an engineering degree apprenticeship pathway in construction engineering	This project contributes to policy-level change through research that informs how degree apprenticeships can better serve under-represented groups—particularly Māori, Pacific peoples and women. By identifying barriers and opportunities, it provides a foundation for educational institutions, industry, and policymakers to design more effective work-integrated learning pathways. Otago Polytechnic will use these insights to shape the next engineering degree level apprenticeship, ensuring greater inclusivity in engineering education.	The project influences education and industry training practices by focusing on evidence-based programme design. Rather than implementing a degree apprenticeship immediately, this initiative ensures that the next iteration is built on research-driven insights about how to support Māori, Pacific peoples, and women in engineering. The shift toward structured, work-integrated degree pathways provides a model that could be adopted more widely across vocational	This initiative redirects funding towards research and evidence-based programme development. ConCOVE's investment in the research phase ensures that future apprenticeships are designed with clear, data-driven strategies for improving participation and retention rates among under-represented groups. Once the research is complete, Otago Polytechnic will use it to implement the next degree apprenticeship, leveraging institutional and industry resources for execution.	The project fosters stronger connections between industry, academia, and Māori and Pacific communities. By engaging with employers, students, and industry representatives, the research phase ensures that future degree apprenticeships align with real-world needs. This collaborative approach also strengthens ties between ConCOVE, Otago Polytechnic, and key stakeholders, creating a foundation for ongoing partnerships that support workforce development.	This research-driven approach empowers Māori, Pacific and women learners by ensuring that degree apprenticeships are designed to remove existing barriers to participation. Instead of imposing a pre-defined model, the project gathers insights from those affected by the current system, giving them a direct voice in shaping the next engineering degree level apprenticeship. By embedding industry and community feedback into programme design, the project shifts power toward learners and employers, rather than institutions alone.	By prioritising research before implementation, this initiative challenges assumptions about how engineering education should be structured. It moves away from the idea that simply offering a degree apprenticeship will increase diversity and instead acknowledges the need for targeted support and systemic change. The research phase helps to reframe engineering apprenticeships as adaptable, inclusive, and industry-aligned, rather than rigid academic pathways that fail to accommodate diverse learners.

PROJECT	Policies	Practice	Resource flow	Relationship and connections	Power dynamics	Mental models
Investigating training advisors in work-based learning (WBL) in the construction and infrastructure sector	WBL providers should undertake regular comprehensive reviews of their internal policies with a view to ensuring that training advisors are only required to carry out activities that directly relate to their navigating function, and that they are adequately supported by WBL providers to do so.	WBL providers should undertake regular comprehensive assessments of the current practices of their training advisors with a view to identifying those practices that best enable training advisors to support apprentices and employers to navigate the training journey. Those practices should then be codified in policy.	<p>WBL providers should work to remove barriers to the flow of apprentices within the construction and infrastructure apprenticeship system, including by supporting apprentices to change WBL provider and/or employer and/or vocation where appropriate.</p> <p>WBL providers should undertake comprehensive reviews of the information that they provide, via training advisors, to apprentices' employers regarding their progress. This is to ensure that employers are consistently provided the information necessary to support apprentices to efficiently progress through their apprenticeships.</p>	<p>WBL providers should ensure that training advisors are provided adequate support to develop and maintain strong, trusting relationships with apprentices and employers, including providing adequate time to develop and maintain these relationships.</p> <p>WBL providers should build mutually supportive relationships with other WBL providers, particularly with those providing training in other trades, to facilitate the transfer of apprentices between WBL providers and trades.</p>	<p>WBL providers should ensure that training advisors consistently reinforce apprentices' agency in the apprenticeship programme. This should include communicating the extent and possible effects of that agency and how it can be exercised.</p> <p>WBL providers should ensure that they enable training advisors to exercise agency in the apprenticeship programme. In particular, training advisors should be supported to determine their appropriate case load at a given time, accounting for the highly variable time required to support different apprentices at different stages of apprenticeships.</p>	WBL providers should consider adopting the title 'learning navigator' for their training advisor roles as part of supporting transformative change within the construction and infrastructure apprenticeship system. WBL providers should begin collective discussions with a view to agreeing processes that enable training advisors to facilitate the transfer of apprentices between trades.



Marcia Hintz

CASE STUDY 1: “A GO-TO LIBRARY WITHOUT DISTRACTIONS”

As Education Manager at New Zealand Certified Builders (NZCB), Marcia Hintz leverages ConCOVE’s research for programme development and training initiatives for over 3,000 members. Her involvement began with her personal interest in ConCOVE’s resources, which she later deepened through her participation in the Women’s Advisory Group.

Marcia highlights ConCOVE’s role as a go-to source for New Zealand-specific, current, and relevant research. She says its approachable structure, accessible experts, and reliable resources is vital for her work, noting that the research directly informs her programme design and lends credibility to her projects. Its work acts as a “go-to library without distractions,” enabling her to quickly pull insights to inform course development and ensure the work aligns with current New Zealand industry practices.

She finds the research readily accessible, chunked into practical insights rather than overwhelming volumes, making it easy to apply immediately.

The ability to quickly consult ConCOVE reports allows her to bypass outdated international resources that previously filled these gaps. She highlights ConCOVE as a household name for reliable research, with some colleagues even asking, “I wonder if ConCOVE has looked into it?” in professional discussions.

In particular, she says the Cook Brothers Construction case study has been helpful in providing guidance around adopting a mentorship model.

“This model has inspired my plan to integrate a structured mentorship programme within the Community of Workplace Learning (CoWL) for NZCB apprentices. The idea of having a central support figure—whether it be a coach or mentor—will ensure apprentices are guided throughout their learning journey, both in professional skills and personal development,” Marcia says.

In addition, she says ConCOVE’s work in micro-credentials has been crucial to her projects.

“I incorporate ConCOVE’s work into my programme structures to ensure they align with New Zealand’s evolving micro-credential landscape and allow for flexible, accessible training that can lead to formal qualifications. Since NZCB programmes don’t carry NZQA credentials, I rely on ConCOVE’s insights to design effective informal learning pathways that align with national standards.”

Marcia appreciates ConCOVE’s commitment to rigorous, cross-referenced research and accessible findings, which increase the credibility of her own programmes. She also highlighted ConCOVE’s willingness to engage in collaborative conversations.

“ConCOVE projects have been an awesome help in shaping my work at NZCB and in my previous role, where I was the industry lead for the Access Trades (apprentices), particularly in enhancing apprenticeship support, mentorship, and workplace training.

“The research has provided me with a clearer understanding of the systemic challenges facing apprentices and has informed the design of the COWL, the badge credentialing system, and mentor programmes. My goal is to create a comprehensive support network that not only helps apprentices complete their training but also sets them up for a successful and fulfilling career in the construction industry.

“My role in shaping NZCB programmes would be far more challenging without ConCOVE’s research. I rely on their findings to inform my decisions, confident that ConCOVE’s work aligns with New Zealand’s evolving vocational landscape.”



Kevin Withell

CASE STUDY 2: COMPETENZ EMPLOYER WORKSHOPS

A ConCOVE research report on the key capabilities required for work-based training is set to be put into action.

As Specialty Trades Manager at Competenz, Kevin Withell is one of the Regional Managers supporting teams of Training Advisors who in turn support Competenz learners in their apprenticeships. The apprenticeship model is a work-based learning model which relies on employers, supervisors and tradespeople to support and guide learners to achieve their qualification.

As a part of their commitment to lift learner outcomes and retention of year one learners, Competenz had already been researching what makes the results differ from one employer to the next. With this in mind, Kevin had seen on LinkedIn a ConCOVE research report by technical and vocational education specialist Jackie Messam which identified and explored the key capabilities and good practices that support effective work-based training. The report confirmed that the issues Competenz had identified existed across many different trades and it also provided a practical and usable framework to improve training outcomes.

Passing this information to Greg Stuart, the Competenz National Manager of Apprenticeships, Jackie was engaged to facilitate a series of workshops for Competenz training advisors and their employers, based on her research findings. A session for Competenz training advisors and then the first employer sessions were held in Christchurch and Auckland in 2024, and a further two are scheduled for the first quarter of 2025 in Wellington and Hamilton.

The response from employers was very positive with a combined focus for Competenz and the employers of retaining the apprentice.

Jackie used an image of a retaining wall to illustrate her work-based trainer framework, designed to develop work-based trainers to empower and support apprentices as they develop into successful tradespeople. The five posts in the retaining wall are the overarching themes of the research. These focus on themselves as work-based trainers and learners, teaching and learning skills, assessment and feedback skills, and finally, building independence in the apprentices to become productive colleagues.

Employers immediately recognised the value of the framework.

“As soon as the employers in our workshop sessions saw the retaining wall framework, they said that’s gold.

“We were also able to identify what our employers were looking for, and how we could support them going forward,” says Kevin.

Other valuable outcomes were the networking that happened as employers shared experiences, strengthening of the training advisor and employer relationship, and adding a new aspect to the Competenz/ employer relationship.

“One of the most beautiful things on the day was that we set half a dozen employers up at tables with their training advisors, and in some cases, they might be competing companies. And it was the networking that was so incredible – conversations about shared experiences, what had worked and didn’t work in training – employers supporting each other. It was almost like a Eureka moment. And through ConCOVE’s research, we had helped identify that commonality by bringing them together.”

Some key themes to emerge included train the trainer workshops, employer induction sessions, sharing of best practice around training, strategies for ongoing training, consistent support and communication.

Direct employer feedback from the workshops will support Competenz to build on the work already started to improve support to employers engaged in Work Based Training.

Competenz also received valuable guidance for further developments from the workshops and is looking forward to the opportunity to explore further collaborations and funding options with ConCOVE.



Betty Mitrova

CASE STUDY 3: CONCOVE RESEARCH A KEY DRIVER FOR CONTINUOUS IMPROVEMENT AT DOWNER

Betty Mitrova, national traffic management lead at construction engineering company Downer, first became aware of ConCOVE's projects and initiatives through New Zealand Country Lead, Craig West, who was a former board member and a strong advocate for their work.

Betty's involvement deepened when she was selected to represent Tier 1 contractors on the Temporary Traffic Management Industry Steering Group (TTM ISG), where she serves as Chair of the TTM Credentials Framework Working Group (TTMCFWG). The TTMCFWG has played a pivotal role in shaping the future of TTM training and competency by developing a new NZQA Credentials Framework to replace the NZTA warrant system. Under Betty's leadership, the Working Group successfully applied for funding from ConCOVE, focusing on exploring priority learner groups to support the framework's development. This initiative includes creating associated training and assessment materials and fostering ongoing industry engagement to ensure the framework's effectiveness and accessibility.

"As leaders in the TTM sector, we remain attuned to initiatives that align with our goals for advancing industry standards and workforce development. ConCOVE's reputation for delivering impactful research naturally drew our interest and alignment with their work," Betty says.

"At Downer, we've always prioritised practical, high-quality training that prepares our workforce for real-world workplace requirements. Historically, TTM training across the sector has often been delivered in a classroom setting, limiting the hands-on learning crucial for building confidence and practical skills.

"ConCOVE's research has pushed us to double down on authenticity, ensuring our training not only meets industry standards but also equips our team to adapt, excel, and lead in dynamic environments. By integrating these findings with our training and day-to-day TTM operations, it's enabling us to build a safer, stronger, and future-ready TTM workforce that drives success for Downer and the industry."

Downer was also interested in ConCOVE's research report by technical and vocational education specialist Jackie Messam which identified and explored the key capabilities and good practices that support effective work-based training, providing a practical and usable framework to improve training outcomes.

It recently held a workshop with Jackie to delve deeper into the research outcomes and explore

ways to effectively integrate them into their TTM training strategies, ensuring they are both impactful and sustainable.

At Downer, the drive for continuous improvement is deeply ingrained in their culture, and they take a structured and tailored approach to implementing change.

"With the introduction of the new TTM credentials framework, which is centred around vocational learning, these changes will become even more critical to Downer's TTM training structure and culture," says Betty.

"Almost all TTM training provided under this framework will be work-based, making the research project on being a work-based trainer essential for equipping our TTM trainers with the skills and tools they need to succeed.

"Our work-based TTM trainers are the backbone of our hands-on learning approach, bridging the gap between theory and practice. By delivering real-world knowledge and skills that resonate with our workforce, they play a crucial role in ensuring our teams are confident, competent, and prepared for on-the-ground challenges."

FINANCIAL STATEMENT / PŪRONGO PŪTEA

Financial Summary of Performance for 31 December 2024

Centre of Vocational Excellence Construction and Infrastructure Income & Expenditure

Period Ending 31 December 2024

	Note	YTD Actual 31 December 2024	Budget YTD 31 December 2024	Full Year Budget
Income				
TEC Funding	1	3,295,740	3,367,439	3,367,439
Total Income		3,295,740	3,367,439	3,367,439
Expenditure				
Staff Related Costs	2	1,574,053	1,588,598	1,588,598
Support Services Costs		250,000	250,000	250,000
Other Direct Costs:				
Contracted Services		0	0	0
Other Direct Costs	3	1,471,687	1,528,841	1,528,841
Total Expenditure		3,295,740	3,367,439	3,367,439
Income Less Expenditure		0	0	0

Notes:

1. TEC funding released to cover the costs incurred during the period, any unspent funds are held as a liability (revenue in advance) in the balance sheet in accordance with the funding terms and conditions of the ConCOVE funding agreement. Any unspent funding at the end of the funding period (31 December 2025) is required to be repaid by 31 March 2026.

2. Includes recruitment, governance

3. Includes consultants/professional services, travel and other operating expenditure

Other:

The ConCoVE started operations from 1 September 2020. Its financial year end is 31 December as is Manukau Institute of Technology (host organisation) is part of Te Pūkenga - New Zealand Institute of Skills and Technology.

Centre of Vocational Excellence Construction and Infrastructure Balance Sheet

As at 31 December 2024	As at 31 December 2024
Assets	
Cash and Cash Equivalent	2,101,751
Trade and Other Receivables	0
Total Assets	2,101,751
Liabilities	
Trade and Other Payables	63,803
Revenue In Advance	2,037,948
Total Liabilities	2,101,751
Net Assets	0
Equity	
Retained Earnings	0
Current Year Surplus/(Deficit)	0
Closing Equity	0



WHERE TO FROM HERE? / HE AHA TE ARONGA TŌMUA

Navigating Challenges, Delivering Impact

There is no doubt that 2024 was a challenging year across the wider vocational education sector, but through it all, ConCOVE has continued to deliver high-quality, actionable research which is valued by industry and providers.

We have stayed true to our kaupapa, putting Māori, Pacific peoples and women at the heart of everything we do, with a vision to transform their vocational education outcomes and support industry to develop a workforce that has the skills and capabilities needed and to attract, grow, and retain its key talent.

2025 will be no different. We have a number of key work streams to be delivered over the course of the year and we will remain focused on partnering with key stakeholders to embed and implement these initiatives, with a view to creating sustainable improvements in all areas of vocational education.

A more resilient and consistent national approach to training and education is needed and ConCOVE's legacy will be the wealth of research and innovation, which, when embedded, will improve the vocational education sector for construction and infrastructure.

And while our time remaining is short, we have every reason to be optimistic that we will achieve our strategic objectives and see this long-term improvement realised. All of our projects take a system change approach- we are not offering quick fixes or short cuts.

You can expect more of us in 2025 as we continue to play a critical role in securing a sustainable future for vocational education. There will be more webinars, collaboration, partnerships, events, reports and research – all addressing an industry's need for an improved vocational education sector. We will continue to challenge the government and sector to ensure research and innovation in vocational education is an investment priority beyond the end of 2025.

We are incredibly grateful to the organisations, people and partners that have supported us through the last year, sharing our vision for system change in vocational education. It is not too late to benefit from this change – head to our website now at www.concove.ac.nz to read our reports and insights and to sign up for our newsletter to stay informed throughout 2025.

2025 – here we come!