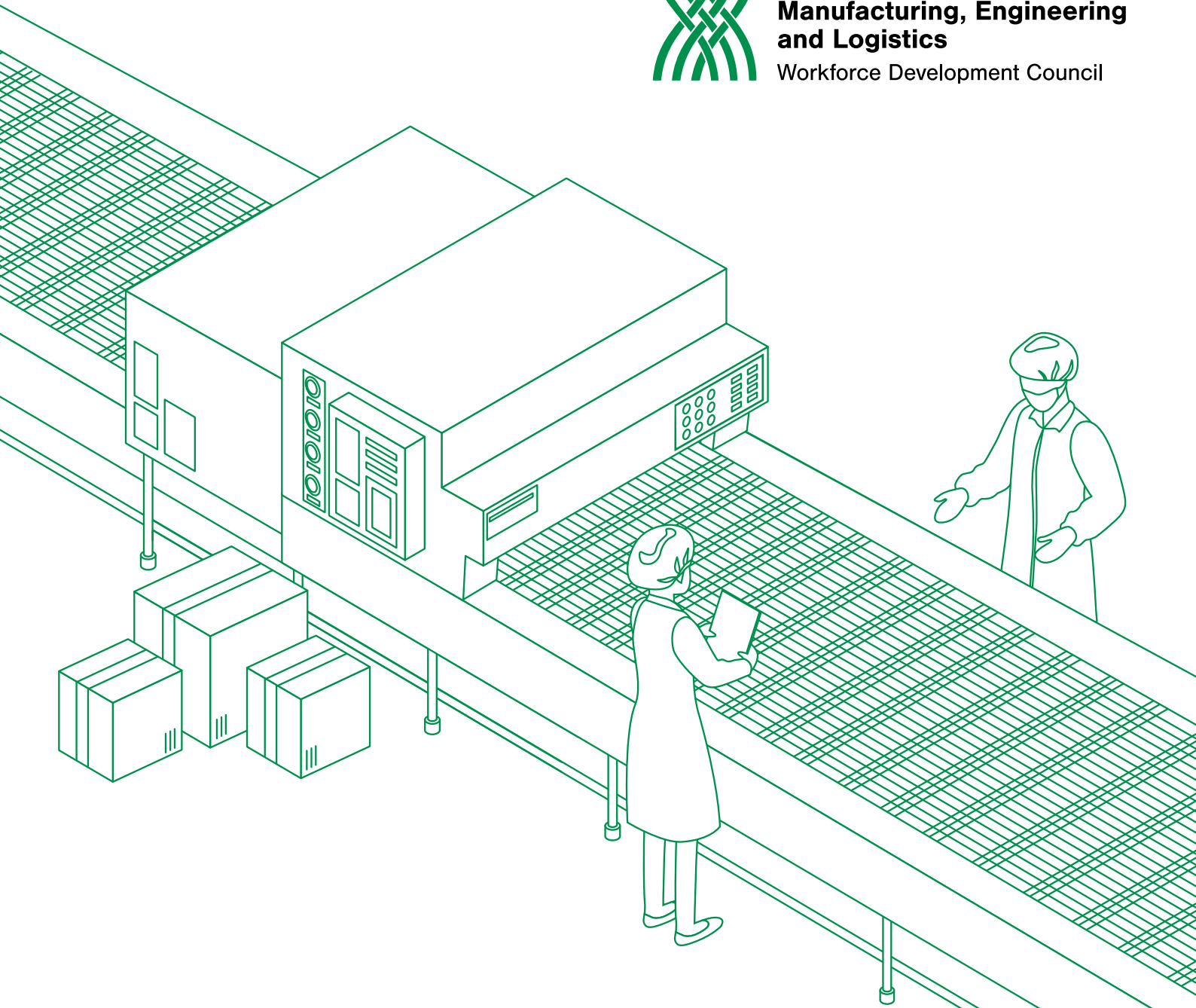




HANGA-ARO-RAU

**Manufacturing, Engineering
and Logistics**

Workforce Development Council



Whakatakotoranga whakaaro 2023 ki Te Amorangi Mātauranga Matua

Advice for 2023 Investment to the
Tertiary Education Commission

30 June 2022

*Mā wai te huarahi e hora? Mā ngā ahu mahi!
Who will pave the pathway forward? Industry will!*

Table of contents

Welcome to the Advice for 2023 Investment to the Tertiary Education Commission (TEC)	1
1 He kōrero nā te poari Foreword from our Council	3
2 Kupu Arataki An introduction	5
3 He tirohanga rautaki Strategic overview	7
3.1 Ā tātou ahu mahi Our industries	8
3.2 Ngā whakaaweawe ki ngā takiwā Our industries' regional impact	10
3.3 Ngā ia o ngā ahumahi e tārei ana i ngā kaupapa matua Industry trends that are shaping our priorities	13
3.4 Ngā āwangawanga mō ngā ahumahi Key pressure points for industry	14
3.5 Ā mātou mahi me ngā kaupapa matua mō ngā ahumahi Our role and our industries' priorities	16
3.6 Pakihi Māori/iwi/hapū Māori business/iwi/hapū industry	17
3.7 Whakapakari i ngā kaimahi Māori Building our Māori workforce	19
3.8 Ngā hononga ā Te Tiriti – Māori me te karauna Te Tiriti o Waitangi and Māori-crown relations	21
3.9 Kaupapa matua mō ngā iwi o Te Moana-nui-ā-Kiwa Pacific peoples' priorities	23
3.10 Kaupapa matua mō ngā iwi hauā Disability priorities	24
3.11 Kaupapa matua mō ngā iwi whakaaro-rau-ā-io Neurodiverse priorities	24
3.12 Kaupapa matua mō ngā ākongā Learner priorities	24
4 Kaupapa matua-ā-rohe, ā-motu hoki mō te mātauranga ahumahinga Regional and national skill priorities for vocational education	25
5 He whakaaro mō te toha pūtea Advice on mix of investment	27
5.1 Kaupapa matua mō Hanga-Aro-Rau Hanga-Aro-Rau sector priorities	27
5.2 Kaupapa tūāpapa ā ngā Ohu Ahumahi Overarching priorities from WDCs	28
6 He whakaaro mō ngā kaituku-mātauranga Advice to specific TEOs	29
6.1 Ō mātou hoa kaituku-mātauranga Our provider partners	29
6.2 Te Pūkenga	29
6.3 He kaituku-mātauranga anō Other providers	31
7 He whakaaro anō Other advice which could inform investment	32
7.1 Kei tua o te mate-karauna Post COVID-19 Project	32
8 Te waihanga me te tiaki i ngā akoranga ahumahinga Vocational programme development and maintenance	33
8.1 Te mahi whakaōrite hei whakapiki i te kounga Moderation as a continuous improvement tool	33
9 Ēnei whakaaro me ō mātou haepapa Āta Huritao: This advice and our duties	34
10 Kuputaka Glossary	35
11 Kohinga Kōrero References	36
Tāpiritanga Tahī Appendix 1	38
Regional Data – Source: Infometrics	
Tāpiritanga Rua Appendix 2	41
Hanga-aro-rau provider partners list	
Tāpiritanga Toru Appendix 3	43
Process for developing the advice	



Dairy processing is part of Hanga-Aro-Rau's gazetted coverage.

Welcome to the Advice for 2023 Investment to the Tertiary Education Commission (TEC)

Our goal is to help shape a sustainable, equitable, globally engaged, and adaptive Aotearoa New Zealand to enable greater social mobility and prosperity. This interim advice will also drive transformational change in our vocational education system to make it accessible and inclusive to all, with industry voice always at the centre of our work.

We are committed to embedding equity in our mahi and relationships as we walk alongside our many collaborators and partners including industry, Te Tiriti partners, iwi, hapū, the Government, the broader RoVE ecosystem, unions, employers and employees, learners, and influencers.

Our focus prioritises five key areas of (1) industry voice; (2) Te Tiriti o Waitangi; (3) equity; (4) current and future workforce development needs; and (5) qualifications systems, programme endorsement and moderation; enable us to perform the required functions under Section 366 of the Education and Training Act 2020, as well as those outlined in our Order in Council.

This advice leverages the deep knowledge we have already gained through our engagement with industry, employers, Māori business/iwi/hapū, Regional Skills Leadership Groups (RSLGs) and the breadth of experience and knowledge within the Hanga-Aro-Rau team.

We will know we are successful in meeting our industry voice priorities when industry has confidence that we fully understand the skills they need, we are well connected to all our stakeholders, our Pacific people's engagement meets the Pacific Action Plan outcomes, we understand Māori and iwi business aspirations in our sectors and meet Ka Hikitia outcomes, and these are embedded in how we advise investment, and transform qualifications systems, programme endorsement and moderation with the overall goal of creating meaningful shifts for the benefit of workforce development so our nation may thrive.

We are excited to continue our role in creating change in the vocational education ecosystem that will deliver the skills our industries and their people need, while prioritising a greater volume of diversity and stronger equity of outcomes.

We make a number of recommendations and provide advice based upon our current understanding on industry expectations and regional need. We have seen indications of the requirement for further investment in four key areas:

1. Projects that support regional imperatives where vocational solutions will have an immediate and significant impact to advancing employers and industries, while paving strong career pathways to attract new and emerging talent.
2. Providers strengthening focus on growing engagement with Māori businesses to grow the future workforces for manufacturing, engineering, and logistics. This will have the long-term benefit of developing the future workforce now.

3. Prioritising programme consolidation in Te Pūkenga, especially in the pre-employment and pre-trade space.
4. Supporting providers that demonstrably deliver quality and equitable outcomes for learners that align with industry needs with:
 - a) a mix of provision that allows for pathways of training, the ability to transfer skills to allow workers to move between sectors and careers and redeploy staff.
 - b) a vocational education system that recognises current experience and competence to enable further reskilling or upskilling (especially if that upskilling is via tools such as micro-credentials that might target specific capability development, but implicitly rely on previous knowledge and experience).
 - c) programmes that align with industry priorities.

While we acknowledge that a large amount of training for the majority of our sectors is delivered on the job, more can be done to better meet and anticipate employer and industry needs as they relate to the future of work.

Increased resource, support and training requirements for cultural capability, diversity and equity is needed across the vocational education system. Improving awareness, understanding and how individuals and organisations can take it upon themselves to be better educated and informed will be critical to impactful change in honouring Te Tiriti o Waitangi, as well as creating positive experiences for all those that fuel our economy and industries now and for generations to come. To build sufficient capacity and capability will take innovation and it will involve consideration of how the three Wānanga, organisations such as Ako Aotearoa and iwi/hapū, can provide support for immediate specialised capacity and supporting longer-term capability building across all staff.

In addition, we know that future workforces will be more diverse and comprise groups that have been traditionally underserved. A key priority in addressing skills shortages will be through improving the employment and social mobility outcomes for Māori and Pacific peoples. The mix of provision needs to provide demonstrable links to enhancing this through the provision of transferable skills, short courses for employers to raise awareness and clearer and relevant career and education pathways.

We look forward to partnering with TEC to shape the Supplementary Plan Guidance for TEO Investment Plans in the coming month as we continue to evolve our advice in the support of our industries.

Phil Alexander-Crawford, Chief Executive and Samantha McNaughton, Deputy Chief Executive

1 He kōrero nā te poari Foreword from our Council

Tēnā koutou katoa

Our matawhānui or broad vision for Hanga-Aro-Rau is that the manufacturing, engineering, and logistics industries we represent will have a greater leadership role and influence across the vocational education system and its transformation.

Our corresponding aspirations for the vocational education system are, in turn, firmly grounded in the Reform of Vocational Education (RoVE) vision that vocational education delivers intergenerational wellbeing and supports an economy that is growing and working for everyone in Aotearoa New Zealand, while honouring Te Tiriti o Waitangi. Our role is to bring the industry voice to that kaupapa, or purpose.

We acknowledge the lineage of the RoVE whakapapa and the mahi of all those who have gone before in creating this kaupapa of transformation, and those who we now walk alongside in its implementation. We particularly acknowledge the contributions of the Interim Establishment Board. We also recognise the support of our sister Workforce Development Councils, noting our joint ongoing commitment towards collaboration for the benefit of our industries, some of which cross WDCs in their training requirements.

To that we end we see this first advice given to the Tertiary Education Commission (TEC) as being another important step in delivering the vision and transformation needed in our vocational education system.

We identify the many challenges that remain as New Zealand begins its recovery from the social and economic impacts of COVID-19, and we commit to addressing the unique needs of our industries, communities, and partners that we serve.

Removing barriers to learning for our Māori, Pacific peoples, neurodiverse, aging, and disabled workforce is a top priority, and others will emerge as we continue to evolve and grow as a key influence in the reformed vocational education system, as well as further progress on systematic, meaningful engagement with our industries to build our five-year Strategic Statement of Direction.

In the context of an ever-changing environment, this plan takes an immediate view of what our industries need and our advice to TEC will evolve as we do to create impactful change for our industries and employers to benefit workforces including current and future learners), their whānau, iwi, hapū and communities (particularly those traditionally underserved). We look forward to partnering with you.



Ngā manaakitanga
Dr Troy Coyle and Renata Hakiwai
Hanga-Aro-Rau Co-chairs



The print sector is part of the wider manufacturing industry, part of Hanga-Aro-Rau's coverage areas.

2 Kupu Arataki

An introduction

The purpose of this advice is to provide the Tertiary Education Commission (TEC) with key themes and high-level advice gathered through our engagement with industry and employers. We acknowledge that this early advice will shape the Supplementary Plan Guidance to Tertiary Education Organisations (TEOs) which informs their investment plans for 2023. We are encouraged that this advice will be used to consider wider impacts on the vocational education sector and TEO ability to respond.

Summary of recommendations included in the advice to TEC from Hanga-Aro-Rau

	Hanga-Aro-Rau advice	TEC implements	Provider implements	Outcome
Tahi	<p>Prioritise regional-specific initiatives that demonstrate strong career pathways to attract new and emerging talent in the regions.</p> <p>Hanga-Aro-Rau would work with TEC to develop the criteria for investment, and all projects would need to demonstrate strong RoVE ecosystem collaboration, industry connection, regional focus (including mana whenua), and government interest.</p> <p>This links strongly to priorities 1 and 4 outlined in the Advanced Manufacturing Industry Transformation Plan. Hanga-Aro-Rau will be a lead organisation in implementing these priorities, and the sector will likely require bespoke investment to support pilot initiatives.</p>	<p>TEC invests in projects that support regional imperatives where vocational solutions will have an immediate and significant impact to advancing employers and industries.</p>	<p>Providers pilot targeted provincial initiatives against strategic component funding.</p>	<p>This would enable immediate innovation while the RoVE ecosystem (and its tools e.g., the UFS and new National Curricula) are being respectively implemented or developed. This would be a great example of being able to incentivise transformative behaviours in the vocational education system as it continues to evolve, while still ensuring industry can thrive.</p>
Rua	<p>A large proportion of non-Māori (or 'mainstream') businesses employ larger proportions of Māori, we believe that these businesses will be influential in effecting change for Māori. In addition, Māori businesses are more likely to employ Māori kaimahi, and we encourage providers to establish strong connections with these businesses to immediately impact workforce development.</p> <p>Hanga-Aro-Rau will continue its focus on engaging with Māori businesses, as well as mainstream employers that employ Māori to ensure the vocational education system meets their needs. This will be researched and tested in 2022/23 and if proven correct, further advice and guidance issued.</p>	<p>TEC requires investment plans to include statements of service performance to engage with Māori business.</p>	<p>Te Pūkenga and other providers focus their attention on growing engagement with Māori businesses to grow the future workforces for manufacturing, engineering, and logistics. This will have the long-term benefit of developing the future workforce now.</p>	<p>Māori businesses are three times more likely to employ Māori than non-Māori businesses, provider focus will help grow Māori engagement and success in vocational education and participation in Hanga-Aro-Rau workforces.</p>
Toru	<p>Hanga-Aro-Rau's mechanical engineering, fabrication and automotive engineering sectors are supported by a myriad of pre-trade programmes delivered by almost all the ITP subsidiary network. There is a priority opportunity to work to consolidate these programmes to ensure pathways (and content) are clear and endorsed by industry.</p> <p>We support the focus of Te Pūkenga on programme consolidation; this is especially important for employers in ensuring that their graduates (and future staff) or current staff are reaching a consistent level of competency that aligns with industry requirements and priorities.</p>	<p>Require provider statements of service provision (SSPs) to set targets against entry-level vocational pathways as they are essential for developing a pipeline of future employees.</p>	<p>Te Pūkenga to prioritise programme consolidation in the pre-employment and pre-trade space.</p>	<p>Ākonga/tauirā gain exposure to relevant skills and pathway more effectively into sustainable employment and apprenticeships.</p> <p>Attracting staff (and ensuring a sustainable pipeline of new staff) is a clear priority for all our sectors.</p>
Whā	<p>Prioritise more immediate project-based investment that leverages employers and/or learning technologies demonstrating delivery of quality and equitable outcomes that align with industry needs.</p> <p>Hanga-Aro-Rau will support providers that can demonstrably deliver quality and equitable outcomes for learners that align with industry needs. We know there are gaps in hi-tech provision and access to equipment, so providers that can provide this access through leveraging employers and/or learning technologies should be considered for funding.</p> <p>This links strongly to priorities 1 and 4 outlined in the Advanced Manufacturing Industry Transformation Plan. Hanga-Aro-Rau will be a lead organisation in implementing these priorities, and the sector will likely require bespoke investment to support pilot initiatives.</p>	<p>Hanga-Aro-Rau would work with TEC, and other agencies as applicable, to develop the assessment criteria and provide endorsement on any applications made by a provider that leverages hi-tech provision and access to equipment with industry and employers.</p>	<p>PTEs develop nimbler delivery and enable immediate innovation to vocational education provision particularly with hi-tech provision and access to equipment, leveraging employers and/or learning technologies.</p>	<p>Greater access to hi-tech provision and access to equipment that demonstrates delivery of quality and equitable outcomes.</p>
Rima	<p>Programme development and maintenance needs to be prioritised and is linked to the qualification review cycle or priorities identified by industry or challenges with provision. Providers are key stakeholder of qualification reviews to enable co-design of programmes.</p>	<p>COVID impact has resulted in a more urgent need to review the programme out of the qualification development cycle. SSPs are developed to align prioritisation against success factors.</p>	<p>Programmes prioritised for maintenance may meet one or more of the following:</p> <ul style="list-style-type: none"> • Learner achievement is poor, inequitable, or declining • Industry has formally raised disaffection • Consistently poor moderation outcomes or non-compliance by the provider 	<p>Where there are known challenges with programmes that are impacting on industry success, they are prioritised for additional investment improving workforce development.</p>

3 He tirohanga rautaki

Strategic overview

Hanga-Aro-Rau Workforce Development Council represents the manufacturing, engineering and logistics industries including wood manufacturing, bakery, butchery, mechanical, automotive and marine engineering, dairy processing, extractives and drilling, and transport.

The industries Hanga-Aro-Rau serves

Manufacturing

- Alcohol Manufacturing (Excluding Wine)
- Aluminium Joinery
- Apparel
- Automotive Parts and Wholesaling
- Baking
- Binding and Finishing
- Boat Building and Maintenance
- Chemical Manufacturing
- Dairy Processing
- Direct Mail Production
- Energy and Chemical Plant Operations
- Fibreboard and Paper Packaging
- Food and Beverage Manufacturing
- Furniture Manufacturing
- General Manufacturing
- Glass Processing
- Industrial Textiles
- Kitchen Joinery
- Marine Technology
- Meat Processing
- Metal Manufacturing
- Motor Vehicle Manufacturing (Coachbuilding)
- Non-Metallic Mineral Manufacturing
- Offsite Manufacturing
- Petroleum and Coal Manufacturing
- Pharmaceutical and Medicinal Product Manufacturing
- Plastics, Polymer and Rubber Product Manufacturing
- Primary Processing Support
- Print
- Protective Coatings
- Pulp and Paper
- Retail Meat/Butchery
- Signmaking
- Solid Wood Manufacturing
- Textiles
- Tissue Converting
- Wood Panel and Plywood Manufacturing

Engineering

- Automotive Engineering
- Automotive Reglazing
- Collision Repair
- Composites Technology
- Dairy Systems Engineering
- Engineering Design and Consulting Services
- Engineering Fabrication
- Extractives
- Extractives - Blasting
- Extractives - Drilling
- Fire Protection
- Irrigation
- Laundry and Dry-Cleaning Services
- Locksmithing
- Maintenance Engineering
- Mechanical Building Services
- Mechanical Engineering
- Motorcycle Engineering
- Outdoor Power Equipment
- Refrigeration and Airconditioning
- Welding

Logistics

- Air and Space Transport
- Commercial Road Transport
- Customs and Freight Support Services
- Digital Infrastructure
- Driving Skills
- Forklift
- Marina Operations
- Postal and Courier Services
- Rail Transport
- Resource Recovery and Efficiency
- Road Passenger Services
- Stevedoring and Ports
- Supply Chain
- Warehousing and Storage
- Water Freight and Passenger Transport

Our purpose is to provide industry with a strong voice in making Aotearoa New Zealand's workforce fit for today and the future. As vocational education has a direct impact on improving social, economic and sustainability outcomes, we continue to work on its transformation, making it more accessible to all New Zealanders.




"We acknowledge the effort Hanga-Aro-Rau is putting into establishing close links with industry (representatives), right from the top (CEO) to the operational levels. The extensive industry consultation Hanga-Aro-Rau undertook in preparation for its research project on the Post COVID 19 Workforce Development Needs in New Zealand's Manufacturing and Engineering Industries may serve as an example here". - Dieter Adam, CE, NZMEA 27 4 2022


3.1 Ā tātou ahu mahi

Our industries


Our Industry Data




Manufacturing
37 subsectors




Engineering
21 subsectors



Logistics
15 subsectors



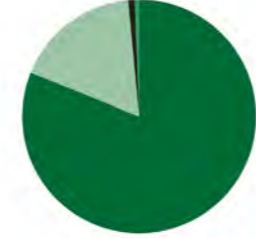
25.2% Total NZ workforce




33.7%
Women
(in M, E, L)

Business size

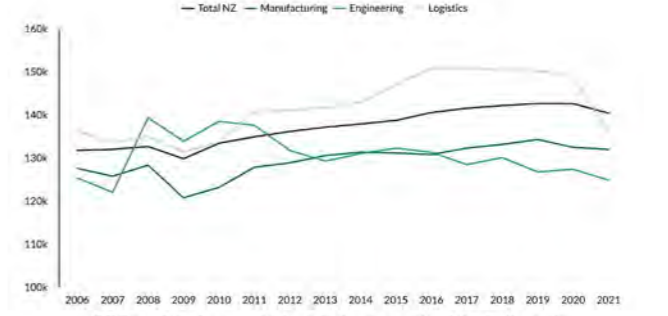
- Under 5 employees (81.1%)
- 6 to 49 employees (17.4%)
- 50 to 99 employees (0.9%)
- Over 100 employees (0.6%)



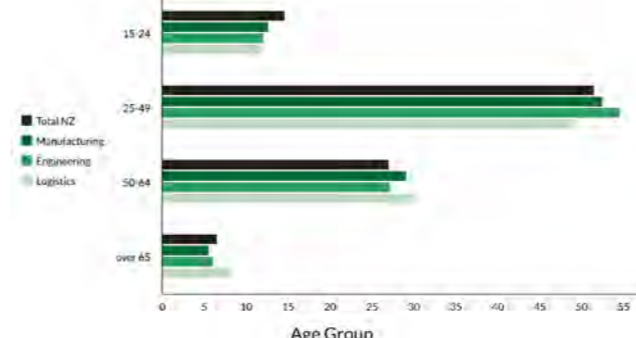
13.9% self-employed



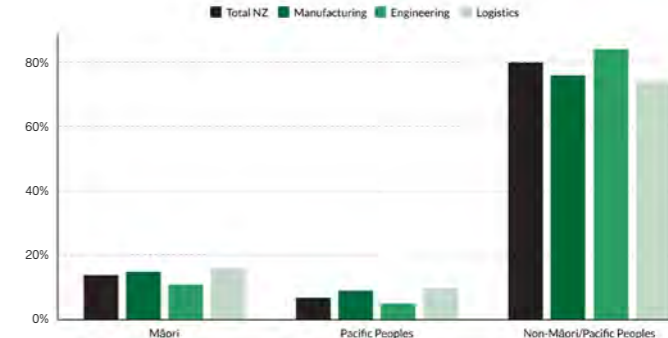
GDP per full-time-equivalent (industry productivity indicator)



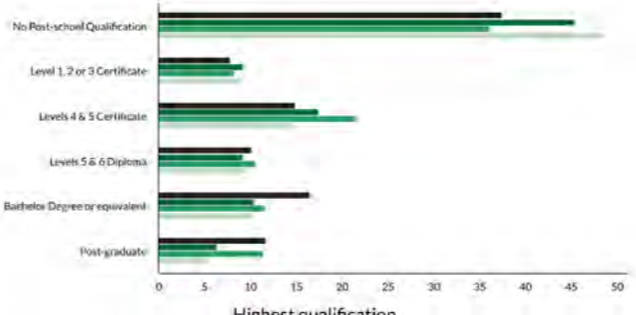
Age Group




New Zealand Workforce Ethnicity



Highest qualification

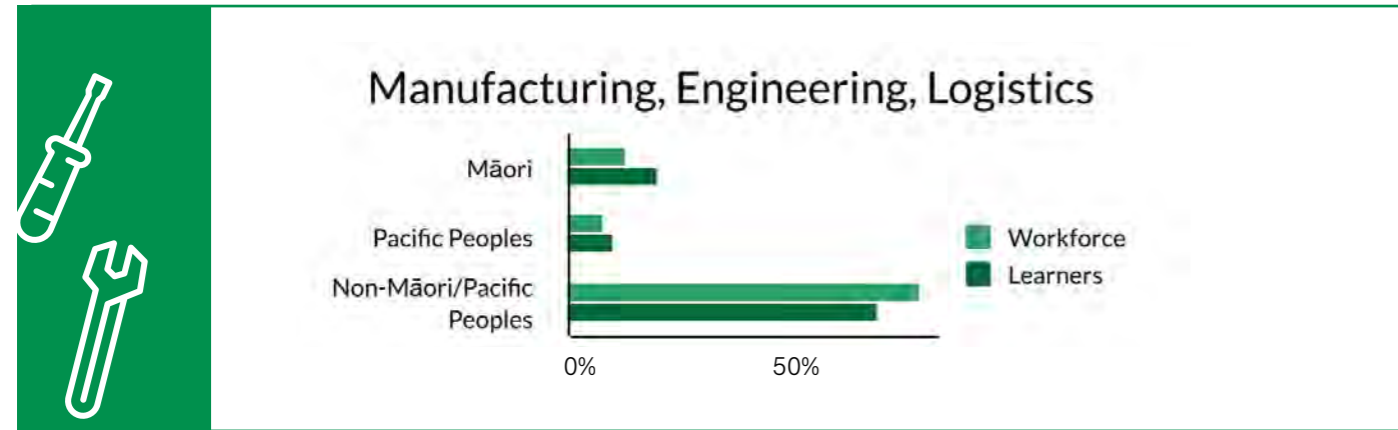


TOTAL GDP



MEL is 24.7% of Total NZ GDP (\$326 B)

Vocational Education and Training (VET) data for our sectors



222
Qualifications

4,285
Unit Standards

92
Tertiary Education Providers
(as at April 2022, including Te Pūkenga subsidiaries)

82%
Programmes provided by Te Pūkenga

1 in 5
learners in Vocational Education and Training are working towards qualifications relating to Manufacturing, Engineering and Logistics.

75%
Learners in Levels 3 & 4 Qualifications

3.2 Ngā whakaaweawe ki ngā takiwā

Our Industries' regional impact

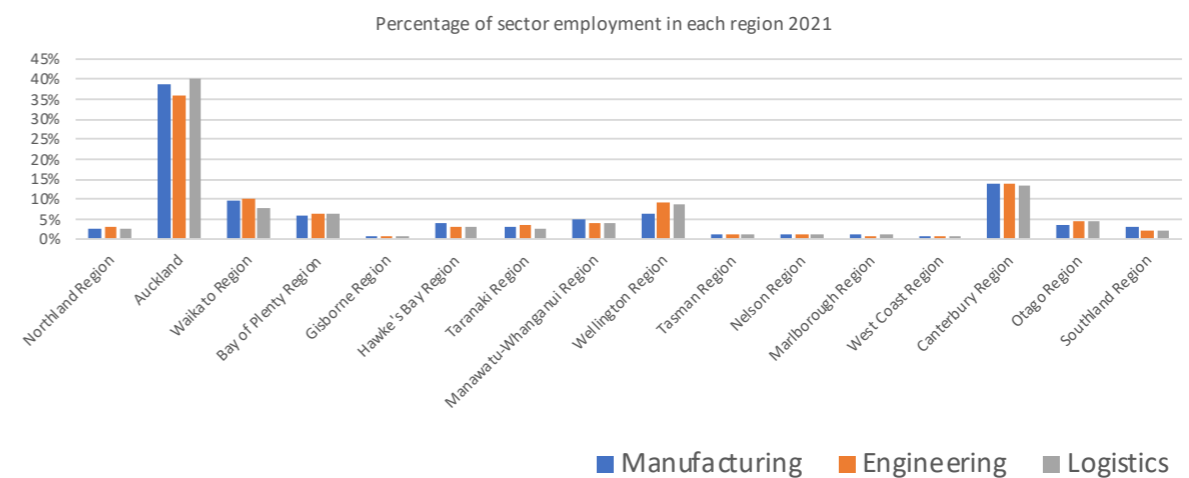
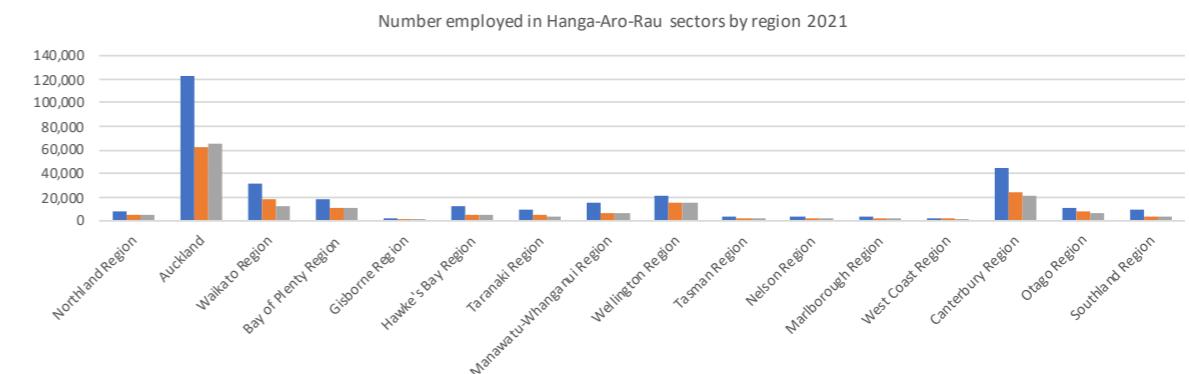
Hanga-Aro-Rau sectors contribute significantly to employment in all regions, and to regional GDP. It is important that all within the RoVE ecosystem are cognisant of each region as they are the heart and feeder to nationally applicable strategy. In addition, to honour Te Tiriti, for iwi, hapū, Māori it is essential that their mana whenua status is also recognised.

For us, at an aggregate level, most of the employment in manufacturing, engineering and logistics follows population levels residing in the larger regions (Auckland, Christchurch, Waikato, Wellington). However, these sectors also provide critical employment in the smaller regions, making up around 25 per cent of total regional employment on average.

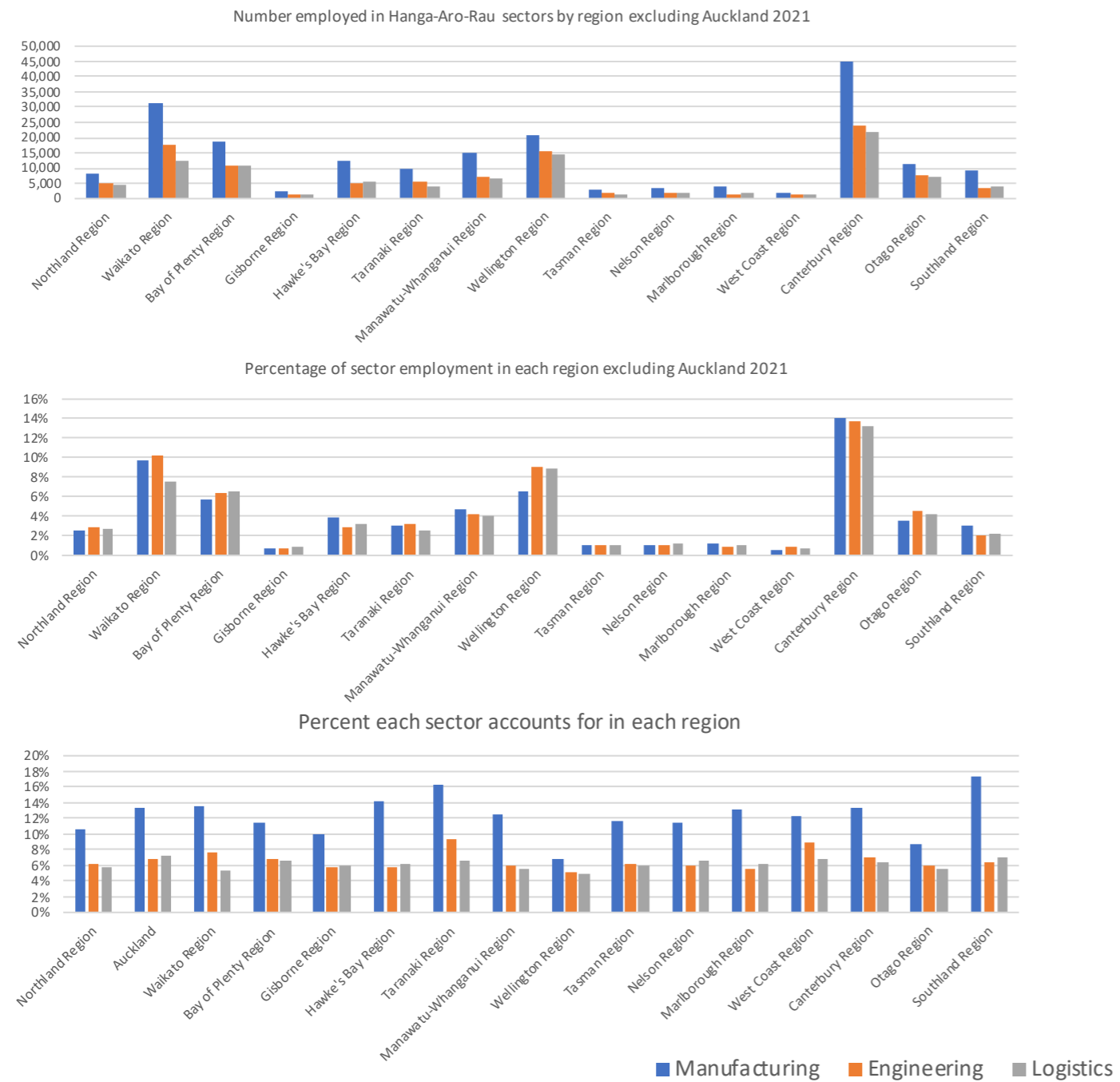
In addition, these sectors support the value-added processing of our primary sector and support interconnected supply chains and capability across regions. Clear connections between WDC workforce plans, advice to TEC and advocating for industry will be critical as we continue to evolve.

The following graphs outline the spread of employment in Hanga-Aro-Rau's sectors across all regions. Given the dominance of Auckland, we have also analysed the data with and without Auckland regional employment, to more intricately understand regional employment trends and potential vocational education priorities (including future investment priorities) to meet the evolving employment requirements.

Spread of employment in Hanga-Aro-Rau's sectors across all regions



■ Manufacturing ■ Engineering ■ Logistics



Based on the data presented in the above graphs, manufacturing makes up, on average, 12 per cent of total employment across the regions; however, this is higher in Southland, Taranaki, Waikato, Auckland, Canterbury, and Marlborough. Engineering makes up an average of 7 per cent of total employment nationally; with Taranaki, West Coast and Waikato having the highest proportion of engineering employment as a percentage of their regions total employment. Lastly, logistics makes up an average of 6 per cent of total employment nationally; with Auckland, Taranaki, West Coast and Southland having the highest proportions in their region.

More detailed information around specific regional imperatives can be reviewed in Appendix 1.

We have started working with regional economic development agencies, chambers of commerce, the Ministry of Business Innovation and Enterprise (MBIE) and other regionally focused groups on regional workforce development. To build strong, sustainable, and socially connected, productive workforces, we need to understand what is happening in the regions to inform national strategy. As we have heard: 'Aotearoa is the sum of all regions.'

Case study: Otago collaboration in action

Working with the regions gives us opportunity to collaborate and partner across the workforce and vocational education system to support projects, many of which are designed to provide welcome boosts to employment and community wellbeing.

As an example, two projects currently in development are the new Dunedin Hospital and the Hillside workshops redevelopment. Working in partnership with Ohu Mahi (Waihanga Ara Rau, Hanga-Aro-Rau, Toitū te Waiora Workforce Development Councils) and joining with TEC, Te Pūkenga, MBIE, industry, iwi, and other groups, such as SOREC, it is the type of collaboration that we see as essential to connect and support the wide range of Government investment that occurs in such a project. This will identify how a workforce can be developed to meet specific industry, employer, and regional demands. Within it there will be a focus on building workforces that include (and embrace) those who traditionally have been underserved by our education system.

In our Hanga-Aro-Rau visits to Dunedin, what has become highly evident is that these projects can have both a positive and adverse effect on existing employers in a region. The projected demand for engineers is such for these projects that if we do not build the pipeline for new workers they will instead be drained from existing companies, which is a risk for regional viability and international competitiveness.

Through employer engagement, we heard from one engineering company in Dunedin, which we have spoken with about the projects, that they are concerned that if they lost staff, it would mean the highly specialised work they undertake nationally would need to go offshore impacting service provision in Aotearoa New Zealand. This employer and several other employers across the motu have indicated the need for business-specific workforce development plans, a service previously provided by industry training organisations, yet unallocated in the reformed vocational education system.

Recommendation and advice: Tahī

We know all employers are facing challenges, and these are either exacerbated or addressed through regional-specific initiatives.

We recommend that TEC invests in projects that support regional imperatives where vocational solutions will have an immediate and significant impact to advancing employers and industries, while paving strong career pathways to attract new and emerging talent.

Hanga-Aro-Rau would work with TEC to develop the criteria for investment, and all projects would need to demonstrate strong RoVE eco-system collaboration, industry connection, regional focus (including mana whenua), and government interest. This would enable immediate innovation while the RoVE ecosystem (and its tools e.g., the UFS and new National Curricula) are being respectively implemented or developed.

This would be a great example of being able to incentivise transformative behaviours in the vocational education system as it continues to evolve, while still ensuring industry can thrive.

3.3 Ngā ia o ngā ahumahi e tārei ana i ngā kaupapa matua

Industry trends that are shaping our priorities

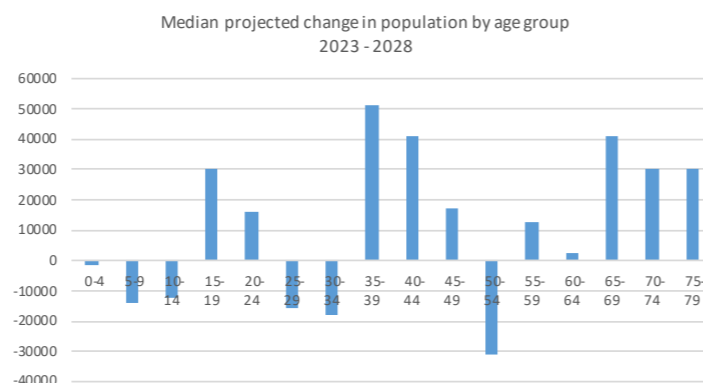
All of our sectors are facing common challenges in the workforce. Some issues have existed for some time such as meeting the demand for new skills due to the rapid growth of technology because of Industry 4.0 (the 4th Industrial Revolution), through to an aging workforce, a lack of succession planning and a demand for leadership training.

Many of these challenges have been further exacerbated by COVID-19 and its ongoing impacts – not only to individual workplaces and workforces due to lockdowns and isolation, but to the broader supply chain due to global disruption. The lack of skills traditionally sourced through immigration or international work visas have exasperated the skills gap. A low unemployment rate has reduced employers' access to the labour market, which in turn has forced business to adopt automation to fill the lack of manual labour. However this has brought on new challenges such as a skills shift where digital and cognitive skills are required to replace these previous roles in employment.

An additional pressure point for industry is the aging workforce, with the country's demographic profile undergoing significant change. At Census 2018 slightly more than a quarter (27 per cent) of the national workforce were in the 50-to-64-year age groups combined with an average age of 42 years. All three of Hanga-Aro-Rau's high-level sectors had the same or higher proportion of their workforce in these age groups and the average age slightly higher:

- 29 per cent of manufacturing (average age 43)
- 27 per cent of engineering (average age 43)
- 30 per cent of logistics (average age 44).

Using median projected population data from Statistics NZ for the period 2023 to 2028 it is evident that some 'working age' groups will grow only slowly or decline. Of particular interest for the labour market is the very low level of growth in the four age groups 45 to 64 years which will be insufficient to replace those retiring ahead of them. While there will be notable growth in the two age groups 35 to 44 years, the growth for the age groups behind them is either moderate in comparison or negative.



In contrast, between 2023 and 2028 the number of Māori in each age group (15-69yrs) will grow except in the 50-54yr group; there will be higher proportions of Māori in the younger age groups, showing the opportunity of building our workforce needs from that and our Pacific peoples' communities. Accordingly, we need to ensure training pathways that suit their needs and support their successful transition into the manufacturing, engineering and logistics workforce.

Hanga-Aro-Rau has a particular focus on priority learner groups who have been traditionally underserved by the education system, especially in trades and STEM fields. In 2022/23, our focus covers female, Māori, Pacific peoples, and our disabled populations. Their occupational profile in our sector is quite different to that of the economy as a whole:

- Only a quarter of employees are female
- Together, our sectors employ a higher proportion of Māori and Pacific peoples than total industries (14 per cent and 8.4 per cent respectively, compared to 13.5 per cent and 6.5 per cent for all NZ industries)
- Only 15.5 per cent of workers registered as disabled work in our sectors, although we account for 25 per cent of the total workforce.

Employment in the sector declined following the Global Financial Crisis and bottomed out in 2014, after which there have been annual increases except for a 0.7 per cent fall of 2,352 positions in 2021. Employment is forecast to continue its growth:

- Together, our sectors experienced annual job growth of between 12,000 -15,000 between 2015 and 2019
- Job growth in 2020 was half of that in 2019 and was negative in 2021 with a drop of 6,000. (Most job losses were in logistics – the group most impacted by COVID)
- Employment in our sectors is forecast to grow annually exceeding 700,000 in 2027; this represents an 8 per cent increase from 2021.

3.4 Ngā āwangawanga mō ngā ahumahi

Key pressure points for industry

Above, we have outlined the key industry trends in terms of employment, workforce demographics, regional contribution, and education achievement. This section seeks to describe the key trends emerging that influence industry workforce development priorities, and how these relate to vocational education. The biggest opportunity is to create RoVE ecosystem efficiencies that will truly enable industry to address these challenges.

The Advanced Manufacturing Industry Transformation Plan¹ provides considerable direction as to how that industry would like to connect with vocational education. This plan summarises the challenges faced by many manufacturing and engineering businesses and is informed by a wealth of research and industry engagement.

The priorities discussed below, while attributed to the advanced manufacturing industry, are emerging themes across all our industries and their sectors as noted in previous research and workforce development strategies, including the Commercial Road Transport Workforce Development Strategy developed by MITO².

The key priorities for our industries as they relate to workforce development include:

1. Attracting new staff

Recruiting workers with the right skills can be difficult because there is an aging workforce, strong international competition for skills, and a limited number of graduates and apprentices.

Industry has identified it requires:

- A pipeline of appropriately skilled workers needs to be created
- To enhance our industries' brand within education and skills pathways to lift the attractiveness of these sectors as a career option to increase diversity at all levels within the sector, with a particular focus on women, Māori, and Pacific peoples
- To ensure pathways create sustainable careers and sustainable outcomes for all.

2. Upskilling existing employees

Investing in worker capability through on-the-job training has been recognised as an important contribution to address skills shortages and manage the transition to increased use of Industry 4.0 technologies. In addition, upskilling and reskilling are important tools to attract and, more critically, retain talent as competition increases across other sectors and (international) markets.

Industry has indicated they need to:

- Address skills shortages through upskilling and training, include retraining as technology continues to evolve
- Train staff so new technology and equipment can be supported by on-the-job training of existing staff to ensure it is fully utilised
- Ensure the aspirations of Māori and Pacific peoples working in these sectors can be supported.
- Advocate for life-long learning, growing their people to support high performing and innovative workforces.

¹ Advanced Manufacturing Industry Transformation Plan Scope <https://www.mbie.govt.nz/assets/advanced-manufacturing-itp-scope.pdf> retrieved 22 April 2022

² Commercial Road Transport Workforce Development Strategy MITO, December 2019

3. Leadership and management capability

A skills gap was also identified at management level regarding commercialisation, training, strategic planning, and capital investment planning. In addition, the aging workforce has put pressure on succession planning, and it is essential to ensure there are strong and supported pathways to develop future leaders and business owners as an increasing proportion of the current workforce starts to retire.

Industry would like to:

- Lift leadership capability
- Improve knowledge of the availability, value and application of more advanced manufacturing equipment and technology
- Improve work conditions through automated machinery undertaking repetitive or riskier production, while reducing the reliance on overnight shift work.



“What is causing us frustration at times is the slow apparent pace at which RoVE is being rolled out, and the uncertainties created in the process. While we acknowledge the size of the task RoVE has taken on, the fact remains that uncertainty about who is responsible for what at a detail level, and about due process, is creating undesirable hold-ups.”

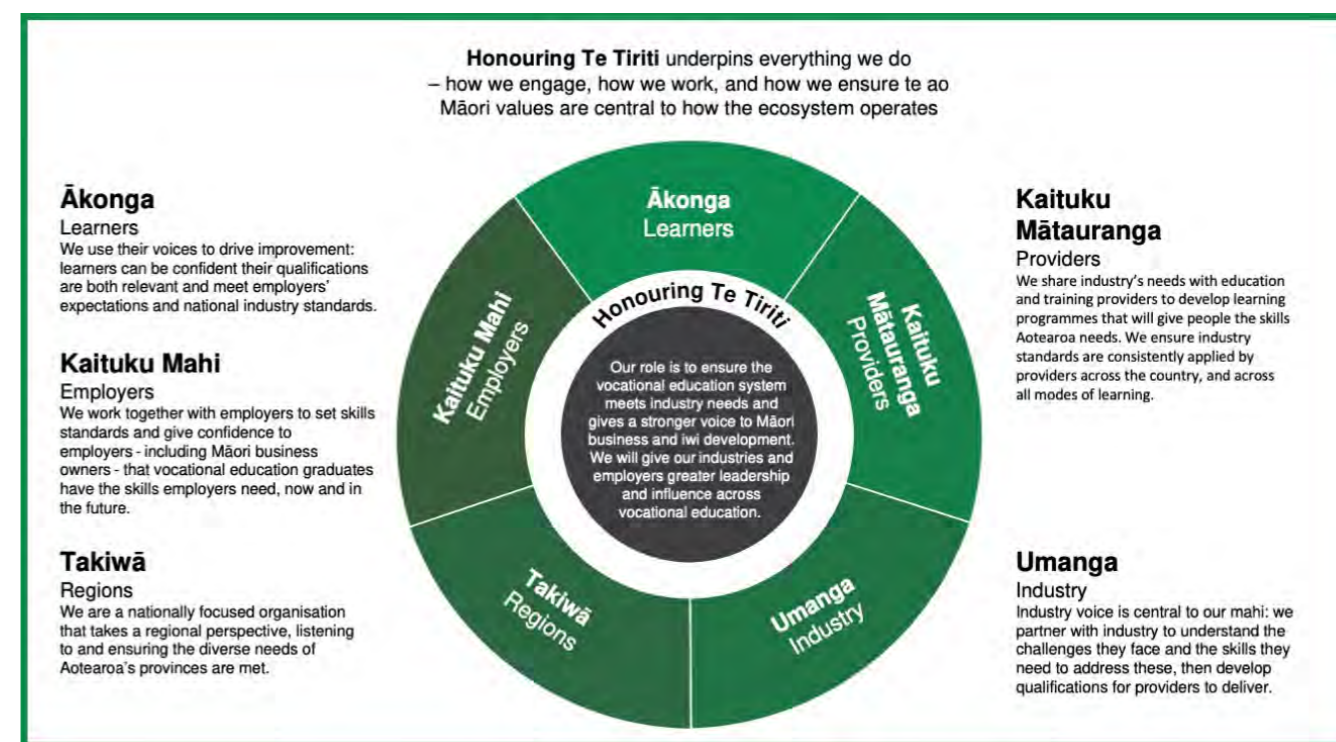
- Dieter Adam, CE, NZMEA 27 4 2022

3.5 Ā mātou mahi me ngā kaupapa matua mō ngā ahumahi Our role and our industries' priorities

Hanga-Aro-Rau is one part of a very wide vocational education system. We know our industries and employers are looking to address the challenges of meeting the demand for new skills. For us, a key element to our mahi and success will be contingent on how we continue to be a trusted partner, how we collaborate and how we lead transformation, not only in vocational education, but in supporting our industries, and most critically, their workforces to maximise their potential.

How Hanga-Aro-Rau is contributing to RoVE outcomes

The below diagram shows how we see ourselves in delivering better outcomes for those that we serve and vocational education more widely. It is derived from the shared RoVE outcomes diagram and informed specifically by our duties and functions contained in our Order in Council.



Hanga-Aro-Rau has been asked to provide an initial view on funding to TEC based on the Unified Funding System settings. The new system is designed to better incentivise transformative behaviours in the vocational education system.

The intent of the reform has meant there is a shift in the responsibilities each part of the system has in terms of meeting the needs of learners and their whānau, employer, iwi, hapū and community. The way in which Hanga-Aro-Rau works seeks to honour this intention.

It is our intention that:

- Employers and industry have a greater say and a greater stake in attracting, recruiting, and developing the skilled workers they need, and we can facilitate a “way in” including investment and participation to the vocational education sector.
- Employers recognise and value vocational education courses, programmes, qualifications, and pathways.
- Employers are supported to plan and define skills, knowledge, and capability.
- Opportunities are created for meaningful work-integrated learning
- We work alongside Regional Skills Leadership Groups (RSLGs), local industry, employers, iwi, and regional communities to identify skills gaps and opportunities in their regions, providing a stronger role in prioritising and coordinated investment through Economic Development Agency plans.
- We act as 'book ends' to the system by setting the expectations for industry standards and career pathways and then quality assuring the expectations have been met by providers³.

3.6 Pakihi Māori/iwi/hapū

Māori business/iwi/hapū industry

Māori have a long history in international and domestic trade and business. The Māori economy is now worth close to \$70 billion and growing⁴. Pre-COVID a total of 1,300 businesses were identified as Māori based on Statistics NZ identifiers, with another 8,800 newly identified businesses having Māori as majority shareholders. A further 14,700 were identified as Māori sole traders and 10,200 businesses were classified as significant employers of Māori.⁵

Size and scope

- Construction and professional services were the most common industry types for businesses with Māori owners.
- Turnover and employee size of Māori businesses was comparable to non-Māori.
- Māori-owned businesses employed 43 per cent Māori on average, three times the rate as for non-Māori businesses.

Margins

- Apart from one sector⁶ Māori in most sectors appeared to have much lower operating margins than non-Māori businesses in similar sectors.
- Of all the sectors, the manufacturing sector generated the most margin amongst Māori-owned businesses, however at an individual enterprise level, margins in Māori-owned manufacturing businesses were approximately 40 per cent of those of non-Māori owned businesses.

Sole traders

- The proportion of Māori sole traders compared to non-Māori sole traders was 7%.
- 8,000 of the 14,700 Māori sole traders had rental income.
- The regions with the highest proportion of sole traders with rental income were Gisborne, Tai Tokerau and Bay of Plenty.

Regions

- There were 1,363 Māori businesses in Tāmaki Makaurau.
- One in five businesses (in the identified dataset) in the Gisborne region were Māori owned.
- One in four Gisborne region businesses were significant employers of Māori.
- Construction was the dominant industry in Māori businesses across regions apart from Southland where there were more agriculture, forestry and fishing Māori-owned businesses.

For our industries, across all WDCs and the ecosystem we will be building stronger data sets over 2022/2023/2024 around Māori business. We hope this work will be in conjunction with organisations such as MBIE, Te Pūkenga, Statistics NZ and Te Puni Kōkiri. This will gain momentum from the Shared Data Project that has been funded by TEC.

From what we already know we are advocating for a RoVE-wide concerted effort to support these existing businesses as well as supporting more growth. As noted above, on average Māori businesses are significantly more likely to employ Māori, compared to non-Māori businesses. Per business, they employ three times the rate of Māori in their workforce than that for non-Māori businesses, so it is an investment that makes sense

3 Consultation of the proposals for educational reform, paper from the Minister of Education to the Chair of Cabinet

4 See: The-Maori-Economy_2.pdf (mfat.govt.nz)

5 The data defines a Māori business as either identified as Māori by Statistics New Zealand, or where more than half of wages are paid to directors, partners or shareholders of Māori ethnicity or descent. It includes regional, sector, size and profitability information as well as the proportion of Māori employed. There may be more Māori-owned businesses as majority ownership (Māori vs. non-Māori could only be confirmed for 162,200 of the total identified pool of 618,000 - another 455,000 businesses have no shareholder data to which we can link the ethnicity of the owners. See: <https://www.tpk.govt.nz/en/a-matou-mohiotanga/business-and-economics/te-matapaeroa-2019>

6 Accommodation and food services and rental hiring and real estate services



Courier services is part of the logistics industry, one of Hanga-Aro-Rau's coverage areas.

Case study: Waikato Tainui (Logistics)

Ruakura Superhub is a project of national significance to re imagine how we grow, prosper and sustain for generations to come.

The Waikato Tainui owned Ruakura is amongst New Zealand's largest developments, spanning logistics, industrial, retail and residential development areas. Located at an emerging 'sweet spot' for New Zealand's supply chain, it will be anchored by a 30 hectare inland port, with the first 17 hectare stage now in development by TGH and Port of Tauranga, in a 50/50 joint venture.

The inland port will be serviced by high capacity rail and roading infrastructure, with the East Coast main trunk rail line running along the Port's northern boundary and the new Waikato Expressway on the eastern boundary. Initially, rail services will be provided by the existing MetroPort trains running between Auckland and Tauranga.

The Ruakura precinct is estimated to accommodate 6,000 to 12,000 jobs once it is fully developed and will have significant social and economic benefits for Waikato iwi, Hamilton, the region and New Zealand as a whole. The Ruakura Superhub inland port and adjoining logistics hub is on track to open in mid 2022.

3.7 Whakapakari i ngā kaimahi Māori

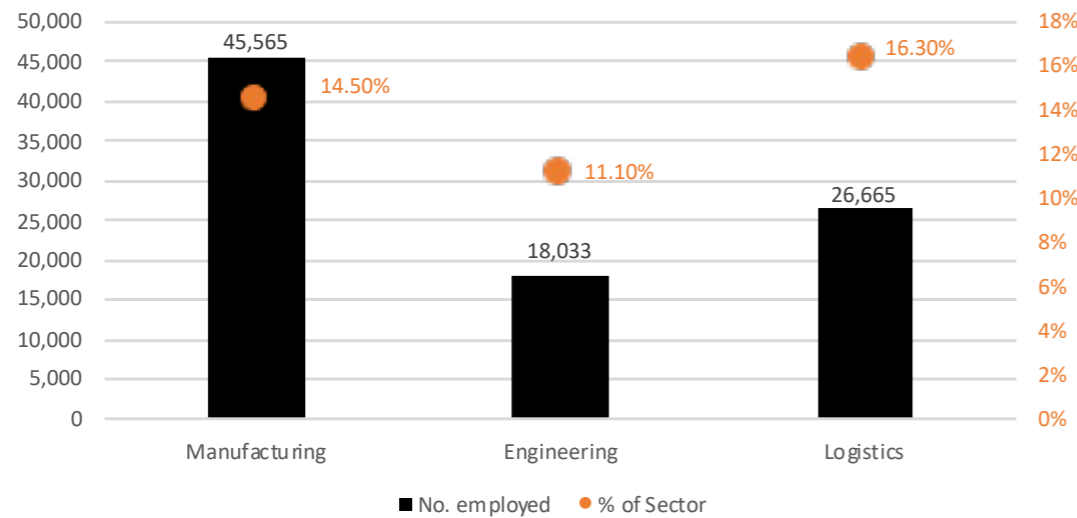
Building our Māori workforce

We all know the state of disparity between Māori and non-Māori continues. At the same time, we are in the fortunate position of having current population projections showing Māori reaching 1 million by 2033 and one in five people will be Māori by 2043. Therefore, it is evident that Māori need to be a large part of our skills and workforce planning and development.

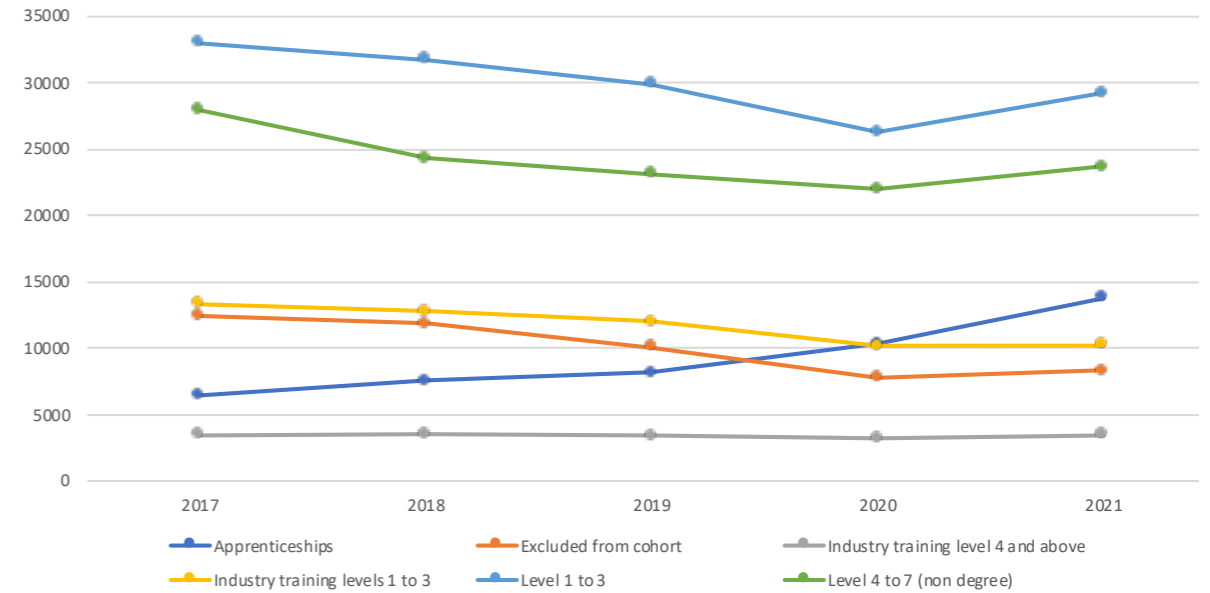
Given the regional spread of our industries, it is also essential we understand where our Māori hapori are. We have undertaken in-depth analysis of the official statistics available to us (via Infometrics and Ngā Kete) as well as validated insights with our Māori engagement. While we know that more in-depth research is needed in 2022/23 (and we have stipulated this in our Operational Plan), below are some key insights, with supporting graphics:

- The Auckland Region accounts for 22 per cent of Māori employment
- The North Island accounts for 82 per cent of Māori employment
- Manufacturing has approximately 46,000 Māori employed, the highest of our three sectors.
- Logistics has the highest proportion of its workforce identifying as Māori (17 per cent)
- Meat manufacturing, road transport and postal, courier and warehousing account for a third of Māori employment
- Labourers and professionals are the largest occupational groupings for Māori
- Certificates at levels 1-3 are the predominant highest qualification for Māori
- Learner enrolments declined between 2017 and 2020 but lifted in 2021
- All qualification levels saw an increase in enrolments in 2021; apprenticeships had the largest increase.
- The proportion of Māori completing their provider-based qualifications grew from 55 per cent in 2016 to 59 per cent in 2020.
- The proportion of Māori completing industry-based programmes has been flat, around 62 per cent in 2019/2020 and is lower than comparative ethnicity groupings.
- The proportion of Māori in skilled occupations grew by 4 per cent to 57 per cent over the past three years but remains below all other ethnicities (68.4 per cent). More Māori were employed in low skilled (27 per cent) than unskilled (17 per cent) occupations, but they remain lower when compared to all workers in our sectors (20 per cent and 12 per cent respectively).

Māori employment 2018
Hanga-Aro-Rau sectors

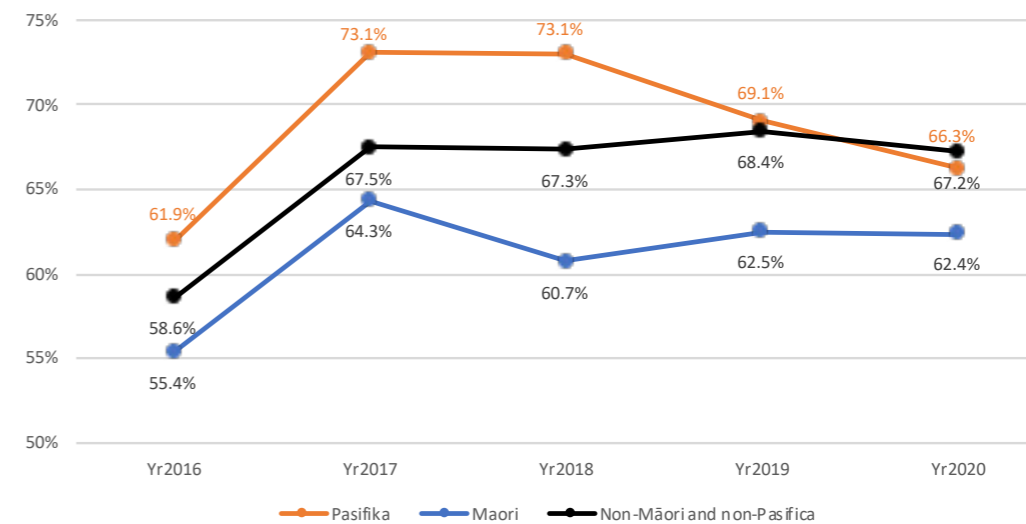


Maori Enrolments by cohort group by year



Data Source: Nga Kete Regional Education Profile, Enrolments over time 28.2.2022

Industry Training Programme Completion rates by ethnicity



Data Source: Nga Kete, Tertiary Performance, ITR, Programme completion by learner demographics over time 28.2.2022

As we have already noted we see need for new narratives signalled by TEC and WDCs in the Investment Plan guidance and that will include how investment needs to support building our Māori and Pacific peoples' workforce.

3.8 Ngā hononga ā Te Tiriti – Māori me te karauna

Te Tiriti o Waitangi and Māori-Crown relations

We are focused on ensuring our functions are delivered in a manner that contributes to an education system that honours Te Tiriti o Waitangi and supports Māori-Crown relations. Our engagement with hapū/iwi industry and employers is ongoing. For this advice we have had regard to the needs of Māori through a range of direct engagement as well as reliance upon existing Māori voice that has already given direction especially in relation to their expectations for RoVE and the functional parts (such as Workforce Development Councils).

Accordingly, we directly referenced⁷ such voices as the:

- Ngāi Tahu Perspective on the Reform of Vocational Education (March 2019)
- Tertiary Education Union submission on RoVE (5 April 2019)
- Tai Tokerau District Māori Council (New Zealand Māori Council endorsed) submission on RoVE (April 2019)
- RoVE Technical Workshop (The Tauranga Yacht Club Wānanga) (28 May 2019, TEC)

There are also pieces of TEC and Ministry of Education (MOE) strategy that are included in our Order in Council that we take as being based on engagement with Māori so can therefore provide guidance. This includes the Tertiary Education Strategy⁸ and Ka Hikitia (the Māori Education Strategy).⁹

Finally, we have had the benefit of learning more from the strong Māori voices that exist on many of the RSLGs and from provider-held regional iwi and hapū relationships such as those that sit with Te Pūkenga via their subsidiary network.

All of us within RoVE and the wider ecosystem have the opportunity (and responsibility) to collectivise as much as possible our engagement with iwi, hapū, Māori. Māori are looking for us to deliver a transformed system that creates equitable outcomes. They are also looking to us to generate possible actions based on what they have told us that can be tested against their thinking and objectives. Always remembering that they are forging their own direction and it is for us to support and partner based on the relationships anticipated by Te Tiriti. All the RoVE partners should be collectively engaging where possible with iwi/hapū/Māori. This helps avoid engagement fatigue and creates efficiencies in approach.

Cultural capability

Te Arawhiti gives clear guidance around how, as service agencies, we all need to have sufficient capability and capacity to properly engage with our Te Tiriti partners and support learner success. Building cultural competency is a key priority across all Workforce Development Councils and we also recognise efforts being made across government agencies, RSLGs and providers to improve their own internal capability to embed te ao Māori, te reo and Te Tiriti o Waitangi authentically in our support of learners, their whānau, employers, and industry. In increasing our capability, we encourage those externally that connect with us to do the same.

We expect investment in resource, support and training for cultural capability, diversity, and equity to increase. Improving awareness, understanding and how individuals and organisations can take it upon themselves to be better educated and informed will be critical to impactful change in honouring Te Tiriti o Waitangi, as well as creating positive experiences for all those that fuel our economy and industries now and for generations to come.

To build sufficient capacity and capability will take innovation and it will involve consideration of how the three Wānanga, organisations such as Ako Aotearoa and iwi/hapū, can provide support for immediate specialised capacity and supporting longer-term capability building across all staff.

⁷ See Bibliography for fuller list

⁸ The Statement of National Education and Learning Priorities (NELP) and the Tertiary Education Strategy (TES) – Education in New Zealand

⁹ Ka Hikitia – Ka Hāpaitia – Education in New Zealand



Hanga-Aro-Rāu is the Workforce Development Council for the manufacturing industry.

Recommendation and advice: Rua

Given that Māori businesses are three times more likely to employ Māori than non-Māori businesses, they are a key employer group for Te Pūkenga and other providers to focus on to help grow Māori engagement and success in vocational education and participation in Hanga-Aro-Rau workforces.

We recommend that Te Pūkenga and other providers focus their attention on growing engagement with Māori businesses to grow the future workforces for manufacturing, engineering, and logistics. This will have the long-term benefit of developing the future workforce now.

A large proportion of non-Māori (or 'mainstream') businesses employ larger proportions of Māori, we believe that these businesses will be influential in effecting change for Māori. Hanga-Aro-Rau will continue its focus on engaging with Māori businesses, as well as mainstream employers that employ Māori to ensure the vocational education system meets their needs. This will be researched and tested in 2022/23 and if proven correct, further advice and guidance issued.

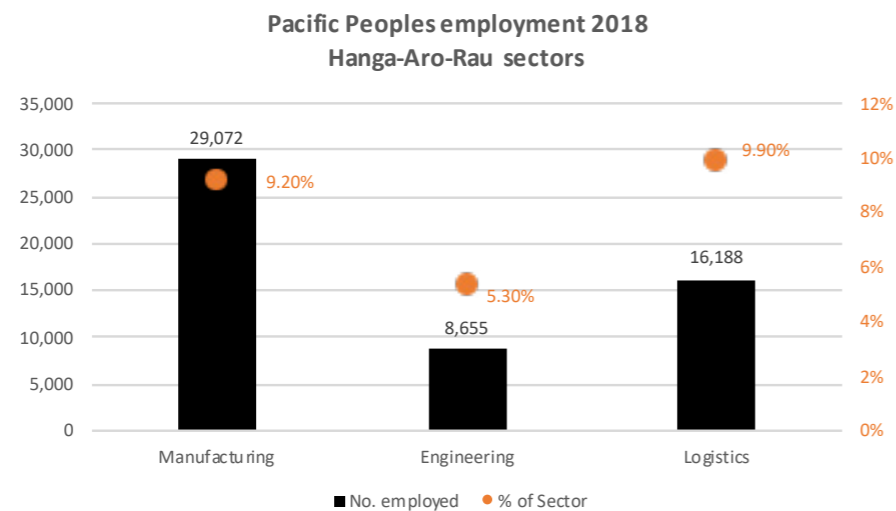
3.9 Kaupapa matua mō ngā iwi o Te Moana-nui-ā-Kiwa Pacific peoples' priorities

In March 2022, we completed a deep dive 'desktop' analysis of the representation of Pacific peoples in our industries. Statistics revealed that there are approximately 45,000 (8 per cent) Pacific peoples employed in Hanga-Aro-Rau sectors, with the majority employed in manufacturing industries (typically concentrated in South Auckland).

The majority of Pacific peoples employed in our sectors are classified as labourers, with a very small proportion represented in higher-skilled roles. In addition, and as is well documented in the RoVE literature as well as insights from Te Pūkenga's Te Rito report, Pacific peoples' learners tend to have lower qualification completion rates compared to Māori, non-Māori, and Non-Pacific peoples.¹⁰

In general, Pacific peoples' populations are younger, and on a strong growth trajectory.

Infometrics,¹¹ our economics partner, projects that New Zealand's Pacific peoples' population will reach half a million by 2028. This population is essential for our industries' succession and sustainability – our calculations suggest that there will be 3,000 new (or replacement) job openings per year to 2026, based on the current Pacific peoples' workforce and anticipated population growth. Most of this growth is expected to be in our manufacturing sectors.



Therefore, it is critical that we investigate further:

- How Pacific peoples are currently supported in manufacturing workplaces (including attraction, retention, career progression).
- How employers across all Hanga-Aro-Rau sectors can attract and support more Pacific peoples into their businesses as a mechanism to address commonly known skills gaps, as well as workforce succession.
- What needs to be done differently to support Pacific peoples' educational achievement to ensure success and increased social mobility.

There are a few limitations to the current data, including the reliance on Census data and data equity whereby detailed insights are often not possible due to limitations to its collection and how it is analysed. Some of these limitations will be addressed through COVID-19 recovery projects, but we also anticipate Hanga-Aro-Rau will need to undertake further research in 2022/23. This is outlined in our Operational Plan for 2022/23.

We are not able to provide TEC with specific advice in support of Pacific peoples. Our future advice of Pacific peoples will increasingly be founded on greater understanding and partnering with our Pacific communities. The TEC COVID-19 project focuses on the manufacturing and engineering industries specifically focusing on barriers to Pacific peoples (as well as other traditionally underserved groups) in upskilling and cross skilling. Leveraging off existing research, we will look to understand early how Pacific peoples are impacted to gain insights and develop tools to support employers in their support of their diverse workforce.

¹⁰ Data Source: Nga Kete, Tertiary Performance SDR, Qualification completion by learner demographics over time 28.2.2022

¹¹ Data source: Infometrics, 2022 (based on 2018 Census data)

3.10 Kaupapa matua mō ngā iwi hauā Disability priorities

There is limited data available for our own industries. We will be investigating these priorities as part of our COVID-19 response project and broader 2022/23 Operational Plan.

What we do know is:

- Disabled people are less likely to be employed than the general population or other minorities.
- Employment for disabled people is often limited by opportunity and people's attitudes rather than disability.
- Although one in five working age people in New Zealand have some form of disability, most have little or no barrier to working in some kind of paid employment given the right support.
- Many highly capable New Zealanders could be part of the workforce if barriers to their employment were removed.¹²

So, with that we will build with these communities and other organisations strategy and actions that will support change. Supporting that will be both a full-time advisor for WDCs as well as a disability advocacy/reference group formed in the next few months.

3.11 Kaupapa matua mō ngā iwi whakaaro-rau-ā-io Neurodiverse priorities

Similarly, we acknowledge there is work around data and strategy here and we will be investigating these priorities as part of our COVID-19 response project and broader 2022/23 Operational Plan.

3.12 Kaupapa matua mō ngā ākongā Learner priorities

For the purpose of this advice, we have not specifically focussed on learners and their whānau priorities. We are aware of, and acknowledge, the strong mahi and research that Te Pūkenga (especially Te Rito and the learner profiles) and Ako Aotearoa have completed. Over the next few months, we will listen to learner voices being expressed across the RoVE partners and will test our approaches and advice accordingly.

¹² Data source: Infometrics, 2022 (based on 2018 Census data)

4 Kaupapa matua-ā-rohe, ā-motu hoki mō te mātauranga ahumahinga

Regional and national skill priorities for vocational education

In early 2022, Hanga-Aro-Rau undertook an intensive engagement project targeting MBIE Leads from all Regional Skills Leadership Groups (RSLGs) to build relationships that will enable ongoing collaboration across areas of mutual priority.

Key to this project has been gaining an understanding of regional priorities for the 2022 Regional Workforce Plans to allow the relevant priorities to be reflected in Hanga-Aro-Rau's Skills and Workforce Leadership Plan. We also took this opportunity to share our own insights from industry engagement across the motu as well as advocate for our industries to feature in future initiatives led by RSLGs.

This engagement has identified opportunities for further collaboration and partnership during 2022/23 and beyond, acknowledging the rich membership of Te Tiriti partners, Māori, iwi, hapū and whānau in the RSLGs, as well as industry and business leaders.

Hanga-Aro-Rau's ability to understand the regional perspective against what we know nationally will support how we focus our priorities for the next two years. We intend to build on this work to develop on-going working relationships with RSLGs to support information sharing to inform advice, and collaboration.

Below is a map of Aotearoa New Zealand that shows the current regional priorities of each RSLG. In addition, the colour of each region corresponds to the proportion of total regional employment that manufacturing, engineering, and logistics combined contribute to each region.

In addition to the priorities identified in the map, RSLGs have identified several cross-cutting themes, and priority population groups that have been highlighted for action in 2022.

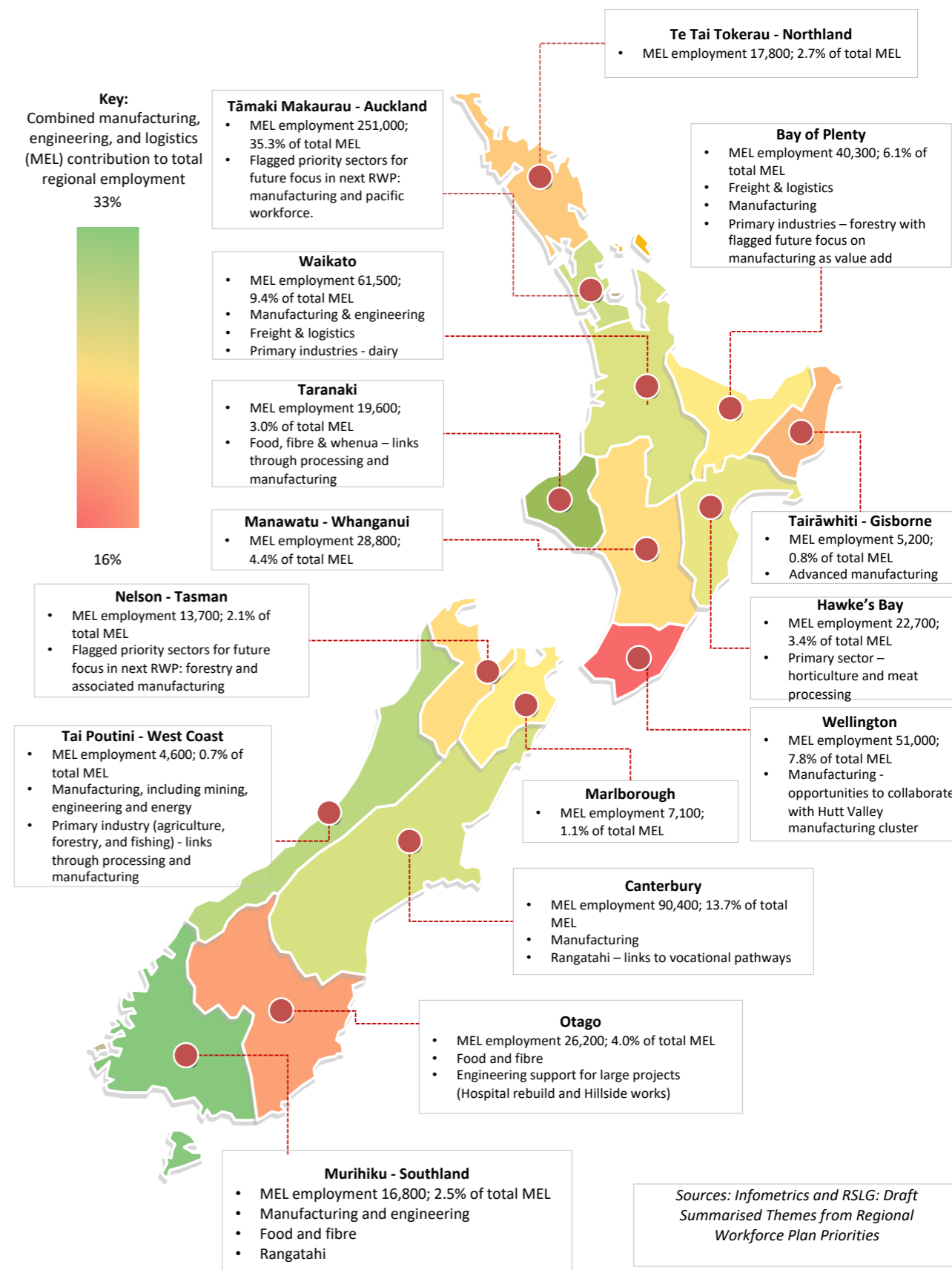
RSLG cross-cutting themes include:

- Addressing structural (and other) barriers to accessing education and training
- Sustainable, decent, and rewarding employment
- Work readiness and pastoral support for those transitioning into work
- Worker mobility
- Workforce resilience – to enable labour market participants to positively respond to environment, technological, social, and economic changes
- Youth transitions from school through to training at work and/or tertiary study and into employment.

RSLG priority population groups are very similar to Hanga-Aro-Rau's areas of focus as outlined in Section 4, and include:

- Māori workforce – including wāhine in the workforce
- Older workers
- Pacific workforce
- Disabled people and people with health conditions
- Rangatahi – including those Not in Employment or Education or Training (NEETs)
- Women.

Regional Skills Leadership Group (RSLG) priorities for 2022 in relation to Hanga-Aro-Rau sectors



5 He whakaaro mō te toha pūtea

Advice on mix of investment

Hanga-Aro-Rau is still gathering evidence to inform guidance on the advice of mix of investment. However, through our engagement with industry and research conducted thus far, themes are beginning to emerge which at a high-level can inform the Supplementary Plan Guidance.

5.1 Kaupapa matua mō Hanga-Aro-Rau

Hanga-Aro-Rau sector priorities

The priorities provided through the Industry Transformation Plan, MITO Workforce Development Strategies, extant research, and our developing knowledge and understanding, specifically through our work with Māori businesses and RSLGs suggest the mix of provision for TEOs should include consideration of the following to address the concerns of our industries.

COVID impact

Addressing COVID-specific impacts on industry and employers. COVID has hit each of our sectors in a multiple ways, including supply chain issues, causing employers to go out of business, imported skills no longer available, illness dropping production, isolations of part or all of the workforce disrupting production, health and wellbeing issues related to an isolated workforce, facing macro issues of higher food and fuel prices, children being home schooled, extended family impacted through the inability to connect with them the way they normally would due to COVID restrictions.

The mix of provision needs to allow for pathways of training, the ability to transfer skills to allow workers to move between sectors and careers and redeploy staff.

Aging workforce

As mentioned earlier in the document, the aging workforce has been a dominant area of focus for all our sectors for some time. Succession challenges due to retiring, or not retiring (due to the macro situation evolving from the pandemic) and being challenged by new ways of working and new technologies are issues Hanga-Aro-Rau is further investing in 2022/23 (as outlined in our Operational Plan).

Formally credentialling the current workforce, including the older population that traditionally does not hold nationally recognised qualifications, is essential to support workforce development as industries adapt to respond to the future of work. Recognition of current experience and competence is critical to enable further reskilling or upskilling (especially if that upskilling is via tools such as micro-credentials that might target specific capability development, but implicitly rely on previous knowledge and experience).

Skills shortages

All sectors have been challenged with skills shortages, and this was exacerbated by the COVID-19 challenges and border closures. In addition, the tight labour market has made competition for talent strong, and to be viable our industries need to work even harder and more strategically to attract and retain talent.

In addition, we know that future workforces are more diverse and comprise groups that have been traditionally underserved. A key priority in addressing skills shortages will be through improving the employment and social mobility outcomes for Māori and Pacific peoples. The mix of provision needs to provide demonstrable links to enhancing this through the provision of transferable skills, short courses for employers to raise awareness and clearer and relevant career and education pathways.

Delivery and training models

While we acknowledge that a large amount of training for the majority of our sectors is delivered on the job, more can be done to better meet and anticipate employer and industry needs as they relate to the future of work.

Examples that can create meaningful, and relatively immediate impact, include:

- Creating flexible learning opportunities that move learners into work-integrated learning earlier and supporting employers to support their employees
- Developing stackable micro-credentials that allow learners to gain new skills quickly gaining success through quick bites of learning that increases productivity for employers early, upskills employees and counts towards an industry valued qualification over time.
- Targeted redeployment and transferable skill mapping to support the businesses working through fluctuating supply and demand market issues for staff and product.

5.2 Kaupapa tūāpapa ā ngā Ohu Ahumahi

Overarching priorities from WDCs

The Reform of Vocational Education has clear goals set by government and upheld by industry. Industry is keen to see transformational change, and funding of providers under the Unified Funding System that, in its first year of operation, lays down new tracks. Unless there are fundamental changes to the way in which the sector works together in a collaborative manner to address current and emerging workforce development challenges, it is unlikely that the sector's short comings will be addressed by the reforms.

With this in mind, Hanga-Aro-Rau is closely collaborating with all Workforce Development Councils to ensure everything we do will pave the way for transformational change to Aotearoa New Zealand's vocational education system as well as the current and future workforces of our industries.

Critical areas of focus for the ecosystem are to:

- Remove the barriers to accessing quality vocational education that is relevant to industry and employers
- Provide industry and iwi/hapū a voice to influence the workforce development pipeline
- Have more on-the-job learning and less off-site learning
- Improve equity of outcomes in vocational education provision
- Ensure evidence and analysis underpin provision in vocational education

To do this, we will all operate along the following principles:

- Collaboration is the norm – the whole RoVE ecosystem works together for the benefit of our industries and their current and future workforces (including ākongā).
- Industry and iwi/hapū oversight of the entire workforce development pipeline and we should see their voice reflected in the vocational education ecosystem's priorities
- Work-integrated learning is actively encouraged, with the appropriate support mechanisms provided to employers to enable this to occur. This is not to say that provision is removed from campus-based learning where a valued need is being met, but that all programmes take a proactive view to better integrate work-integrated learning.
- Equity of outcomes are improved for all, and specifically for diverse (women, disabled, older) and traditionally underserved (Māori and Pacific peoples) groups.
- Evidence, through research, engagement, and collaboration, underpins all that the RoVE ecosystem does.

6 He whakaaro mō ngā kaituku-mātauranga

Advice to specific TEOs

Providers are an essential component in ensuring industry and employers can realise their workforce development goals. Defined occupational skill sets are becoming more obscured as transferable skills are being sought by employers and employees alike. As COVID places more demands on workplaces to keep operating with a diminished workforce there is scope to allow for recognition of those skills. These could eventually become a qualification or stand alone for the benefit of the employee as they move through their career.

Creating better career paths from foundation through to post graduate study (including provision at university level) with multiple exit points allows employees to 'dip' in and out of lifelong learning as they move along their career trajectory or change careers. Smaller chunks of learning will allow opportunities for businesses to increase employee skills and for employees to gain skills and experience success. In time they will increase their pay and on the back of their success encourage their whānau into learning and earning.

6.1 Ō mātou hoa kaituku-mātauranga

Our provider partners

We are currently working with 92 tertiary education providers and 75 high schools. Our provider partners are spread from the Far North of Tai Tokerau to Southland. The full list of our provider partners is supplied as Appendix 2.

While this document specifically relates to TEO advice, a future focus for Hanga-Aro-Rau will be schools and their role in connecting with the vocational education system.

6.2 Te Pūkenga

Much of Hanga-Aro-Rau's provision (approx. 82 per cent) is delivered by Te Pūkenga subsidiaries both in the workplace through Work Based Learning Limited and via the ITP subsidiary network. We, and our industries, have a vested interest in Te Pūkenga's programme consolidation and transformation project, as we believe this will make an immediate and tangible difference to attracting and securing future pipelines for our industries to address skills shortages and prepare or adapt to the future of work.

We understand that this piece of work will extend out until 2029 and we expect (and strongly encourage) that much of the efforts of Te Pūkenga in 2023 will be to consolidate their programmes. In our view, priority programmes for consolidation are those in the pre-employment or pre-trade space (for example mechanical engineering, fabrication and automotive engineering).



Engineering is one of the industries under Hanga-Aro-Rau's remit.

Recommendation and advice: Toru

We support the focus of Te Pūkenga on programme consolidation; this is especially important for employers in ensuring that their graduates (and future staff) or current staff are reaching a consistent level of competency that aligns with industry requirements and priorities. Clear entry-level vocational pathways are essential for developing a pipeline of future employees.

Therefore, we recommend that programme consolidation is prioritised, especially in the pre-employment and pre-trade space.

Attracting staff (and ensuring a sustainable pipeline of new staff) is a clear priority for all our sectors and sound, industry endorsed and consistent pre-employment, and pre-trade offerings by the Te Pūkenga network that are endorsed by Workforce Development Councils.

Hanga-Aro-Rau's mechanical engineering, fabrication and automotive engineering sectors are supported by a myriad of pre-trade programmes delivered by almost all the ITP subsidiary network. There is a priority opportunity to work to consolidate these programmes to ensure pathways (and content) are clear and endorsed by industry.

The benefits will be multiple, but most critically for the ākonga/tauirā who will gain exposure to relevant skills and pathway more effectively into sustainable employment and apprenticeships.

6.3 He kaituku-mātauranga anō

Other providers

There are other providers of training for our sectors, most notably PTEs and schools. While this provision is small in comparison to Te Pūkenga, it is significant especially to some of the smaller and niche industries that we support.

We encourage TEC to again consider the priorities and opportunities for innovation and recommendation for project-based funding to support immediate innovation and impact when allocating funding to this sector (refer to Recommendation and advice: One). Often, PTEs are much more responsive to funding signals and will be more innovative, flexible, and targeted in their approaches.

Recommendation and advice: Whā

(Strong link to Recommendation and advice: Tahī)

Providers other than Te Pūkenga, will likely not be going on the same integration and operational journey over the coming months/years. Therefore, PTEs may have a nimbler role to play in enabling immediate innovation to vocational education provision.

Hanga-Aro-Rau will support providers that can demonstrably deliver quality and equitable outcomes for learners that align with industry needs. We know there are gaps in hi-tech provision and access to equipment, so providers that can provide this access through leveraging employers and/or learning technologies should be considered for funding.

Like recommendation tahi for more immediate project-based investment, the above initiatives could also be contenders for that sort of investment/funding.

As outlined, Hanga-Aro-Rau would work with TEC to develop the assessment criteria and provide endorsement on any applications made by a provider.

7 He whakaaro anō

Other advice which could inform investment

7.1 Kei tua o te mate-karauna

Post COVID-19 project

We are benefiting from the Tertiary Education Commission's COVID-19 Response Projects Fund. This pūtea will allow us to fund research into how vocational education and training can help our vital, COVID-19 hard-hit manufacturing and engineering sectors to:

- maintain their current workforce
- retrain and upskill to ensure workforces are future-proofed for a changing post-COVID environment, especially as access to skilled migrants will be limited.

We are proud to be partnering with Ngāi Tahu, manufacturing and engineering employers, industry associations, and chambers of commerce on this mahi. Using an inclusive, mana taurite approach ensuring equity and reciprocity, the research hypothesis, methodology, results, and strategy will be designed in true partnership. Frequent evaluation and review opportunities will allow the direction of the project to be adjusted where aspirations of Māori and those traditionally underserved by the system would benefit.

The project will provide tangible and iterative benefits to industry and iwi in small bursts as it progresses. We expect the project to be completed by the end of 2022, informing a comprehensive action plan and investment advice for 2023/24.

It is expected that this project will highlight key strategic component funding opportunities that will align directly with the Tertiary Education Strategy, Ka Hikitia, and the Pacific Action Plan 2030. We are partnering with providers throughout the project and will look to them to support vocational education provision solutions that arise from the research. We recommend TEC's position be flexible enough to allow for agile and impactful vocational education solution/s.

8 Te waihanga me te tiaki i ngā akoranga ahumahinga

Vocational programme development and maintenance

Information gathered to support priorities for new programme development and programme redevelopment is generally aligned to Hanga-Aro-Rau's development work programme for qualifications, credentials, and standards development. This work programme is largely based on priorities set by expiration and maintenance. Over time, we expect that this will change as we evolve in our understanding of future industry needs.

At the time of writing this advice, we do not have specific programme development and maintenance initiatives that would be considered outside 'business as usual' activity for providers.

Recommendation and advice: Rima

Programme development maintenance needs to be prioritised and is linked to the qualification review cycle. Providers are key stakeholder of qualification reviews to enable co-design of programmes.

Where there are known challenges with programmes that are impacting on industry success, we encourage that they are prioritised for additional investment. These programmes may meet one or more of the following:

- Learner achievement is poor, inequitable, or declining
- Industry has formally raised disaffection
- Consistently poor moderation outcomes or non-compliance by the provider

COVID impact has resulted in a more urgent need to review the programme out of the qualification development cycle.

8.1 Te mahi whakaōrite hei whakapiki i te kounga

Moderation as a continuous improvement tool

Hanga-Aro-Rau will use moderation as a tool to provide quantitative data that informs where Hanga-Aro-Rau quality assurance activity should be focused. Hanga-Aro-Rau will take a consultative and continuous improvement approach to moderation to enable providers to focus on how to elevate performance and strengthen learning outcomes for all, especially those traditionally underserved. Providers will receive transparency in our approach and what is expected from them. The principles Hanga-Aro-Rau quality assurance will operate under will be to collaborate in partnership with providers, be consultative in all interactions and provide transparency to our intent.

Moderation activities will aim to identify issues with assessment practices early and take action to help the provider resolve those issues before learners are impacted. A key outcome of the moderation activity will be to ensure assessment design does not present barriers to learner success, especially those traditionally underserved. The focus of post-moderation will be on continuously improving assessment activities.

9 Ēnei whakaaro me ō mātou haepapa

Āta Huritao: this advice and our duties

This advice delivers on one of our functions and it is important that we apply our duties to such functions. To support us to do that we have developed Āta Huritao (working draft)¹³. Similar to Te Pae Tawhiti¹⁴ which Te Pūkenga uses for their pursuance of Te Tiriti Excellence we have extended ours to connect with all our duties. With this self-reflective tool and its operational questions, we explore within these key documents whether and to what extent we are delivering on our duties.

Outcomes	Draft reflective practice questions
Outcome 1 Strong industry voice	<ul style="list-style-type: none"> • How does this facilitate the voices of our industries of manufacturing, engineering and logistics? • Does it do this in a way that helps our industries contribute to the creation of a sustainable, globally engaged, and adaptive New Zealand?
Outcome 2 Connected education system	<ul style="list-style-type: none"> • How does this support the provision for all people in our industries to reach their full potential and capabilities? • Does this have a specific focus on those traditionally underserved by the education system?
Outcome 3 Fair/equitable	<ul style="list-style-type: none"> • How does this help ensure fair and equitable outcomes for all people in our industries?
Outcome 4 Honours Te Tiriti o Waitangi	<ul style="list-style-type: none"> • In what ways does this contribute to an education system that honours Te Tiriti o Waitangi? • How does it support Māori-Crown relations?
Outcome 5 Working with Stakeholders	<ul style="list-style-type: none"> • How have you sought to work with learners, industry (including, but not limited to, employers, employees, self-employed people, volunteers, industry associations, and unions), tāngata whenua, stakeholders, and the other Workforce Development Councils and other organisations to deliver the outcomes that the Council seeks? • In what way does this support the responses to New Zealand's current and future workforce needs, taking into account: <ol style="list-style-type: none"> i. new global challenges; and ii. emerging technologies; and iii. global sustainability goals; and iv. the changing nature of work; and v. the skills, knowledge, and qualifications learners will need in future to achieve success for themselves and their communities; and vi. the transition to a low-emissions and climate-resilient New Zealand
Outcome 6 Contributes to the reform and education strategies	<ul style="list-style-type: none"> • How does this give effect to: <ul style="list-style-type: none"> - the relevant parts of the tertiary education strategy; and - Ka Hikitia-Ka Hāpaitia; and - the Action Plan for Pacific Education 2020-2030 • In completing this how have you had regard to the needs of Māori and other population groups identified in the tertiary education strategy? • Has there been any consultation with the persons or bodies it considers, on reasonable grounds, represent the interests of Māori and those population groups?
Outcome 7 Advocates for our industries	<ul style="list-style-type: none"> • Does this help advocate for our industries and promote career opportunities within our industries with the aim of achieving a balance in the supply and demand for skilled employees? • Does this include research that supports our functions? • Does this promote opportunities for all people to reach their full potential and capabilities by supporting quality vocational education and training outcomes? • How does this address the needs and aspirations of priority learners in our industries, including Pacific learners and people with disabilities?

¹³ Self reflective tool

¹⁴ See: Te Pae Tawhiti including annual report (2021/2022, Te Pūkenga)

10 Kuputaka

Glossary

GDP	Gross Domestic Product
MITO	Motor Industry Training Organisation
MOE	Ministry of Education
MBIE	Ministry of Business, Innovation and Employment
MFAT	Ministry of Foreign Affairs and Trade
Ohu Mahi	Workforce Development Councils
PTE	Private Training Establishment
RoVE	Reform of Vocational Education
RSLGs	Regional Skills Leadership Groups
STEM	Science, Technology, Engineering, Mathematics
TEC	Tertiary Education Commission
Te Pae Tawhiti	Te Pūkenga Treaty Excellence Framework
TEOs	Tertiary Education Organisations
TES	Tertiary Education Strategy
TEU	Tertiary Education Union
TPK	Te Puni Kokiri
WDCs	Workforce Development Councils

11 Kohinga kōrero

References

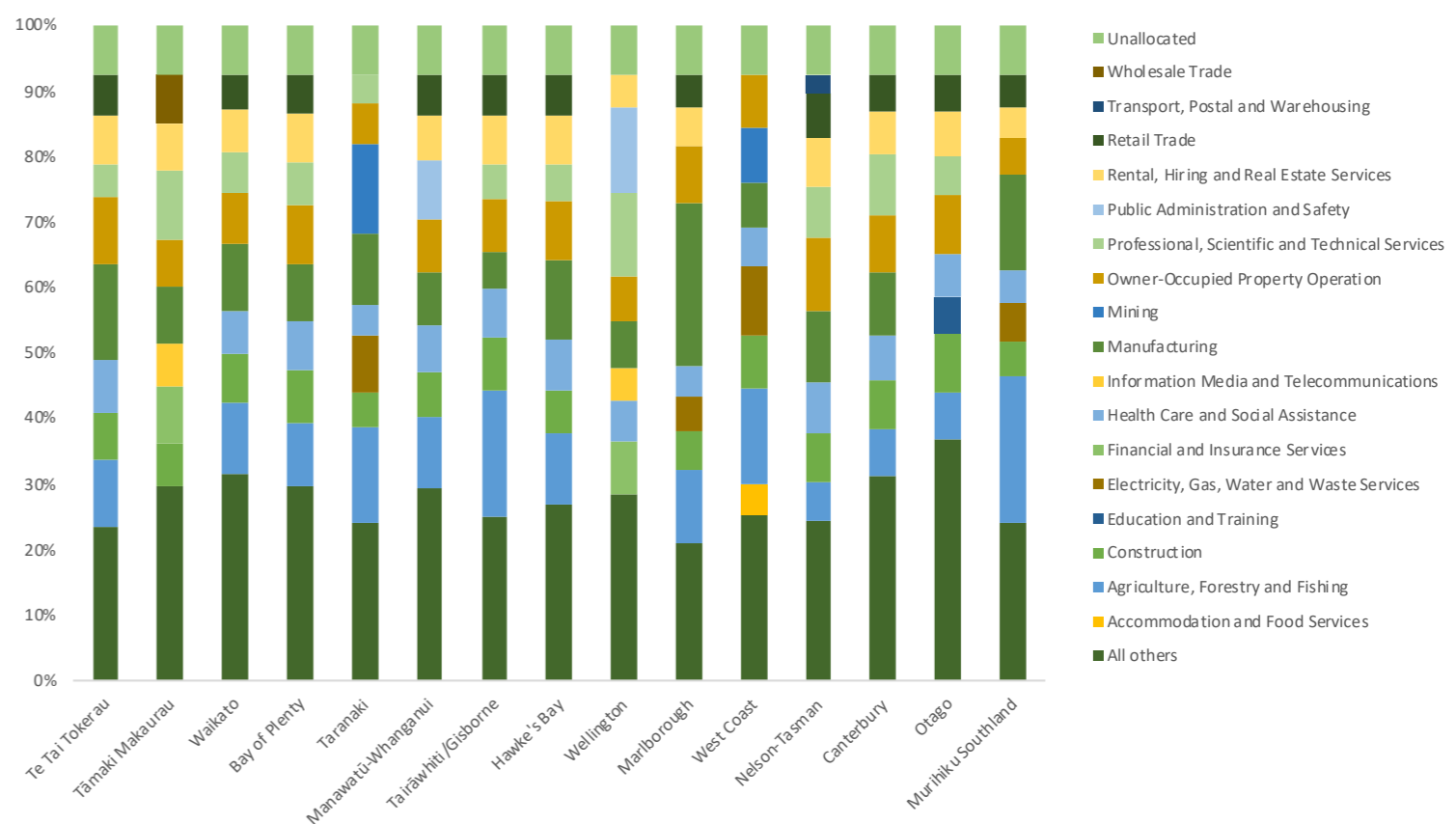
Āta Huritao- Hanga-Aro-Rau self-reflective duties and functions tool (2022)
 Establishment Unit materials (2021)
 Hanga-Aro-Rau Cultural Capability Roadmap
 Hanga-Aro-Rau Rangatiratanga Strategy
 He Whakaputanga o te Rangatiratanga o Nu Tirene (1835)
 ITP Roadmap 2020: What we heard from the sector and its stakeholders (TEC)
 MBIE-Advanced Manufacturing Industry Transformation Plan
 Ministry of Education-Tertiary Education Strategy
 Ngāi Tahu Perspective on the Reform of Vocational Education (March 2019)
 RoVE Technical Workshop (The Tauranga Yacht Club Wānanga) (28 May 2019, TEC)
 TEC- Ka Hikitia
 Te Arawhiti Guides
 Te Pae Tawhiti including annual report (2021/2022, Te Pūkenga)
 Te Puni Kokiri- Te Matapaeroa 2019 looking toward the horizon-Some insights into Māori in business
 Te Rito Research (2021, Te Pūkenga)
 Te Tiriti o Waitangi (1840)
 Tertiary Education Union submission on RoVE (5 April 2019)
 TTDMC (New Zealand Māori Council endorsed) submission on RoVE (April 2019)

Tāpiritanga tahi | Appendix one



Regional Data – Source: Infometrics

Proportion of GDP by ANZIC 1-digit industry, 2021

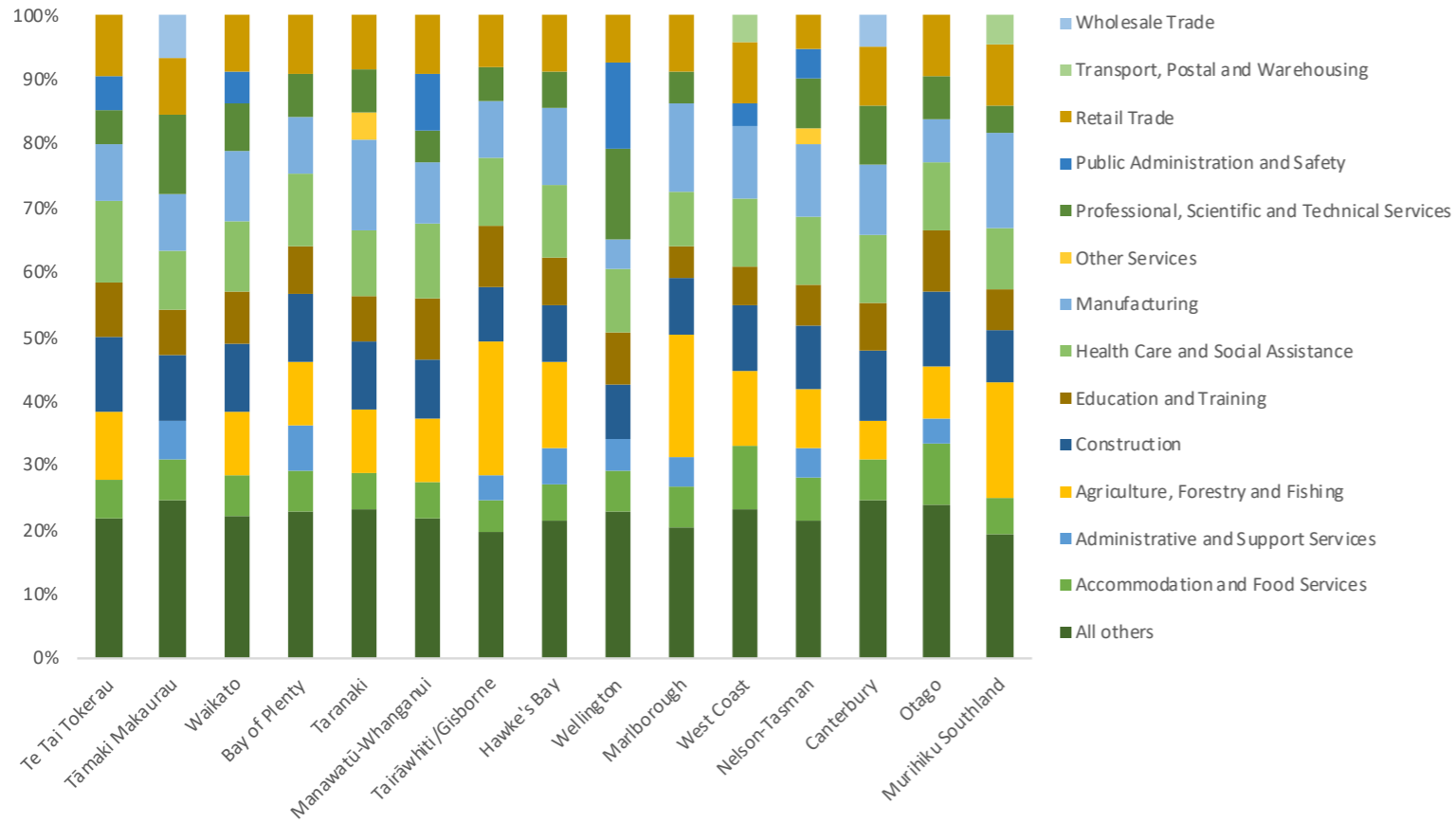


Included in Hanga-Aro-Rau's gazetted coverage is rail passenger transport.

Tāpiritanga tahi | Appendix one

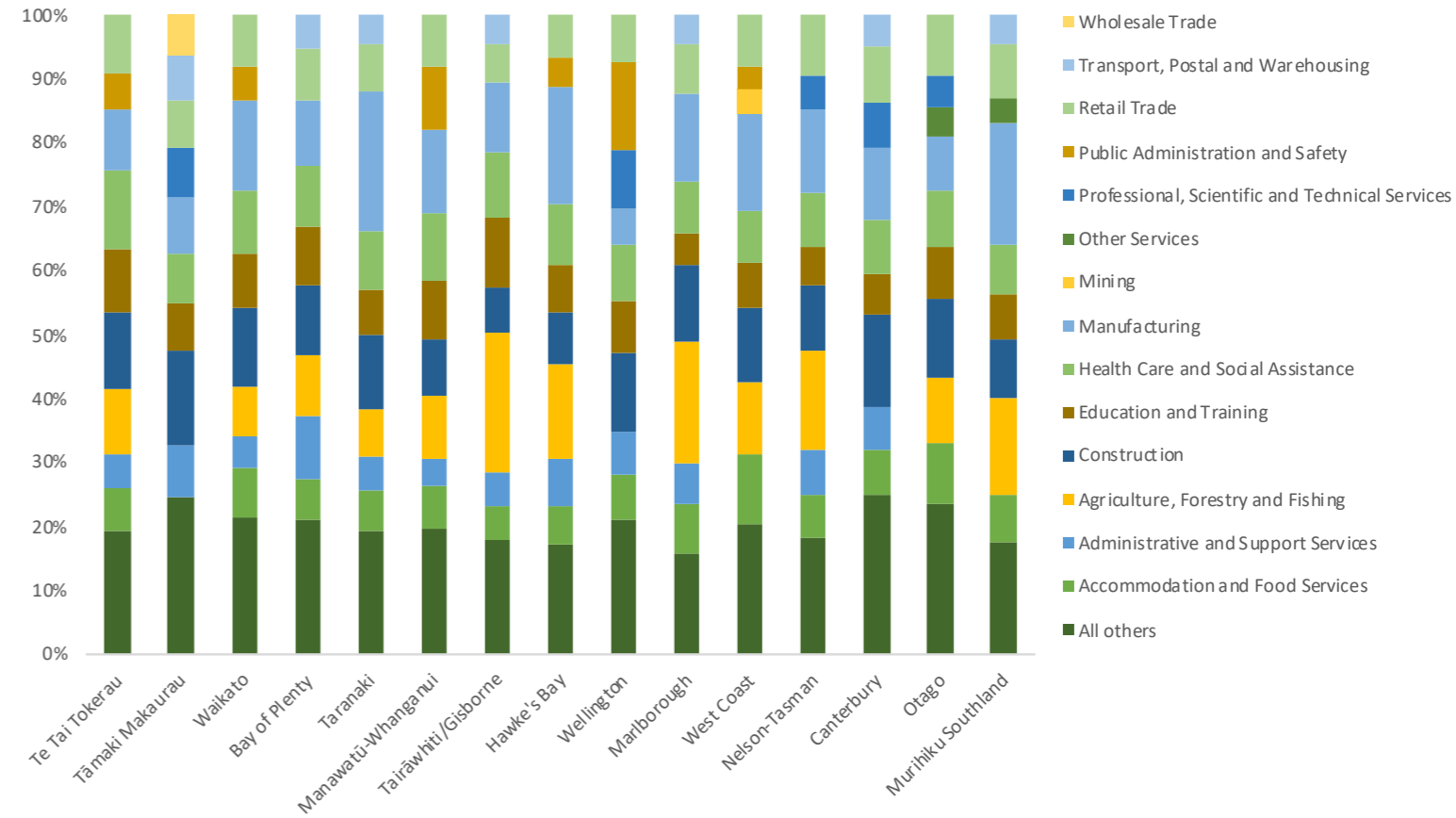
Regional Data – Source: Infometrics

Proportion of filled jobs by ANZIC 1-digit industry, 2021



Regional Data – Source: Infometrics

Māori contribution to employment by ANZIC 1-digit industry, 2021



Tāpiritanga rua | Appendix two

Hanga-Aro-Rau provider partners list

Tertiary

ACT Safety Limited
 Activate Training Centre Limited
 Alpha Training and Development Centre
 AMS Group Limited
 Ara Institute of Canterbury Ltd
 AsureQuality Limited
 Avon City Motors Limited
 Bakels Training Organisation
 Besafe Training Limited
 BMINZ Limited
 Building and Construction Industry Training Organisation
 Burwater Pacific
 C Hayes Engineering Training Division
 Chivalry Training Providers Limited
 Coastguard Boating Education
 Competenz
 Competenz - Communications and Media
 Connexis Infrastructure ITO
 Eastern Institute of Technology Ltd
 EmployNZ Limited
 Endeavour Technical Training
 Fairview Educational Services Limited
 Fire and Safety Training Limited
 Food Safe Limited
 Future Skills Academy Limited
 Genesis Power Private Training Establishment
 Gisborne Development Incorporated
 Horizon Education Limited
 ICENZ Limited
 Industry Training Works Limited
 International College of Chinese Acupuncture and Medicine
 IVS Training Limited
 JTP Consultants Limited
 Land Based Training Limited
 Literacy Aotearoa Charitable Trust
 M&O Pacific Limited
 Mainland Driving School Limited
 Manukau Institute of Technology Ltd
 Marine and Specialised Technologies Academy of NZ Limited
 Matapuna Trust
 Mines Rescue Trust
 MITO New Zealand Incorporated
 National Council of YMCAs of New Zealand
 National Trade Academy Limited
 Nelson Marlborough Institute of Technology Limited
 Nelson Technical Institute Limited
 NZ Marine and Composites Industry Training Organisation
 NZ Safety Blackwoods Worksafe Training

NZ Training Assessments Limited
 NZTI Limited
 Open Polytechnic
 Otago Polytechnic Ltd
 Pacific Coast Technical Institute
 Palmerston North School of Design Limited
 PassRite Driving Academy Limited
 Primary Industry Training Organisation
 ProDriver Training Limited
 Quality Education Services Limited
 Regent Training Centre Limited
 Safety 'n Action Limited
 ServiceIQ
 SIS Training & Consulting Ltd
 Skills Update Training and Education Group, Marsden
 Technical Institute, and Skills Update Training Institute
 Skills4Work Limited
 Skillsec
 Southern Institute of Technology Ltd
 Stainless Steel & Aluminium Welding Academy Limited
 Tai Poutini Polytechnic Ltd
 Tana Training Limited
 The Skills Organisation
 Toi Ohomai Institute of Technology Ltd
 TR Driver Training
 TR Driver Training Limited
 Unitec New Zealand Limited
 Universal College of Learning (UCOL) Limited
 Valley Education and Training Enterprises Limited
 Vanguard Military School
 Vertical Horizonz New Zealand Limited
 Vision College
 Waikato Institute of Technology
 Wellington Institute of Technology
 Wellington Institute of Technology Limited
 Western Institute of Technology at Taranaki Ltd
 Westport Deep Sea Fishing School
 Whitireia Community Polytechnic (Porirua)
 Whitireia Community Polytechnic Limited
 Wood Wise Limited

High Schools

Avondale College
 Awatapu College
 Bay of Islands College
 Birkenhead College
 Cambridge High School
 Dannevirke High School
 Feilding High School
 Francis Douglas Memorial College
 Fraser High School
 Gisborne Boys' High School
 Glenfield College
 Green Bay High School
 Greymouth High School
 Hamilton Boys' High School
 Hastings Boys' High School
 Hauraki Plains College
 Heretaunga College
 Hillmorton High School
 Howick College
 Hutt Valley High School
 James Hargest College
 Kaiapoi High School
 Kaikorai Valley College
 Kaitaia College
 Kapiti College
 Kerikeri High School
 Long Bay College
 Lynfield College
 Macleans College
 Mangere College
 Marlborough Boys' College
 Massey High School
 Melville High School
 Motueka High School
 Mount Maunganui College
 Napier Boys' High School
 Nelson College
 New Plymouth Boys' High School
 Northland Polytechnic Ltd
 Orewa College
 Otago Boys' High School
 Otamatea High School
 Pakuranga College
 Palmerston North Boys' High School
 Papatoetoe High School
 Paraparaumu College
 Pukekohe High School
 Rangiora High School

Rangitoto College
 Rolleston College
 Rotorua Boys' High School
 Rotorua Lakes High School
 Rutherford College
 Sacred Heart College (Auckland)
 Shirley Boys' High School
 South Otago High School
 Southern Cross Campus College
 Southland Boys' High School
 St Paul's Collegiate School
 Stratford High School
 Taieri College
 Taradale High School
 Taupo-Nui-A-Tia College
 Te Awamutu College
 Te Puke High School
 Tikipunga High School
 Trident High School
 Upper Hutt College
 Waimea College
 Waiopahu College
 Wairarapa College
 Waitakere College
 Waiuku College
 Wellington High School
 Western Heights High School
 Westlake Boys' High School
 Whakatane High School
 Whanganui High School
 Whangarei Boys' High School

Tāpiritanga toru | Appendix three

Process for developing the advice

Focus

Sources of Information

<p>Foreword and Introduction</p> <ul style="list-style-type: none"> • Acknowledge what TEC wish to see in interim advice • Council foreword • Executive summary 	<ul style="list-style-type: none"> • TEC advice documentation • Te Tiriti partners • Tertiary Education Strategy (TES) • Wānanga with our Council • Desktop research for our industries
<p>Strategic overview</p> <ul style="list-style-type: none"> • Overview of our industries • Summary of key industry insights • Summary of key Māori industry insights and trends • Summary of Pacific peoples' insights and trends • Summary of disabled community and trends • Summary of neurodiverse and trends • Summary of key industry insights and trends for under-represented groups • Key pressure points for industry • Data driven evidence using industry references and quotes 	<ul style="list-style-type: none"> • Desktop research and industry engagement • Ngāi Tahu Perspective on RoVE (as endorsed by National Iwi Chairs) • RoVE Technical Workshop • Te Rito-insights from Pacific learners and staff • TEU submission on RoVE • Te Rito insights from disabled learners • Infometrics • COVID Recovery Project
<p>Advice sections</p> <ul style="list-style-type: none"> • Our Strategic Priorities links • RSLG Links • Clearly reflect key industry challenges and opportunities • Māori, Māori business and other under-represented groups • Clarify links to Workforce Development Plan, Operations Plan and other key documents and strategies • Include collaboration and links to activities/priorities of other agencies • Connects to core business • Connects to Operational Plan, Establishment Report 	<ul style="list-style-type: none"> • TEC advice • RoVE priorities • WDC performance measures • TES • Our Workforce Development Plan and Operations Plan
<p>Embed</p> <ul style="list-style-type: none"> • Honouring Te Tiriti o Waitangi and Māori-Crown relations • Te reo Māori • Pacific peoples, disabled, neurodiverse and gender-based equity • References and quotes from key strategies 	

Hanga-Aro-Rau Advice

<p>Advice on the mix of investment 2023</p>	<p>Advice relating to any specific TEO</p>	
<p>UFS Strategic component element 1: Regional and national skill priorities</p>	<p>UFS Strategic component element 2: Vocational programme development and maintenance - UFS</p>	<p>Advice outside of the mix of provision</p>



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