HANGA-ARO-RAU
Manufacturing, Engineering and Logistics
Workforce Development Council

Skills and Workforce Leadership Plan
2022/23

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

He kōrero nā te poari | Foreword from our Council

Tēnā koutou katoa

Our matawhānui or broad vision for Hanga-Aro-Rau is the manufacturing, engineering, and logistics industries we represent 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, 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 (WDCs), noting our joint ongoing commitment towards collaboration for the benefit of our industries, some of which cross WDCs in their training requirements.

To that end, we see this first Skills and Workforce Leadership Plan as another important step in delivering the vision and transformation needed in our vocational education system.

We identify the many challenges that remain as Aotearoa 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. 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. 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 and 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

Introduction

Tēnā koutou katoa

Welcome to Hanga-Aro-Rau's Skills and Workforce Leadership Plan (SWLP) 2022/23

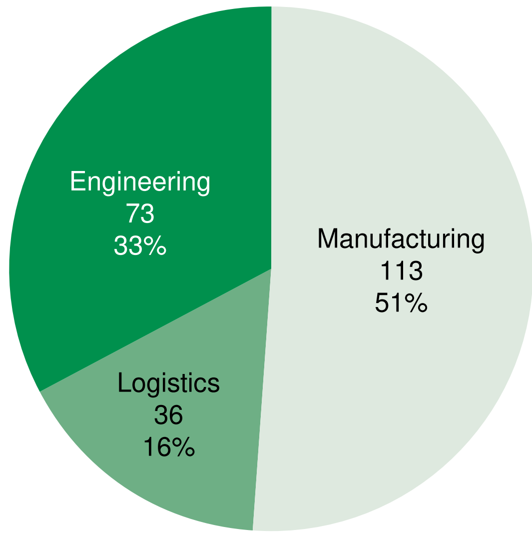
As Chief Executive and Deputy Chief Executive of Hanga-Aro-Rau (Manufacturing, Engineering and Logistics), we welcome you to our Skills and Workforce Leadership Plan (SWLP) 2022/23. The objective of the SWLP is to provide our industries, the Tertiary Education Commission (TEC), and other key stakeholders with a view of the issues and opportunities within the sectors we serve, ideas for what is needed to meet the national and regional skill requirements within our sectors – both currently and for the future – and to begin to develop a picture of how our industries have been impacted by various challenges, from within our borders and beyond.

About Hanga-Aro-Rau

Hanga-Aro-Rau is one of the six Workforce Development Councils (WDCs) whose role is to ensure the vocational education system meets industry needs and gives a stronger voice to Māori business and iwi development. 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.

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 represents employ 657,144 people in approximately 105,000 businesses that contribute $80 billion of New Zealand's gross domestic product (GDP). We are the standard setting body for approximately 222 qualifications and 4,285 unit standards. Around half of our qualification and unit standard suite relates to the manufacturing domain (49 per cent), followed by engineering (26 per cent) and logistics (25 per cent). Over 313 unique providers use Hanga-Aro-Rau unit standards.

Hanga-Aro-Rau's number of qualifications and employee percentages by sector



Across this portfolio, and woven throughout this SWLP, we have five focus areas which summarise our duties as established in our May 2021 Order in Council under Section 363 of the Education and Training Act 2020. These duties are:

1. Provide a voice for our specified industries to contribute to the creation of a sustainable, globally engaged, and adaptive New Zealand
2. Contribute to an education system that honours Te Tiriti o Waitangi and supports Māori–Crown relations
3. Ensure fair and equitable outcomes for all, including those who have been traditionally underserved by the education system
4. Support the current and future workforce to develop the skills, knowledge, and qualifications needed for future success
5. Strengthen quality vocational educational and training through programme development, endorsement and moderation.

The SWLP

To develop our first SWLP, Hanga-Aro-Rau has leveraged 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 tīma (team). A cross-functional team combined quantitative data gathering with first-hand industry engagement, including an online survey and over 50 in-depth interviews with key stakeholders: employers, industry representatives and learners. We liaised with iwi and government representatives, members of other WDCs and RSLGs. We have also accessed and included insights from a number of industry and government-generated research reports.

With such a large remit, we have chosen to apply a 'deep dive' focus to six industries (wood manufacturing, print, signmaking, commercial road transport, automotive engineering and mechanical engineering) to allow us to get a little closer, and to understand their perspectives and drivers related to vocational education and workforce development. These industries were selected because of the:

- Significant presence of, or significant lack of, Māori within the industry
- Alignment to the 2022/23 qualification review schedule
- Representation of a cross-section of each of our high-level sectors.

At the time of writing, a report traversing much of the same territory was completed by one of our apparel manufacturing partners, so we have also included a snapshot of their findings. In future SWLPs, we will not only extend the number of industries we consider in a 'deep dive' approach but also step from these understandings into a fuller and more targeted planning process. Our focus will move from an annual cycle to a longer-term view and more enduring actions.

Since the time of writing this report, additional research has commenced or been released that will further inform the recommendations presented in this document and future Skills and Workforce Leadership Plans. These include:

1. The MBIE-lead, and industry co-designed draft Advanced Manufacturing Industry Transformation Plan, released for public consultation on 01 June 2022.[1]
2. Research on the impact COVID-19 has had on the manufacturing and engineering sectors, including improving diversity and equity in attracting people into our sectors. This is via two TEC-funded projects, with the latter also a collaboration with Waihanga Ara Rau.

Amidst a raft of challenges and changes faced by the manufacturing, engineering and logistics sectors, four recurring key themes have been selected for further discussion: Māori, Pacific peoples, COVID-19, and the aging workforce. We then consider what actions and activities Hanga-Aro-Rau will undertake in the next year to support workforce skills and leadership development. We also highlight opportunities for further research which have arisen as we completed our establishment phase and move into our 2022/2023 operational mahi.

Finally, the Appendix to this report is Hanga-Aro-Rau's Āta Huritao: Self-reflective Duties and Functions Tool (2022), which re-states the duties and functions outlined in our Order in Council, as a series of questions for internal use, to help us steer our waka, and hold our operational course. It is included here to help the reader understand how we operate and ensure that all we do links to our designated responsibilities and, most critically, industry and stakeholder needs.

1 Advanced Manufacturing | Ministry of Business, Innovation & Employment (mbie.govt.nz) (June, 2022)

A snapshot of what we have learned about Hanga-Aro-Rau industries

Common challenges

- The biggest labour market issue for over two thirds of businesses right now is recruiting for the skills that are required in the workplace.
- The next most cited challenges were issues with the aging workforce, the ongoing impact of COVID-19 and retaining staff.
- About a third of survey respondents stated that their organisation relied on immigrants to fill positions, mainly due to the need for specialist skills that locals cannot fill.
- The majority of employers we interviewed and 80 per cent of survey respondents said that graduates they employed from vocational education frequently did not meet their expectations of skills required. Gaps included new technologies, digital skills, employability skills, literacy and numeracy, and general work-readiness.

What industry want to see from RoVE

- A work-readiness focus that includes core transferable skills: work ethic, team-mindedness, an understanding of productivity, industry, and how businesses work, foundation literacy and numeracy.
- Programme consolidation and maintenance of quality through qualification reviews to ensure consistency and value for employers AND ākonga/tauira (students/trainees).
- More focus on trades and industry as a career, prioritising digital skills and science, technology, engineering and mathematics (STEM) subjects.
- Inclusivity and equity: our Māori and Pacific peoples' contributors want to be part of the change and have a voice in decision-making.
- Vocational education which includes Te Ao Māori – and supports a holistic understanding of learners' cultural heritage and identity.
- Micro-credentials – to support upskilling of the existing workforce and specialist technologies, and promote lifelong learning to ensure adaptability and sustained participation, social mobility and prosperity.
- More work-based/onsite training, requiring better-equipped trainers and assessors.

Opportunities

- Building relationships with RSLGs: regional initiatives represent opportunities to test educational solutions, develop best practices and learn from their implementation to develop national responses and scale up. Hanga-Aro-Rau is seeking to support and partner regionally led actions that will impact manufacturing, engineering and logistics industries.
- Using Hanga-Aro-Rau's growing databases of employers, industry representatives, Māori business/iwi/hapū industry and Te Tiriti partners to collect and share successful strategies and innovations, and foster collaboration.
- Focusing on 'mainstream' employers who employ strong proportions of Māori and Pacific peoples, as well as Māori employers (who are three times more likely to employ Māori), as part of our work to build equity.
- Identifying gaps and undertaking applied research (such as the current COVID-19 recovery research project to build tools and frameworks to support our sector to develop a sustainable and adaptive workforce.
- Working with all tertiary education organisations (TEOs), including Te Pūkenga, private training organisations (PTEs) and wānanga to find agile and niche solutions, where appropriate.

Hanga-Aro-Rau is still young: we only became fully operational in October 2021, and this inaugural SWLP reflects the tight timelines under which it has been written. Despite these challenges, the tīma is proud of what we have achieved. We have connected with more than 100 employers, learners and industry spokespeople, who collectively represent many thousands of the workforce in the manufacturing, engineering and logistics sectors. We have heard stories of success, pride and achievement, alongside some frustration and calls for change. We acknowledge more can be done to better meet and anticipate employer and industry needs as they relate to the future of work. Increased resources, support and training requirements for cultural capability, diversity and equity are needed across the vocational education system. Above all, we have heard, and heeded the call across our sectors, for **equity**, **action**, and **keeping industry voice always at the centre of our work**.

Our journey towards helping shape a sustainable, equitable, globally engaged, and adaptive Aotearoa to enable greater social mobility and prosperity has begun. We look forward to walking 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.

It has been an honour and a privilege to develop this plan.

Ngā mihi nui

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

Table of contents

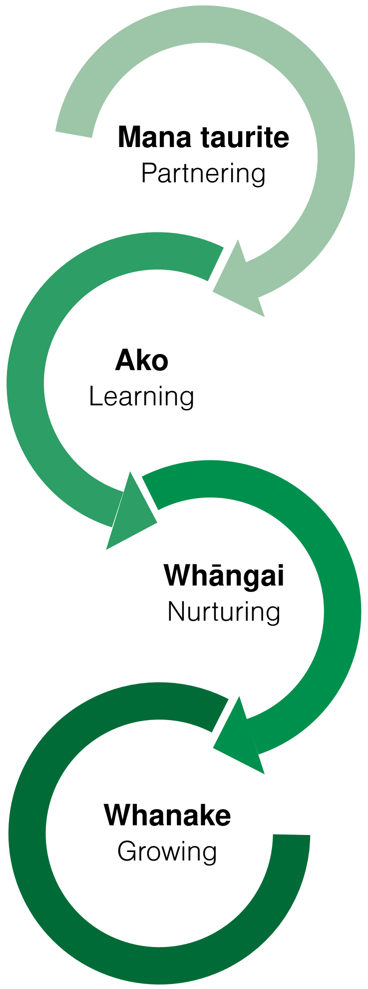
Our kaupapa

This report, like all Hanga-Aro-Rau's mahi, has been informed by our commitment to honouring Te Tiriti o Waitangi, through a change methodology:

Change approach

1. MANA TAURITE: EQUAL STATUS, EQUITY, EQUALITY

Partnering which is mana enhancing, relationships are developed early and mahi is progressed together. Nothing about us without us. This report includes insights from many of our partners with whom we are establishing relationships: iwi and hapū, industry associations and employers, Regional Skills Leadership Groups (RSLGs) and government departments. As we continue to grow and extend these relationships, we will actively seek opportunities to partner further with other WDCs, TEC, NZQA our education providers (Te Pūkenga, PTEs, wānanga), and the wider vocational ecosystem.



2. AKO: LEARNING AND TEACHING IS RECIPROCAL

Describes the learning relationship where the teacher acknowledges they learn as much from the learner as the learner does from the teacher. Where the educators' practices are informed by the latest research. Listening to voices from the field as part of our industry engagement has contributed to a strong starting position for Hanga-Aro-Rau in understanding our sector's vision for the future of work and the challenges faced now – described in these pages. Our work ahead is to support providers through our functional mahi (qualification development, programme endorsement, moderation and investment advice) to plan for teaching and learning that helps to close this gap.

3. WHĀNGAI: TO FEED, NOURISH, BRING UP, FOSTER, ADOPT, RAISE, NURTURE, REAR

Takes a holistic approach to nurturing from a Te Whare Tapa Whā perspective, the mind, body and soul is nourished. Many of the struggles experienced by the manufacturing, engineering and logistics sectors are not theirs alone: the impact of the pandemic, skilled workers shortage, vulnerability to fluctuating national and global economies, and a workforce with some way to go to achieving equity and inclusiveness. This report includes our learning about how these forces act on our sector, and how we can advocate on their behalf for vocational training models which offer relevant and practical solutions. In turn, we will support our industries to see the benefits of equity and diversity in building a long-term, sustainable and socially mobile workforce.

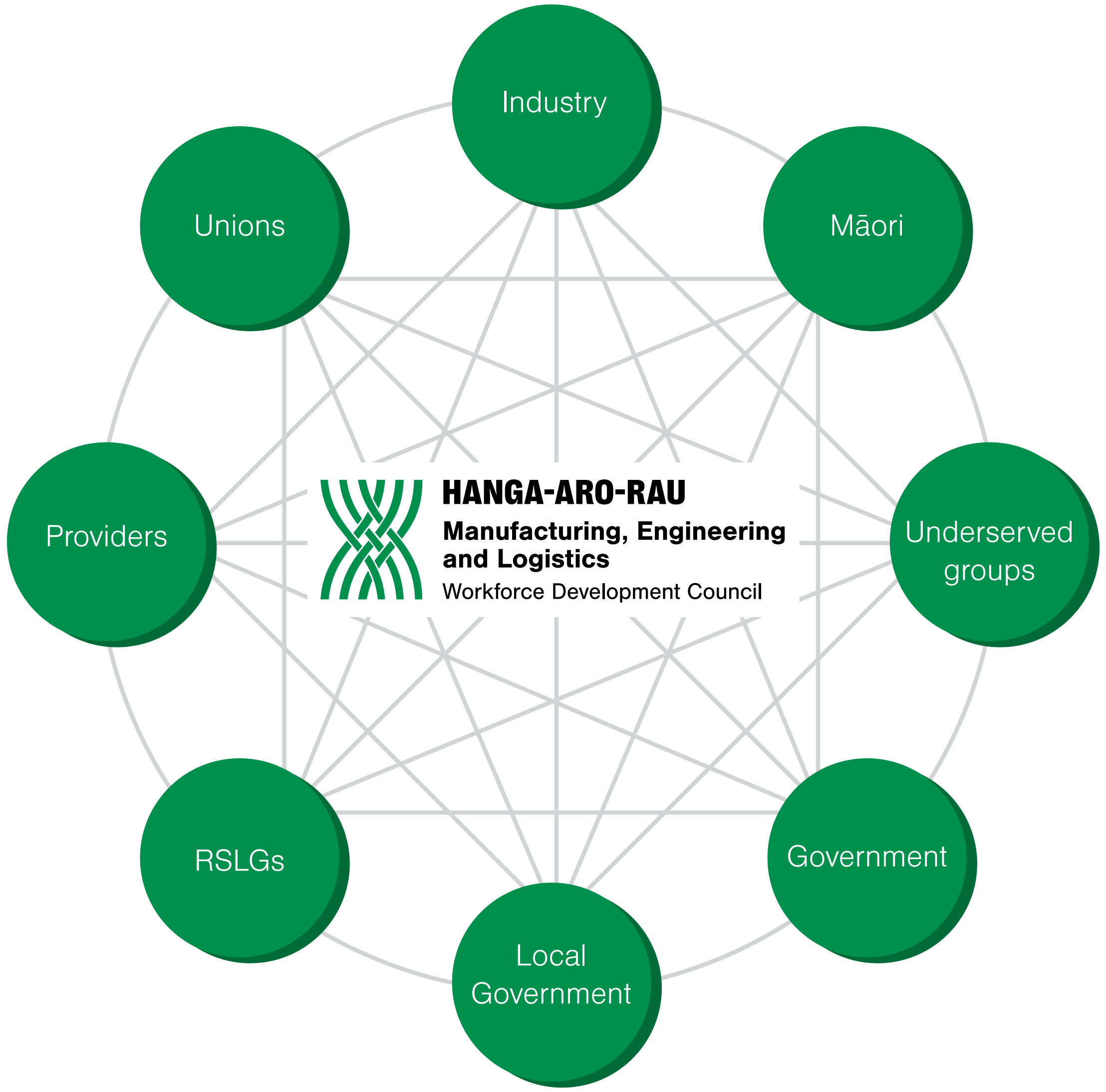
4. WHANAKE: TO MOVE ONWARDS, MOVE UPWARDS

Each is responsible for paddling the waka and supporting each other as they paddle, some may move slower, some faster but everyone paddles. Our paddles are the principles of kaupapa Māori, building mana, revering wisdom, valuing relationships, nurturing our young people and respecting where we have come from as well as where we are going. Our steering blade is our commitment to Te Tiriti o Waitangi, recognising the place of tangata whenua alongside the interests of all New Zealanders. This inaugural SWLP offers our first view of the horizon and acknowledges, with humility and anticipation, the distance we must travel.

He waka eke noa. We are all in this together

How we have learned about the sector

The Hanga-Aro-Rau Engagement Wheel represents our connections across and between our stakeholder groups. Many of these voices are represented directly, or via review of quality assured publications which represent relevant perspectives, as outlined in the following summary.



Our data sources

Quantitative data analysis Industry, sector and population-based data has been compiled from quality assured national datasets, including official census and various survey data results from Statistics New Zealand; GDP, enterprise and employment data from Infometrics; and educational achievement data from TEC, including the Ngā Kete repository.	**3 sources of statistics**
Industry engagement Individual interviews were sought with representatives of our six selected 'deep dive' industries. Using a semi-structured interview protocol, employers and industry association spokespeople were asked their current workforce skill requirements, how they sourced new recruits and whether they engaged formally with the vocational education system. We also asked about staff retention and succession planning. Interview notes were then transcribed and analysed for recurring themes.	**32 interviews**
Individual profiles From interviews with industry representatives, some were invited to share their personal career experiences and learning pathway. This report's purpose was explained, their narrative transcribed, and their final approval sought. These stories are complements to the wider sector and industry discussions, and humanise the data and themes presented.	**9 conversations**
Māori business/iwi/hapū industry consultation More than 80 organisations representing the interests of Māori in our sectors were contacted, with 12 face-to-face interviews conducted. Participants included members from iwi across the motu, government ministries and agencies, industry groups including unions, and Māori business owners. The process was led by our Poumatua (General Manager Māori Workforce Development), Darrell Lambert, seeking insights about current strengths, weaknesses, opportunities and threats for the workforce, and what they would like to see from the vocational education reform process to support rangatahi, Māori stakeholders, and the Māori economy – by Māori, for Māori.	**12 meetings**
Employer survey To better understand our sectors' skills and workforce demographics, development needs and priorities, we developed a 19-question online survey. The survey was sent directly to our database of stakeholders in March 2022, followed by a reminder in our e-newsletter, Te Hā. While the response rate was low at 54 replies, the information collected has been helpful to support key insights identified from interviews and data analysis.	**54 participants**
Linking with RSLGs Online interviews were held with the Ministry of Business, Innovation and Enterprise (MBIE) regional leads of all 15 RSLGs during March and April 2022. These focused on establishing partnerships to ensure respective work can be effective nationally and regionally and identifying synergies between regional priorities and Hanga-Aro-Rau's focus sectors. Key insights from these interviews have informed this report and contributed to a richer understanding of the challenges and opportunities for future collaborative work.	**15 consultations**
Industry research and report publications This report includes insights gleaned from government reports and industry-based research and commentary. This approach allows us to represent multiple perspectives and stakeholders, complementing the broad, inclusive, and collaborative approach we have strived for in our industry and iwi engagement outlined above.	**38 reports**

Limitations

The results in this report are not official statistics. Numerical data come from multiple sources but predominantly from Infometrics and were current at the time of writing. Sector profiles in Infometrics were adjusted to reflect the specified Australian and New Zealand Standard Industrial Classification (ANZSICs) as stated in Hanga-Aro-Rau's Order in Council 2021 and therefore data on topics such as employment, GDP and business units may differ from standard Infometrics' sector profiles. This also means our Infometrics data does not always align with official data from Statistics New Zealand, other official datasets or reports completed by industry bodies.

We acknowledge the smaller-than-hoped-for number of interviews and survey responses, undertaken when employers were feeling the pressure of COVID-19. This means our findings are indicative rather than representative of the large and diverse industry sectors covered by Hanga-Aro-Rau. Individual testimonies from employers and learners are illustrative and not generalisable to a wider population. Where possible, all contributors were able to verify and amend the transcripts of their interview and/or a draft of this report prior to submission. However, the ongoing impacts of COVID-19 and the time constraints of the project may have affected this process.

The analysis, insights, conclusions, and recommendations in this report are those of the authors, not individual data suppliers.

The data and insights were accurate at the time of compiling and writing this report in May 2022.

Overview one: the manufacturing, engineering and logistics workforce[2]

Hanga-Aro-Rau WDC represents multiple industries within the manufacturing, engineering and logistics sectors, defined by Australian and New Zealand Standard Industrial Classification (ANZSIC) categories:[3]

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

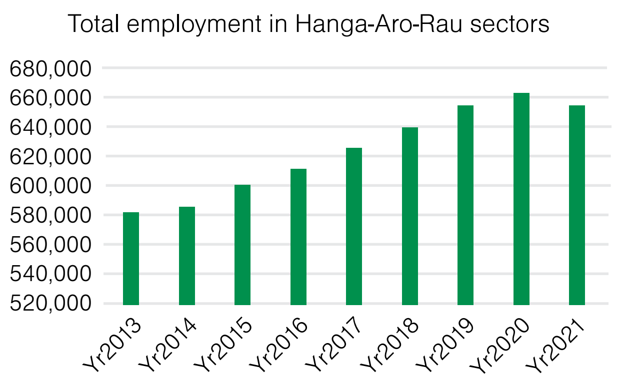
- Air and Space Transport
- Commercial Road Transport
- Customs and Freight Support Services
- Digital Infrastructure
- Driving Skills
- Forklift
- Marina Operations
- Postal and Courier Services
- Rail Transport
- Resource Recovery and Efficiency
- Road Passenger Services
- Stevedoring and Ports
- Supply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

2 Data in this section of the report is sourced from Infometrics; Ngā Kete; Public Workforce 2035; StatsNZ; Te Pūkenga (2021a;b;c;d).

3 The ANZSIC system, used by multiple government departments, agencies and researchers to compare industry statistics, comprises 19 broad industry divisions, 96 industry subdivisions, broken down into Groups and Classes. When TEC and the RoVE programme were considering how WDC coverage could be best described in the Order in Councils, it was agreed to use the ANZSICs system as a starting point. However, it was also recognised that the codes do not always, or completely describe the industries within a particular WDC's coverage. Different ANZSIC users have different ways of grouping industries, so that the high level ANZSICs selected from Infometrics and Statistics NZ are not an identical match to the Hanga-Aro-Rau sectors. The data in this report has therefore been aggregated from a range of sources, meaning that not all the indicative figures given here will necessarily match a single source's published report.

Where the jobs are

In 2021, the manufacturing, engineering and logistics industries contributed **$80.6 billion**, or **25 per cent**, of New Zealand's total GDP. **A quarter of the total workforce** are employed in the industries which Hanga-Aro-Rau represents – half of these in manufacturing, and the other half almost equally split between engineering and logistics.



As shown here, our combined sectors experienced annual job growth of between 12,000 - 15,000 full-time positions between 2015 and 2019. In 2020, job growth was half of that in 2019 and went negative in 2021, losing slightly more than 6,000 full-time positions. Most job losses (nearly 5,000) were in logistics – the group most impacted by the COVID-19 pandemic.

Following what is hoped to be a short-term hit, **employment in our sectors is forecast to grow** annually, exceeding 700,000 in 2027; this would represent an 8 per cent increase from 2021.

Employees are spread across businesses from small and medium-sized owner-operators, to large national, Australasian, and international organisations and franchises. In 2021, there were 105,000 businesses, a drop of 540 from the previous year, and the first annual decline since 2012. Manufacturing and engineering both have around 38,000 businesses, with about 28,000 in logistics.

Workforce diversity

Together, **our sectors employ a higher proportion of Māori and Pacific peoples than total industries**. In 2018, this was 14 per cent and 8.4 per cent respectively, compared to 13.5 per cent and 6.5 per cent for all New Zealand industries. Further, the numbers of both groups employed in the sectors increased far in excess of European employees between 2013 and 2018: Māori employment grew by 22,000 (a 32 per cent increase) and Pacific employment by 16,000 (a 43 per cent increase). However, these numbers were outstripped by an additional 30,000 Asian workers (a 51.4 per cent increase), and 3,000 more Middle Eastern, Latin American and African (MELAA) employees (68.5 per cent rise) in our industries over the same timeframe. These figures do not distinguish between immigrant workers and New Zealand permanent residents, so when updated data becomes available that reflects the impact of COVID-19 on workforce demographics, it may tell a different story.

Women are not well-represented in our sectors: in 2021, only a quarter of employees were female. Unlike the relatively even spread of ethnicities across the three Hanga-Aro-Rau industry groupings, women are more likely to work in manufacturing roles (30.2 per cent of the manufacturing workforce) than engineering (17.3 per cent) or logistics (23.8 per cent). A counter-initiative already underway, the Industry Equity Project, hopes to make an impact on this underrepresentation. It focuses on assisting women displaced from employment in other sectors due to the pandemic and its economic repercussions, on manufacturing, engineering and logistics' roles and training. Hanga-Aro-Rau has already engaged with Waihanga Ara Rau (Construction and Infrastructure) WDC to assist with pathways that support women to pursue a career in trades.

Another minority group that we recognise needs better access and support in our sectors are those workers registered as disabled. Across Aotearoa's total workforce, the employment rate for disabled people was 26 per cent versus 70 per cent for non-disabled. The number of people with a disability in employment grew by 11,800 in 2021, a 12 per cent annual increase. While precise disability data isn't yet available for our sectors, Labour Market Statistics (disability) from June 2021 indicate there may be around 15 per cent of people employed with a disability. Job tenure data indicates that disabled people tend to stay in their jobs longer than non-disabled. Exploring solutions to improve equity for this priority group will be an important aspect of Hanga-Aro-Rau's future mahi.

Qualifications and roles

The Hanga-Aro-Rau sectors combined present **an occupational profile quite different to that of the overall Kiwi economy**. One in five employees are labourers; slightly more than a third of employees are technicians and trades workers, strongly influenced by logistics and engineering; only 23 per cent are managers or professionals, compared with 43 per cent in the total New Zealand workforce.

Qualification completion rates are improving, but still lag behind the rates for the overall New Zealand workforce. In 2018, there were notably more workers without qualifications in the Hanga-Aro-Rau sectors than for all industries – 15.2 per cent compared to 10.9 per cent. Fewer employees had degrees or higher than all industries in Aotearoa - 18.1 per cent versus 28.3 per cent. While a higher proportion (12.1 per cent) of employees in Hanga-Aro-Rau sectors had level 4 certificates compared with all industries in New Zealand (9.5 per cent), numbers with this qualification are declining. Across all our sector groups, the biggest growth in qualifications held is in level 3 certificates, although there is also a slow increase in degree holders.

The biggest sector challenge: a skills and worker shortage

"*New Zealand historically has had the highest Organisation for Economic Co-operation and Development (OECD) rate of people moving both in and out of New Zealand. Our domestic labour market is open, and workers have choices about where they work. New Zealanders switch jobs at a higher rate than the OECD average. With this dynamic, and an aging population, the public sector's employee value proposition needs to be strong as there will be more competition for relatively fewer highly skilled workers.*" (Public Workforce 2035, 2021, p.1)

A shortage of workers in general, and a lack of workers with the requisite skills, knowledge and attitude, were a recurring theme across all data sources and informants contributing to this SWLP.

Demand factors include internal and export end-users' expectations of quality, innovation, sustainable practices, and sophisticated technologies. Employers need a workforce who are adaptive, digitally savvy and can navigate the 'fourth industrial revolution' and its fusion of advances in fields such as artificial intelligence (AI), robotics and 3D printing. Workers in Hanga-Aro-Rau industries will also often need non-traditional skills such as cultural understanding, alongside generic transferable skills like teamwork and the 'right attitude'.

Supply issues include an aging workforce and the accompanying loss of experience and mentoring capacity – discussed more later. Also discussed further on, is the widespread impact of the COVID-19 pandemic:

- Immigrant labour, which many employers relied on, has been dramatically reduced with our extended border closure.
- Labour shortages overseas have disrupted supply chains and severely impacted price and productivity.
- Businesses have pivoted, scaled back and/or closed, all of which disrupt workforce stability.
- Unemployment and underutilisation (spare labour market capacity) figures continue to fall to near-record lows, meaning a far smaller pool of casual and unskilled labour available to cover staff loss.
- It is hardly surprising that competition for workers is leading to higher than pre-pandemic rates of turnover, with local and international competitors offering higher remuneration and attractive employment benefits.
- A concern about the impact on mental health, and motivation – especially for youth. The proportion of young people who are not in employment, education and training (NEETs) has long been recognised as an indicator of youth disengagement. The Maxim Institute (2020, p. i) warns that "*New Zealand faces the risk of a 'lockdown generation', with long-term social and economic costs*".

All industries within the manufacturing, engineering and logistics sectors share a common need to **train** a future workforce to meet known and unknown workplace challenges and opportunities, to **recruit** new hires to meaningful roles with career potential, and to **retain** talent and experience – even beyond the traditional end-of-working years. Vocational education, in the classroom and at the worksite, has an integral place in all these endeavours.

Overview two: a snapshot across the regions of manufacturing, engineering, and logistics

In early 2022, Hanga-Aro-Rau undertook intensive engagement with 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 SWLP. We also shared our own insights from industry engagement across the motu as well as advocated for our industries to feature in future RSLG initiatives.

This engagement identified RSLG focus areas that align with our own duties and responsibilities, including:

- 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 also similar to Hanga-Aro-Rau's areas of focus and include: the Māori workforce – including wāhine (women); Pacific peoples; older workers; disabled people and people with health conditions; rangatahi (youth), including NEETs; and women. However, there are also distinct regional variations, for example, close to nine in ten Māori live in the North Island, and one quarter of Māori live in the Auckland region. This pattern is expected to persist, with the largest Māori populations projected (by 2038) for Auckland, followed by Waikato and the Bay of Plenty.

Examples of Hanga-Aro-Rau and RSLG collaborative projects

Working with the regions gives us the opportunity to collaborate and support projects which are designed to boost employment and community wellbeing.

1. **TEC COVID-19 Response Fund research project** - the Post COVID-19 Workforce Development Needs in New Zealand's Manufacturing and Engineering Industries research primarily focuses on Tāmaki Makaurau, Waikato and Canterbury employers. The research outcomes will allow for further collaboration with RSLGs and actions to address gaps and barriers to skills development.

2. Two further collaborative projects currently in development are **the new Dunedin Hospital and KiwiRail's Hillside Workshops redevelopment**. The new hospital will be built in two stages, to open fully in 2028. The design and use of latest technology is forecast to contribute an estimated $429 million GDP, and employ thousands of trades workers, including mechanical engineering, welding, fabrication, fire protection, refrigeration, heating and more. KiwiRail's Hillside Workshops are already a key employer in Dunedin's engineering sector. New Government funding to build a wagon assembly facility will require 250 construction and associated trades jobs and create business for local material supply companies. KiwiRail is projecting 45 new engineering jobs, of which at least 10 per cent will be apprentices or trainees.

   It is clear these projects can have both a positive and adverse effect on existing employers in a region. The projected demand for engineers for these projects means that if we do not build the pipeline for new workers they will instead be drained from existing companies, a risk for regional viability and international competitiveness. Through employer engagement, we heard from one Dunedin engineering company that they are concerned that if they lost staff, it would mean the highly specialised work they undertake nationally would go offshore – impacting service provision in Aotearoa. This employer and others around the motu indicated the need for business-specific workforce development plans, a service previously provided by industry training organisations, but unallocated in RoVE.

3. Already mentioned is the Industry Equity Project in which Hanga-Aro-Rau is partnering with the Waihanga Ara Rau. The primary purpose of this mahi is to create pathways and reduce barriers for women who have lost their jobs or had their employment impacted by COVID-19, to transition into and remain in careers within the trades. It will also create specialised support designed for Māori and Pacific career seekers and assistance for employers in these sectors to create safe and respectful workplaces that are ready to hire women provide ongoing support throughout their careers.

Co-sponsorship

Waihanga Ara Rau and Hanga-Aro-Rau have undertaken to jointly own successful delivery of the COVID-19 Response Industry Equity Project reflecting the collaborative working relationship between WDCs and the close alignment of outcomes for the respective WDCs for this project. The co-sponsorship model allows joint ownership on achieving outcomes and Hanga-Aro-Rau has committed additional project resource to meet deliverables.

Through various iterations and proposals for expanding the scope of this project, the final financial support from TEC for this project was $700k between both councils. An additional $200k was supported by TEC to accomplish the following:

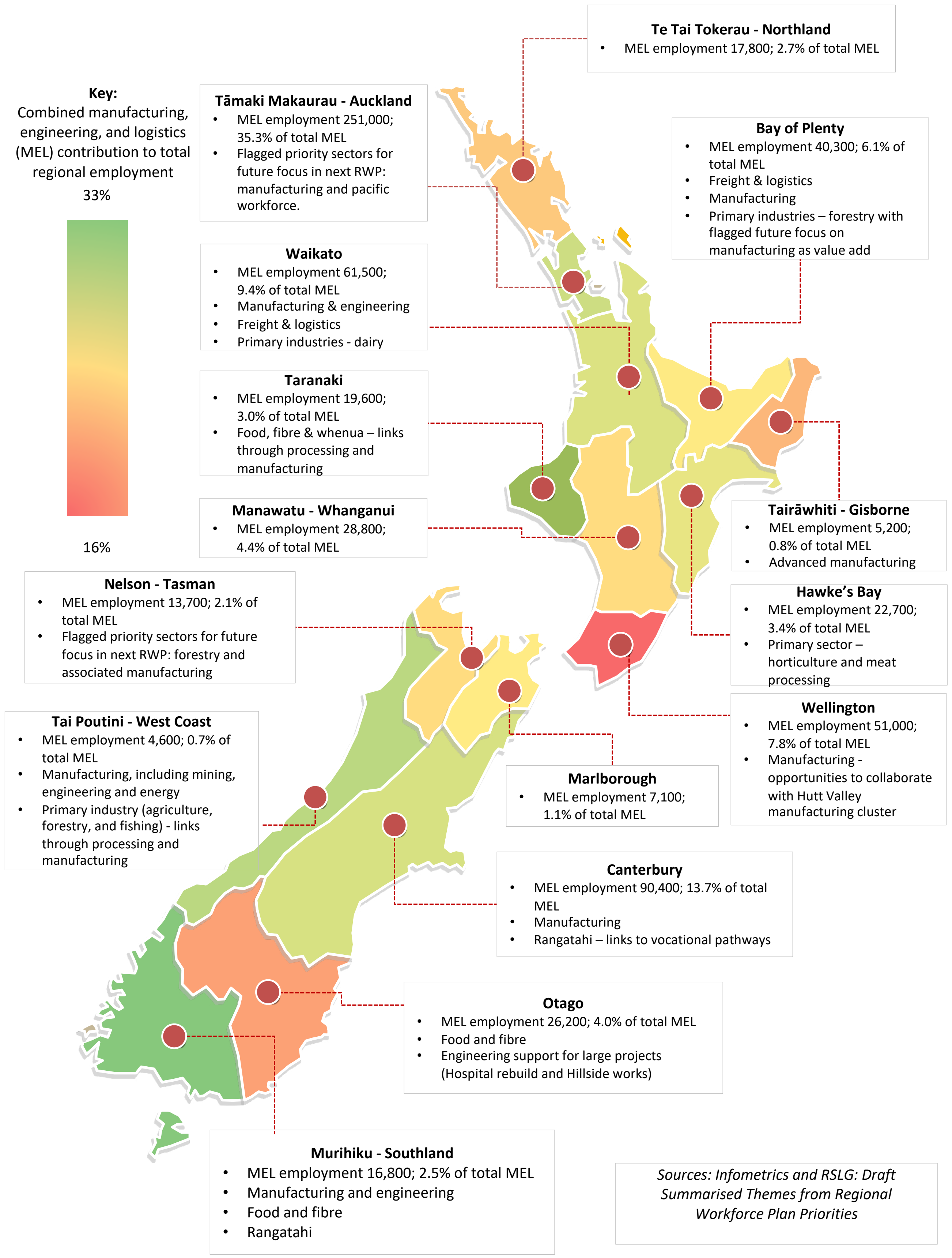
- Create additional opportunities to support both career transitions and retention for career seekers and increase the potential reach of activities
- Broaden the impact and increase the potential reach of activities
- Create capacity for more meaningful engagement with iwi/hapū/Māori to support our Māori and Pacific learners, including the ability to engage Māori and Pacific engagement leads
- Support employers to create safe and respectful workplaces that are ready to employ and to continue to support women in the workforce
- Adequately resource the project team to deliver within the timeframe.

A large portion of the funding has been allocated to workstreams for Māori and Pacific engagement in consultation with senior advisors in these respective areas including Poumatua (Robbie Paul), General Manager Māori (Garyth Arago-Kemp), and the Hāpaitia Senior Pacific Advisor (Magele Maria Uluilelata).

Mapping our country through a manufacturing, engineering and logistics lens

The chart on the facing page shows New Zealand's regions as colour blocks responding to the proportion of total regional employment our combined sectors make up in each region. Bullet points for each region include (1) the number employed in our sectors (2) the percentage of sector employment in each region, and (3) the current regional priorities of each RSLG which relate to Hanga-Aro-Rau industries.

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



Sources: Infometrics and RSLG: Draft Summarised Themes from Regional Workforce Plan Priorities

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

Manufacturing

Manufacturing in Aotearoa[4]

Manufacturing comprises all businesses that transform materials and resources into new products. It is a broad industry encompassing sector groupings such as food and beverage processing, the manufacture of textile, clothing and footwear products, wood and paper products, chemicals and polymers, metals and plastics, wood and furniture, equipment, and includes sign making and printing.

Contributed
$39.7 billion in GDP
in 2021.

319,474 jobs
12.2 per cent of New Zealand's total workforce

Large gender disparity
(2021)

MALES	FEMALES
222,887	96,586
69.8%	30.2%

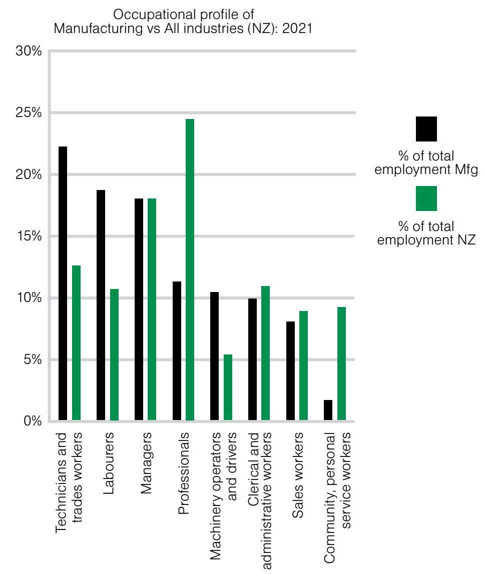
A higher proportion of Māori and Pacific peoples

than the whole New Zealand workforce, and representation of both groups is increasing: Māori employment grew 10,314 between 2013 and 2018 (a 29.3 per cent increase), and Pacific peoples' employment grew 7,800 in the same period (a 36.9 per cent increase)

Higher proportions of employees in the 40-to-59-year age groups
44 per cent
than the whole of New Zealand (40 per cent)

A large manual workforce

- Slightly more than one in five (22 per cent) employees in manufacturing are technicians or trades workers, notably higher than the general New Zealand workforce (13 per cent)
- Nearly one in five (19 per cent) employees are labourers; this compares with one in ten for overall workforce in Aotearoa (11 per cent)



Across developing countries, including New Zealand, the manufacturing share of employment and GDP has been declining over time, and in New Zealand the decline has been one of the largest in the OECD (Martin-Jenkins, 2020a). Two key causes are increased automation, and increased competition from overseas, and especially developing economies with cheap labour.

4 All data in this Manufacturing section is aggregated from EMA (2022); Footprint, 2021; Infometrics; Martin Jenkins (2020a; 2020b); Mindful Fashion (2022); NZIER (2021); StatisticsNZ; Taylor Higson (2022). Unless otherwise attributed, all quotations are from Hanga-Aro-Rau industry engagement contributors.

Key workforce challenges include many related to manufacturing, engineering and logistics:

- **Current high employment** makes hiring difficult, and the workforce is vulnerable to **poaching** from competing businesses, or lucrative international opportunities.
- **External forces**, including supply chain issues, pandemic disruptions, and economic and bureaucratic constraints are impacting many businesses, especially those servicing the building and construction sector, affecting job stability/security.
- A shortage of people trained in the **equipment and systems** that industry is using, recognising that this is changing rapidly:

  "Our equipment is getting more complicated, so we need more highly trained people"
  – Employer, Wood manufacturing
- The aging workforce – an issue for 57 per cent of our manufacturing survey respondents.

Key trends in manufacturing that impact the workforce are:

- **Diversity:** Manufacturing provides for a diverse workforce (employing more Māori and Pacific people than other industries), with industry commentators suggesting increased automation offers the potential to open roles for people with disabilities and other marginalised groups. The current gender imbalance suggests opportunities for new strategies to attract more women.
- The impact of 'Industry 4.0' (Fourth Industrial Revolution) and application of **digital technologies to improve production processes**. Examples include remote monitoring sensors and controls, robots and automation, 3D printing, artificial intelligence, and virtual reality technologies. In one 2018 survey, positively, just over half of manufacturers reported they had introduced new automation over the previous two years, a higher proportion than across industries as a whole (Martins Jenkins 2020b). Employers will need to match investment in new technologies with opportunities to upskill staff.
  "The industry profile is changing - new technologies, cleaner workshops, less manual work due to new types of machines"
  – Employer, Print
- **A focus on environmental impact**, and the skills and knowledge to support this. An expected future focus is an extension of the concept of 'lean manufacturing' (maximising productivity and minimising waste) to a 'low emissions circular economy' manufacturing – where product parts can be recycled or recovered, and production prioritises reduced energy use, minimised emissions and waste elimination (i.e., a high percentage of used material is re-circulated back into the production system) (ibid).

What our manufacturing employer respondents would like to see from vocational education:

- The same urgent need for **employability skills, STEM fundamentals, and advanced specialist/technical applications** as referenced by the wider Hanga-Aro-Rau sector
- An updated understanding and portrayal of the manufacturing profile to learners – the range of roles, opportunities for advancement, innovation and entrepreneurship
- A greater emphasis on diversity and inclusion, with priority learners encouraged into the trades space. A strategy would be incorporating **cultural principles, case studies and role models into qualification delivery.**
- **Cutting edge research – western and mātauranga Māori**
- **Graduate programmes** for Māori
- New **trainers up to speed** with training tools and skills, and can train onsite assessors
- Meaningful **collaboration**, recognising the significant amount of informal and formal learning that takes place in the workplace (e.g. on-the-job training, job-shadowing, internships and apprenticeships) which needs to be recognised and integrated with classroom provision
- **Flexibility** – in delivery modes, timeframes and assessments, to support businesses with seasonal workflow (e.g. those supporting horticultural and dairy sectors) and fluctuating workforce numbers due to the pandemic.

Connection to Regional Skills Leadership Group priorities

Manufacturing is a priority sector for a number of RSLGs for 2022 including Waikato, Bay of Plenty, Tairāwhiti, Wellington, Tai Poutini West Coast, Canterbury and Southland, with Tāmaki Makaurau signalling a future focus. As a whole, manufacturing contributes considerable employment and GDP to the regions, and makes up parts of supply chains domestically and internationally.

"The greatest opportunity, and potentially the greatest risk, is the implementation of the Reform of Vocational Education (ROVE). The reform represents radical change and may initially exacerbate the skill challenges as the changes… could side-track providers from existing delivery… Manufacturers need a system that meets their different skill needs, from management to operational staff, across all skill levels, and that includes formal and informal skill development"
(Martin-Jenkins, 2020b, p. 74)

Industry focus one: wood manufacturing

Wood manufacturing includes solid wood manufacturing and wood panel and plywood manufacturing. It employed a total of 20,942 people in 2021. Solid wood manufacturing works with solid timber, timber processing and timber products including log sawmilling, finishing and wholesaling. It employs the bulk of total employment with 18,913 jobs in 2021. Wood panel and plywood manufacturing works with engineered wood products, panels and veneers and employed 2,029 people in 2021. Overall, employment numbers have been flat in the last three years with job openings forecast to increase only slightly through to 2027; most will be replacement positions. Like many commodity industries, wood manufacturing is undergoing rapid change, as many of the large players size up, and become increasingly mechanised, needing fewer workers per wood unit output. Smaller sawmills which can't compete are closing.

"I liken it to the impact a supermarket has on corner dairies" - Employer

QUICK STATS

Gender imbalance

Wood manufacturing employment is strongly male-dominated with **83.7 per cent** of its workforce being men. This has long been the case

Aging workforce

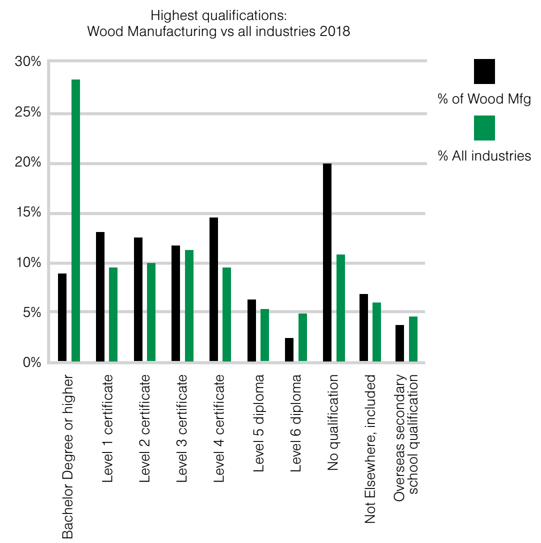
There is a higher proportion of people aged 45 - 64 years in wood manufacturing (**41.6 per cent**) than for all industries in NZ (37.8 per cent)

Proportionate ethnicity

High numbers of Māori and Pacific employees
In 2018, Māori accounted for 23.2 per cent (4,747) of the workforce – considerably higher than 13.5 per cent for all industries. Pacific peoples accounted for 9.4 per cent (1,913) of the workforce, compared to 6.5 per cent for all industries

Qualifications

Many workers have no qualifications
One in five employees have no qualifications – nearly twice the number for all industries. There are higher proportions of employees with certificates level 1 to 4, particularly level 4



Physical hands-on work

More than a quarter (**28.0 per cent**) of employees are labourers, significantly higher than 10.7 per cent for all industries; **22.2 per cent** are machine operators and drivers, compared to 12.6 per cent for all industries

Wood manufacturing has been identified as a priority for Taranaki, Bay of Plenty, Tai Poutini West Coast, Ōtago, and Murihiku – Southland RSLGs, primarily through the lens of adding value to forestry resources via further processing and manufacturing. Many of these are within broader 'food, fibre and whenua' sector priorities, meaning the role of wood manufacturing and any associated actions will differ across regions. In addition, Nelson – Tasman RSLG has signalled a future focus on forestry and associated wood manufacturing.

Potential for innovation

"Wood manufacturing contributes to a range of New Zealand's social and environmental objectives. It adds value to raw materials (logs); a growing proportion of the plantation forest is certified as sustainable; over 70% of the energy used comes from biofuels (mainly wood residues); and the transfer of carbon into useful products makes a significant contribution to NZ's target of a zero-carbon economy by 2050"
(Martin-Jenkins, 2020b)

"There is opportunity here for the industry, and specialisms in the workforce, to drive continued improvements in products and packaging that will reduce environmental impacts across other sectors. A second opportunity for the wood manufacturing industry lies in "partnership with the construction sector [and a forecast] growing demand for prefabricated housing"
(Martin-Jenkins, 2020b)

EMPLOYER PROFILE

Bruce Larsen

General Manager, Northpine, Waipu

I left school for a cadetship with the Forest Service and have worked in forestry and then wood manufacturing ever since. I started as a labourer, and then was supported to attend university, and bonded to the service once I graduated. The training was great, both the study and the different holiday jobs.

It's vital to invest in staff – maintaining a workforce is one of the biggest challenges in the current climate. Work in a sawmill is hands-on, and physical – people can find easier jobs, so this is where training comes in, to help them make their way up the ladder.

There's a lot of opportunities in wood manufacturing for small-medium operators like Northpine – we have 70 employees, at least 10 more than two years ago. We've grown by actively seeking niche markets, with smaller quantities of customised and specialised products and treatments that larger organisations can't accommodate. A recent project has been providing beams and decking for a new wharf at Mangonui, where the specified dimensions were not industry-standard – our work units are flexible enough to adjust to small runs. While most of our work is for New Zealand's construction industry, we have a small export trade to Australia and the Pacific, and hope that our agility in meeting market needs will see a steady and continued growth as we emerge from the impacts of the pandemic.

"As a manager, I am committed to the importance of learning and gaining qualifications for our staff; at least 50 per cent of our workforce would be actively completing professional modules at any time."

What wood manufacturing employers would like to see from vocational education:

- Programmes focused on the future of work
  "...there could be more inclusion of technology skills now that the sector is moving into Industry 4.0"
  – Employer

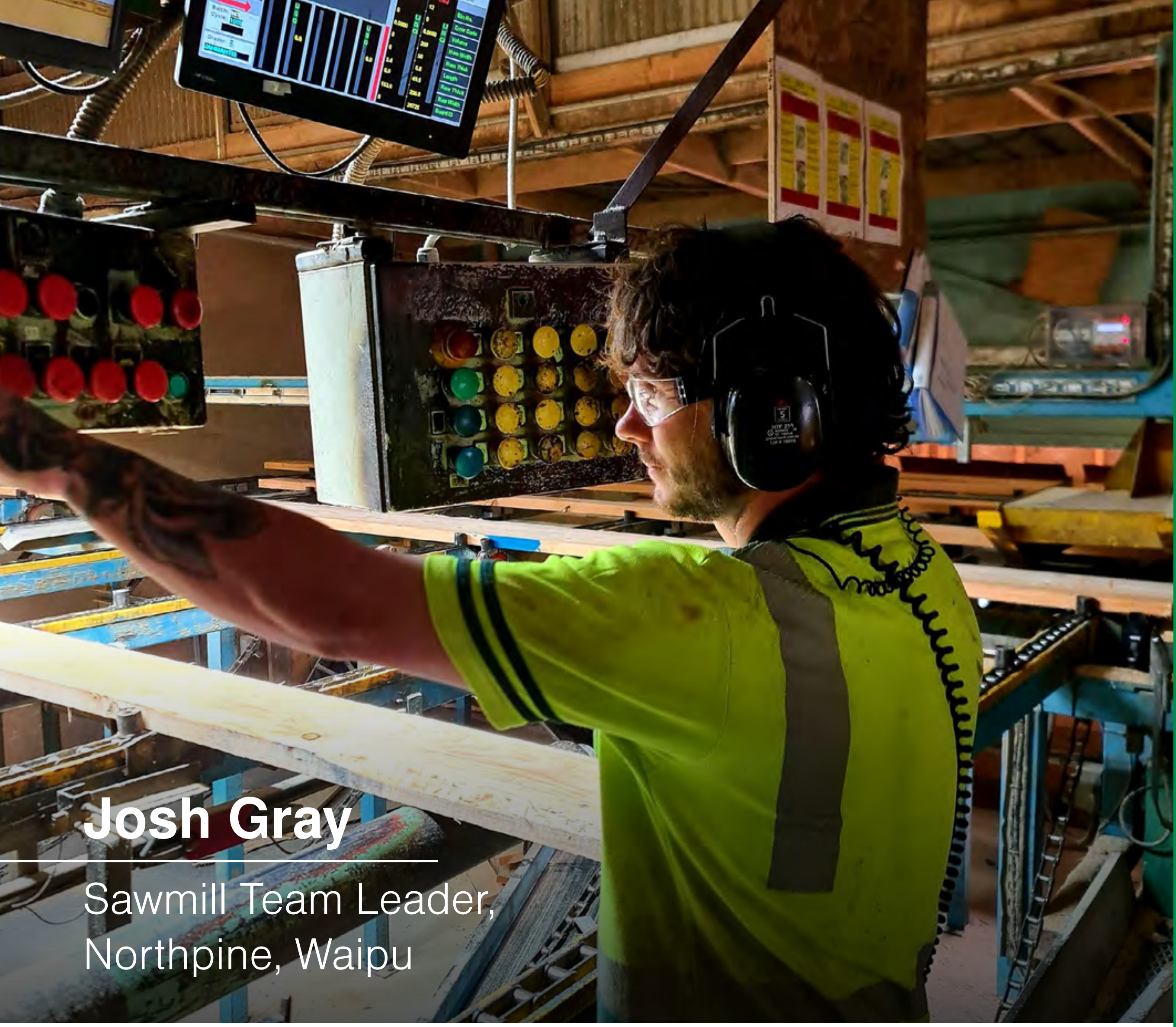
- Stronger foundation and employability (soft) skills
  "...more support and funding behind literacy and numeracy training/programmes"
  – Employer

- More support for on-the-job training
  "...struggled to find the right tools and support to 'train the trainer'"
  – Employer

- Partnership and engagement with industry
  "Advisory groups. We were happy with the previous system"
  – Employer

- Fit-for-purpose training for the factory of the future
  "We don't yet know the answer to what the ideal workforce [will be], but what should come out of the [RoVE] reform is how we define the skill base necessary for manufacturing as we move forward... the potential for a ten-times increase in productivity through new methods – not just slow, incremental progress"
  – Employer

- One of the employers from our Māori business/iwi/hapū industry participants emphasised urgency:
  "Issues around recruitment and work-readiness mean a lot of processors will start to look at immigration for entry and trades levels, not good for our young people in Kaikohe, Kawakawa. Need an all-of-government approach, not just the education sector"
  – Employer



Josh Gray

Sawmill Team Leader, Northpine, Waipu

LEARNER PROFILE

I love the work. It's not what I thought I'd be into, but once I started, I got hooked...I left school with NCEA Level 2 not knowing what I wanted to do. I did a mechanics course at NorthTec, but it wasn't for me, so I did fill-in jobs for a bit and then applied to Northpine, because I had mates working there and they liked it. I started as a floater, moving around different stations, and found I really liked working in the sawmill. Seven and a half years later, I'm Sawmill Team Leader, responsible for a team of 15 – daily work plans, overseeing cutting orders, managing staff issues...

I started in my second year and in 2020 I completed my NZ Certificate in Solid Wood Manufacturing Level 4. Now I'm doing some one and two-day leadership courses. There's a lot of support from Northpine, you don't get much time off but you can go to the managers for help, and they absolutely want you to succeed.

What I like about this job is, we're never short of work, I have never been worried about job security or quiet times: the demand is high – higher than we can produce. And the culture here is great: Northpine is heavily into community work, sponsoring sports teams. Everyone that lives around here knows the Northpine logo.

"You definitely have to put your all into it if you want to move up the ranks. A big part of my career has been studying alongside work."

Industry focus two: print

Print sector jobs include screen and offset printers and machinists, binders and finishers, multimedia designers and graphic pre-press workers. Employees include those working with computers to prepare text and designs for printing, as well as those who set up and operate printing machines.

QUICK STATS

A declining workforce

- **10,537 employees** - a steady decline for over 20 years
- Employment in print is forecast to continue its decline with no new jobs expected in the years through to 2027; job openings of slightly more than 500 each year will be replacements

Qualifications held

The change in qualifications held, mirrors that of the wider MEL sector: more workers have degrees or higher, and fewer have no qualifications. The number holding level 4 certificates declined by 828 between 2013 and 2018

GDP

Both the dollar value and the contribution to the national economy are declining: in 2021, this was $1.059 million, 0.32 per cent of GDP

Roles

Nearly half of the print workforce are technicians or trades workers; 29.9 per cent are professionals and managers

Gender imbalance

34.9 per cent of the workforce are female

Proportionate ethnicity

Māori and Pacific peoples are underrepresented

Nearly three quarters (73 per cent) of print employees were European in 2018; 10.1 per cent were Māori and 8.1 per cent Pacific peoples – lower than proportions across the total Kiwi workforce

Aging workforce

62.4 per cent are aged 40 years and over

The print industry faces significant challenges:

- Historically, the printing industry was central to both publishing and advertising, but recent decades have seen the growth of digital platforms, with a seismic shift in consumer behaviour and demand – away from print media.
- Printing operations have undergone rapid technological change and automation – further reducing traditional print occupations.
- Globalisation – as costs of manufacturing and employment, and a skills shortage has risen in Aotearoa, some print companies, especially those with overseas ownership have closed local operations or moved elements abroad.
- A perception that print is bad for the environment; while most print companies have taken steps to lower environmental impact, minimise waste and source sustainably produced raw materials, this message doesn't always flow through to the public.

Opportunities in print:

- There is a continued public demand for traditional printed products: books, magazines and newspapers. Other customers include government departments, agencies and corporate entities

  "E-readership has peaked e.g. kindles so this is not as much of an influence now"
  – Employer
- The industry is an early adopter of new technologies (requiring specialist skill sets), including digital printing, large format printing, 3D printing and flexographic printing for packaging

  "New technology lets us do shorter runs with more competitive pricing e.g. bespoke products and other forms of print"
  – Employer

What print employers want to see from RoVE:

- Involvement and partnership

  "[We want] to be heard! Technology changes quite quickly and we need [training] to be agile to meet skill demands. The print industry is niche, and we want to be influential in developing the qualifications in our industry. [We] would love to get assistance in recruiting – identify pipeline talent, lift our profile.
  Yes, we would like to collaborate in any discussions regarding pathway mapping or student profiles"
  – Employer

- A focus on digital skills

  "Love the younger workforce coming through that have an intuitive technology knowledge... Digital technology knowledge is a requirement"
  – Employer

- Better interface between providers, provider liaison staff, and industry – including off-site experiences

  "There used to be a local person... who organised apprentices to get together for industry tours. This meant apprentices could build a network, learn about the variety of print operations in the region. This needs to come back. PrintNZ used to have a print building in Wellington and block courses were run there – that needs to come back also."
  – Employer

- Better promotion of the industry and career opportunities

  "Print industry not really visible to young people and they realise they have a part to play here"
  "Needs a visible pathway – PrintNZ Board would be keen to be involved"
  – Employer

INDUSTRY REPRESENTATIVE PROFILE

Ruth Cobb

Chief Executive,
PrintNZ

One of the biggest workforce challenges for print is the misconception of what it is and what it covers. We are not just newspapers, books and magazines – in fact, we are the most visible, invisible industry out there! In everyday life, we are surrounded by products created by the printing industry, and you could buy very little, if anything, without the signs and packaging we create.

Print can produce absolutely anything, from one of something to a million of something, and every single job is different. There are a unique set of skills that new recruits learn to be successful in an industry that is an early embracer of a spectrum of technologies, and training is so important.

PrintNZ is a strong advocate of training, from certificates and apprenticeships to higher qualifications in production and management. What we need from Te Pūkenga and Hanga-Aro-Rau is a strong and collaborative partnership that helps us to promote our industry as a strong, vibrant and viable career choice. We want to attract more young people who understand that they don't just train to be a printer and it stops there, there are many pathways into and through the industry that create a lot of opportunities for a very sound future.

"You'll never live in a world without print!"

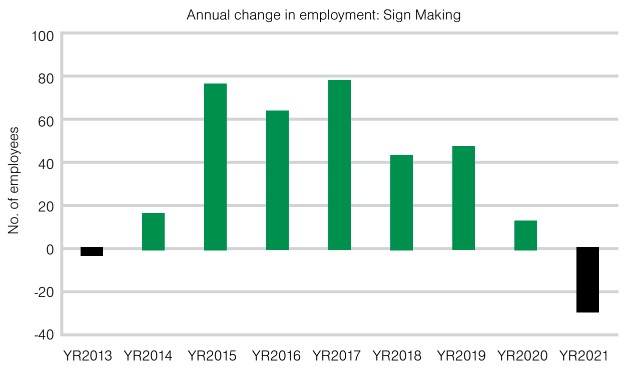
Industry focus three: sign making

People in the sign making industry design, print and install signs in a range of materials, for indoor and outdoor use. Sign making is a niche sector that is continuing to change and innovate with the introduction of new technology and processes.

QUICK STATS

Slow and uneven employment growth

- **2,005 employees** in 2021 – a fall of 29 from the previous year. Given the low number employed in this sector movement in employment is better viewed by change in the number of employees:



- Growth in the sector is forecast to continue albeit slowly; around two thirds of total job openings (less than 200 annually) will be replacement positions

GDP

The contribution to the national economy has long been around 0.07 per cent ($222 million in 2021)

Gender imbalance

34.9 per cent of the workforce are female

Proportionate ethnicity

Maori and Pacific peoples are underrepresented

- 80.6 per cent of employees in sign making were European in 2018
- Māori accounted for 9.5 per cent of the workforce, lower than in the total workforce of 13.5 per cent
- Pacific peoples accounted for 4.8 per cent of the workforce, lower than in the total workforce of 6.5 per cent

Aging workforce

In 2018, nearly half of its workforce were in the 30-to-49 year age groups notably higher than for the total workforce

Roles

Most employees in sign making are technicians and trades workers with a small percentage being labourers. A narrow range of occupations demonstrates few opportunities for career progression within the sector

Qualifications held

The change in qualifications held, mirrors that of the wider MEL sector: more workers have degrees or higher, and fewer have no qualifications. The number holding level 4 certificates declined by 828 between 2013 and 2018

A common and key challenge:

- **Finding new recruits in a tight and competitive labour market.** One employer told us he had run 200 job advertisements in recent years, another said they recently had a job vacancy for a print production specialist, but in four weeks had only two applicants, neither of whom were suitable.

What sign making employers are looking for, from RoVE:

- **Better and more accurate promotion of the industry to learners**

  "Need to update the profile of the print and sign making industries to reflect what they currently entail – new technologies, cleaner workshops, less manual work due to new types of machines"
  – Employer

- **An updated apprenticeship and more focus on signage installation.** One employer told us they felt it was "dumbed down too much" and didn't cover the scope required. Others felt there were lots of modules that could be consolidated, suggesting more time spent on legislation, health and safety and project management. However, another employer told us they preferred to provide their own in-house training:

  "... necessary skills and knowledge around construction, health and safety, working at heights, govt and council regulations are picked up by experience on the job. People don't often understand what is required until they have come into the business"
  – Employer

Industry focus four: apparel

Apparel manufacturing covers wholesales textiles, clothing, footwear, knitted products, and accessories with an annual GDP value of $759 million in 2021.

Number employed	Percentage of women in workforce	Māori	Pacific peoples
9,061 (19,879 in 2000)	78.2 per cent	11.4 per cent	7.2 per cent

(All New Zealand workforce, Māori are 13.5 per cent and Pacific peoples 6.5 per cent)

Key trends in the industry include:

- A marked increase in support for New Zealand brands and demand for New Zealand manufacturing in recent years – leveraging New Zealand's values-based, innovative reputation
- A shift towards a low-carbon circular economy which will require skills to be utilised in inter-disciplinary and collaborative ways.

Key challenges include:

- A critical shortage of skilled machinists, along with other technical skills required for manufacturing: cutting, patternmaking, knitwear and a good understanding of how garments go together. There is also increasing demand for digital and computer-aided design (CAD) skills.

> *"I could take on 10-15 machinists – the work is there, but the skilled machinists aren't. They need experience, and to be good problem solvers."* (Mindful Fashion, 2022, p. 2)

- Rising shipping costs and lengthening delays from offshore supply chain partners – impacting workflow management, capacity to meet seasonal schedules, and production costs per unit
- A poor environmental track record: New Zealand sends about 100,000 tonnes of clothing to landfill each year – about 44 kilograms per person. Textiles create about three times their weight in CO_2 in landfill – so while they make up 5-6 per cent of landfill, they produce about 30 per cent of the carbon impacts.

INDUSTRY PROFILE

Mindful Fashion is a collective of over 70 designers, brands, and manufacturers (including some of New Zealand's leading names with a large international following), and we regularly connect with more than 200 other businesses outside our membership – we all want the same thing: an apparel manufacturing industry that is inclusive, sustainable, and thriving. Our members identify the current skills landscape as one of our greatest vulnerabilities.

How do we know? In 2021 we convened a Workforce Development Working Group and conducted a series of surveys and interviews: the final report is available on our website, mindfulfashion.co.nz. We now have clear evidence that our employers are finding a "massive shortage" in people with the right skillsets, and "a lack of understanding around what makes a great garment" (ibid. p. 2).

The current mainstream pathway into the industry is via tertiary educational institutions – and while this provides introductory sewing skills, there is almost no provision for advanced and industry-level skills development. The classroom is very different from the workplace, and machinists need to learn the way to sew that industry needs them to, on-the-job.

Higher level qualifications tend to emphasise design and creativity, often at the expense of technical skills: "Most grads want to be designers. But development is where the need is. They don't understand the development role or opportunities" (ibid. p. 5). An additional work-readiness concern noted by many respondents was the deficit in soft skills, such as time management, communication skills, problem-solving, critical thinking, and a broad understanding of how business works. Resilience too – the ability to respond, adapt and evolve to the rapidly changing world we're living in.

We would like to see vocational education that provides skills development in advanced machining, pattern-making, grading, CAD and digital design skills, as well as the technical skills (including Adobe and digital spec skills) needed for product development roles. We'd like apprenticeships and/or internships, in particular for machinists. Perhaps a hybrid model where learners attend classes two or three days a week and do practical experience for the remainder. We'd like to help train the people who will work for us – and at the end of this time, they will have workplace experience and know-how – that's what employers are looking for.

"The classroom is very different from the workplace"

Hanga-Aro-Rau's engineering sector coverage includes welding.

Engineering

Engineering in Aotearoa[5]

The engineering sectors allocated to Hanga-Aro-Rau are varied and include engineering design, consulting services, scientific testing and analysis services, automotive electrical services, automotive body, paint and interior repairs, and electronic and other equipment repair and maintenance (excluding domestic). It also includes clothing and footwear repair.

Contributed

$20 billion in GDP

in 2021. The dollar value of engineering's contribution to national GDP has been growing annually since 2013.
Its proportion of the national economy has however been in slow decline over the last two decades from 7.4 per cent in 2000 to 6.2 per cent in 2021.

Total employment reached a new high in 2021 exceeding

172,000 employees.

- The growth in engineering employment is forecast to continue with an addition of between 3,500 and 4,600 new jobs each year.
- Total job openings each year are forecast to be in excess of 11,000 (two-thirds are replacement jobs) and will account for 7 per cent of total national job openings.

Large gender disparity

(2021)

MALES	FEMALES
142,286	29,796
82.7%	17.3%

A specialised trade workforce

- Nearly half of the engineering workforce were technicians and trades workers in 2021; this contrasts with 12.6 per cent for all New Zealand industries
- Only 4.3 per cent were labourers, contrasting with 10.7 per cent for all industries.

All major ethnic groups increased employment between 2013 and 2018.

Māori employment grew by more than 5,000,

a 42.4 per cent increase, and Pacific employee numbers grew by 3,000, a 54.8 per cent increase – but both groups are still a slightly lower proportion of the engineering workforce than in the total NZ economy.

Age group demographics

are broadly aligned with NZ's total workforce; the biggest differences are a 2.6 per cent lower proportion of youth (15-24 years), and a 3.4 per cent larger proportion in those aged 25-54 years.

In 2018 there were

18,400 employees

in engineering with no qualification
- a similar proportion for all industries (11 per cent)

5 All data in this Engineering section is aggregated from CEBR (2016); Deloitte (2021); EMA (2022); Infometrics; MITO (2019; 2021); PWC (2020); StatisticsNZ. Unless otherwise attributed, all quotations are from Hanga-Aro-Rau industry engagement contributors.

Key workforce challenges include:

- The effects of COVID-19 and both high national and international inflation levels mean a **rising cost of materials and equipment, and supply chain disruptions** – impacting margins and employment stability.
- Deloitte US (2021) estimate **a loss of 20 per cent of engineering jobs to the pandemic**, and a slower recovery rate than many other labour-competing industries, due to the sheer size of many projects and the long-term effect of delays, cancellations, projects being scaled back, or postponed. While this trend is not thus far evident in New Zealand's engineering employment figures, this is new and emerging international data and may signal an increased threat for 2022/23.
- **Pervasive talent shortages**, especially in 'next generation' digital technologies and specialist roles. As the industry creates new digitally-oriented roles, filling the skills gap may require upskilling the existing workforce, and widening qualifications which feed into engineering recruitment and staffing. In our survey, **81 per cent** of the engineering employers who responded identified "recruiting labour for the skills I need" as their biggest labour market issue.

Key trends in engineering which impact the workforce are:

- **Environmental and sustainability drivers,** including upskilling to service the growing number of electric vehicles in the country
- **Prefabrication and modular construction** replacing on-site, unique construction, requiring specialised plant facilities.

What our engineering employer respondents would like to see from vocational education:

- Most common factors wanted from vocational education reform were **youth oriented** – improved relationships with schools, clearer pathways, better training and relevant qualifications, including micro-credentials.
- All respondents in our interviews had clear ideas about development pathways for employees; the results emphasise **the need for industry to be involved** in first-level decision-making, alongside Hanga-Aro-Rau, providers and the Government.
- There was consistent agreement new recruits often have **a lack of industry knowledge and soft skills**: turning up on time, able to take instruction, and generally *"Conscientious, good attitude, willing to learn"* – Employer.
- Interviews with employers known to have Māori owners or have a high number or proportion of Māori staff suggested that **Māori were not encouraged into the engineering industry.** When entering with low skill sets and no qualifications, this means that wages are low, so staff don't stay. These respondents would like to see qualifications promoted at school and held in higher regard, and a range of opportunities for this to occur in trades academies, through recognition of prior learning, and options for fast-tracking foundation credentials, such as licences.

Connection to Regional Skills Leadership Group Priorities

The following RSLGs have identified engineering as a priority: Waikato, Tai Poutini - West Coast and Southland - Murihiku. In addition to the direct engineering sector, engineering skills support many industries throughout Aotearoa, particularly into the wider manufacturing and processing industries, and link into significant regional projects, for example, the Dunedin Hospital Rebuild and redevelopment of Hillside Workshop in Dunedin.

"Engineering is integral to modern life"

PWC, 2020, p. 5

"Engineers make things, make things work and make things work better. They also use their creativity to design solutions to the world's problems and help build the future"

CEBR, 2016, p. 8

Industry focus five: mechanical engineering

Occupations in our mechanical engineering subsector include mechanical engineers, draftspersons and technicians, fitters and turners, blacksmiths, electroplaters, metal casting workers, toolmakers, and metal engineering process trades workers.

QUICK STATS

Slow, steady growth

23,134 employees, 1.0 per cent of the total workforce. The number of businesses and jobs in mechanical engineering has grown annually since 2013 including during the pandemic. The forecast is for continued slow growth of new jobs and around 1,000 replacement jobs each year.

Qualifications

- More of the workforce had degrees or higher in 2018 (17.7 per cent) than 2013 (13.8 per cent)
- 346 fewer employees had no qualifications
- Level 4 certificate holders declined by 700
- Level 3 certificate holders increased by 900.

Gender imbalance

Less than 4 per cent of the workforce are female; the related occupations show long-held dominance by males.

Roles

In 2021, three quarters of the mechanical engineering workforce were technicians or trades workers, with most of the remaining staff being professionals.

Aging workforce

More than half (57 per cent) of the workforce are 40 years or older. The proportion of employees in the age groups 45 years to 59 years are notably higher than for all industries.

Proportionate ethnicity

In 2018, nearly three quarters of the workforce were European, 13.6 per cent Māori and 7.6 per cent Pacific peoples - all similar to the national workforce.

Key feedback from industry engagement interviews and survey:

- Many new recruits lack general industry knowledge which must be built up before apprenticeships commence.
- Vocational education needs to include better links with industry, including more visits from account managers, and qualifications aligned to current practice.
- A need for a post-apprenticeship pathway such as an advanced trade certificate with onward movement into a degree.
- Micro-credentials to support incremental learning achievements and specialised skill sets.

LEARNER PROFILE

Azaria Weston

Ngaruahine. NZ Certificate in Engineering Fabrication (Level 4) - Light Fabrication apprentice at Longveld, Waikato

I went to an all-girls school and no one like me ever came to talk to us, I didn't even know what mechanical engineering was. I left school at 16, and tried a couple of training courses, and then we got taken to a Trades Expo, and a guy from a local company was so enthusiastic. He told us there was no reason a woman couldn't do the work, and invited us to go and visit – I ended up doing a three-month work experience placement and loved it. There were three other women there and I enjoyed working with them – we still keep in touch today.

I moved to Hamilton and did a mechanical engineering level 2 course, the level 3. The tutor was really motivating and believed that women can do anything – in fact, he told us that women are especially good at lots of parts of the work because they have an eye for detail. I'd previously studied and completed both personal training and barista courses too, so was able to use these qualifications to bring in money while I studied.

I was lucky to get taken on at Longveld through a Work and Income New Zealand Incentive scheme "Mana in Mahi" which helped with funds for my training, and now I've done two years of my apprenticeship and I'm loving every day.

Keeping up with the guys at work is important to me – they are men, physically, naturally more fit, so you have to work a bit smarter. You don't have to pick up ten things on your shoulder at once, you can do two at a time, and your back's not sore the next morning. Another thing is, men are more afraid to ask for help – but I'm always thinking about the next step, and who can I ask. It's okay to say, "hey, I don't know."

> ***"Every day I'm out of my comfort zone, and growing like crazy"***

In our workplace there's plenty of diversity. We're a close workplace and I enjoy it. Lots have been here over five years, and the office keeps it really transparent. If there's an opening and job roles come up, [the owners] always look internally first, they say, anyone can apply.

I will definitely keep doing courses once I finish my level 4. Knowledge is power. I love to be constantly learning. And also teaching others: by sharing, you understand it better yourself and you learn different tips too. I'd like to be a trainer.

Pam and Les Roa

Ngāti Maniapoto.
Longveld, Waikato

We've been in business now for over 30 years, as founders, owners, and managers, and we still love what we do. We do a lot of training in-house, especially around technical skills, but what we'd really like to see from tertiary providers is more attention to 'commercial nous' – learners who understand productivity and can turn up on a daily basis knowing the basics of how to apply initiative to problem solving. We know many of our rangatahi come from challenging backgrounds, so pastoral care needs to be part of this preparation, too. Pam is a member of the Waikato Regional Skills Leadership Group, and knows many employers in our cluster share the same concerns.

We think our values help us a lot in our workplace. A core principle of our operations is 'wholeheartedness'. We want people to bring all of themselves to work: "Who you are at home is who you are at work". It's about our team finding their identity and feeling that they have control over their life choices. It's also an approach that fits well in our diverse, multicultural workplace.

What we are working on now is the incorporation of widespread leadership training and succession planning – not just for our roles, but for the business overall to survive and thrive into a second generation. We are developing a plan for all our staff, whatever their role, that is transparent to everyone. We have teina/younger staff being mentored by older tuakana (55+) with long-term, trade-trained expertise, and there's a great transfer of knowledge, as many newer learners have strong digital competencies and are more confident with new technologies. Alongside this sort of on-the-job training, we'd like to see micro-credentials that keep track of this progress and value the talent in our industry.

"A lot of our satisfaction comes from our 75-strong workforce, having young people come in, finding they have an affiliation for the industry, and helping them grow and learn through apprenticeships and other vocational training."

MECHANICAL ENGINEERING EMPLOYER PROFILE

Industry focus six: automotive engineering

Automotive engineering includes automotive electrical services and automotive repair and maintenance. Occupations include auto electricians, motor mechanics and tyre fitters.

QUICK STATS

Slow, steady growth

36,297 employees in 2021, **1.4 per cent** of the total workforce

- The value of automotive engineering to the economy has long been increasing with only a small (-1.6 per cent) dip in 2021 falling to $2,902 million
- Despite this growth its contribution to the total economy has been slowly declining and remains at less than 1 per cent
- The number of businesses continues to grow, exceeding 9,000 for the first time in 2020, increasing despite COVID-19
- An additional 1,000 new jobs are forecast for 2022 after which annual increases in new jobs will be around 800 on average through to 2027
- Replacement job openings are forecast to be around 1,600 each year providing opportunities for new entrants

Aging workforce

Aging workforce: automotive has a similar age group profile as for all industries

Gender imbalance

Females account for **11 per cent** of automotive engineering employees: little change since 2013

Qualifications held

Qualifications held follow the same trend evident across the MEL sector:

- In 2018 there were 1,200 more automotive employees with degrees than in 2013
- The number with a level 3 certificate nearly doubled from 2,000 to 3,800
- The number with level 4 certificates fell by 1,700 in the five years to 2018

Roles

- Nearly three quarters (72 per cent) of the workforce are technicians or trades workers
- Half (18,000) the workforce are motor mechanics and 10 per cent (3,420) are diesel mechanics

Proportionate ethnicity

- Europeans dominate the sector accounting for 80 per cent in 2018
- Māori employment grew by nearly 1,200 between 2013 and 2018 (a 46 per cent increase)
- Pacific peoples' employment grew by slightly more than 500 in the same period (a 55 per cent increase)

The automotive engineering industry is facing a raft of challenges, many of them common to the wider MEL sectors: an aging workforce, a male-dominated industry, the COVID-19 pandemic, and a skills shortage. In addition, vehicle technology is becoming more complex, including low emission vehicles and fuels, electric and hybrid models, biofuels and driverless vehicles. The industry will need more highly skilled technicians to support this as well as managing new health and safety risks (e.g. new fuels, gases and high voltage, heavy batteries), and the legislative and regulatory framework which govern these.

What the industry is looking for, from RoVE:

- Basic employability skills and new recruits who have a fundamental understanding of work

  "Businesses still want pre-trade...the basics around health and safety, how to maintain a tidy workspace, do minor stuff – removing and replacing our parts"
  – Employer

- Like to see more work done at school level to attract people into the trade

  "Change the narrative on what the business is now compared to 10-20 years ago – emerging technology etc".
  – MTA

- A stronger relationship with schools and polytechnics nationwide

  "A voice from industry. Quals don't get developed by people in offices, it needs to be industry-driven"
  – NZDF

- Lift the profile of the industry to be more appealing

  "Look further into the industry, it's not just nuts, bolts and vehicle servicing.....
  there is a whole lot more that New Zealand could get involved in within the industry"
  – Māori Business Employer

"The automotive industry will need to grow the levels of those participating in formalised industry training from 7.5% currently to at least 10%. This increase needs to occur to fill gaps created through natural attrition expected with an aging workforce and to attract an increased share of the younger generation"

MITO, 2021, p. 16

LEARNER PROFILE

Yanné Logan

Studying level 3 automotive engineering

Photo courtesy of Rotorua Daily Post/Andrew Warner

It's great being an older learner. At first, I was worried about going back into study, switching the brain back on, and being with people straight from school who knew about learning, research, how to use Chromebooks...but actually, I feel that being an adult with life experience has given me more backbone. I've got more ability to respect the situation, to respect where the tutor's coming from, to ask for help and to help another student.

I might be one of the oldest in the class, but what's surprised me is the number of females: it's almost a third of my class. We joke about how cool it would be to have a women-only run workshop, where everything was pink and flowery. And joking aside, I actually think there'd be quite a market for it! Back when I was starting my working life, I couldn't have imagined it.

I worked in early childhood education and as a teacher aide for years – both traditionally women-dominated professions. Then with my two sons at secondary school, my feminist leanings came out. I'd always wanted to know what was going on with my vehicle – I hated relying on men and being 'mansplained' to, so I really started doing this course for personal interest and satisfaction. Now I'm totally enjoying it and can see myself working in the industry and carrying on to a level 4 apprenticeship.

My sons are proud of me, and I'm chuffed that they are starting to think of their own vocational pathways.

"...I feel that being an adult with life experience has given me more backbone"

EMPLOYER PROFILE

Jo Bailey

HR Business Partner,
Penske NZ

Turnover is high in our industry: there is a shortage of qualified mechanics and the cost of recruiting and training is tough on business. We particularly note the gap of experienced mechanics in their late 30s and 40s, the ones we need to train and mentor our apprentices. Companies like ours are doing everything they can to retain these staff.

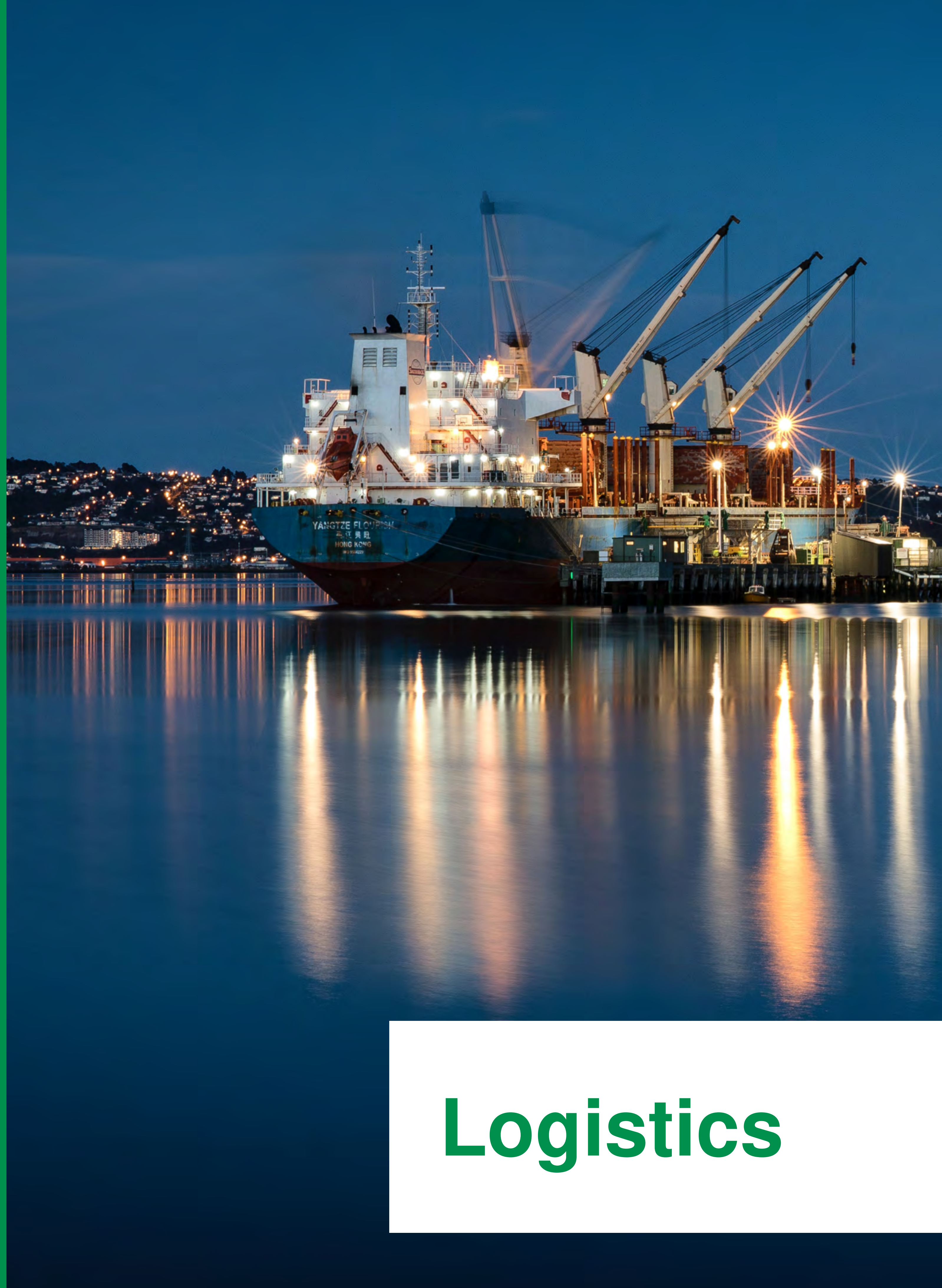
In 2021, we conducted an engagement survey with our workforce which reinforced a lot of measures we were already taking and paved the way for some new initiatives as well. People told us they wanted to know about their career progression opportunities within the business, that they mattered, and that we could see a pathway for them in the business. Some mechanics are happy to be on the tools until they retire, others were looking for variety, and a move from workshop to office. It's about knowing your people.

In recent years, we have taken on more apprenticeships across our branches, and the Government's 2020 'Apprenticeship Boost' scheme has helped a lot. Once our apprentices gain their level 4 certificate, we have a range of other training opportunities. The MAN and Western Star truck brands we sell and service have technical training modules that we support our staff to complete.

We have an internal 'Leading Hand' programme, to support roles with added responsibility, such as managing teams. Then, we have a 'Foundations, Advanced Foundations and Leadership Development' courses for nominated staff who show promise and who are keen to move through the business. We also advertise all our vacancies internally first, and anyone can apply. Where people aren't ready yet for a specific role, we have formal sessions with them to make a plan to help them get there.

"Fifteen years ago, we'd see CVs where people had been in the same job for 20 years. That is so rare now."

Training is a combined effort: classroom and workplace, theory and practical and takes experience and expertise. We are always looking for new ways to retain people within this industry and to ensure they are satisfied in their roles and are being challenged.



Logistics

Hanga-Aro-Rau's coverage areas include stevedoring and other port operations.

Logistics in Aotearoa[6]

The Hanga-Aro-Rau logistics industry includes road and rail passenger and freight transport, water and air transport, postal and courier services, freight forwarding and customs agency services, and stevedoring and other port and terminal operations. It also includes warehouse and storage services (including grain), internet access, data storage, processing and web hosting services.

The impact of COVID-19

Logistics has been the most affected of Hanga-Aro-Rau's sub-sector groups, with both the dollar value and the percentage of its contribution to the national economy falling significantly in the last year:

GDP fell from $23.3 billion in 2020 to $20.7 billion, in 2021, an 11 per cent drop

Its contribution to the national economy fell from 7.1 per cent in 2020 to 6.4 per cent in 2021

The logistics workforce grew by 2,290 in 2020, exceeding 170,000 for the first time **but nearly 5,000 jobs were lost in 2021** (a drop of 2.9 per cent). Forecasts suggest that a return to 2020 levels will not occur until 2024 – but with strong growth thereafter

Half of the workforce are machinery operators or drivers. The second largest occupational group (17.3 per cent) is clerical and administration workers

MALES	FEMALES
126,104	39,486
76.2%	23.8%

Diversity: gender disparity still the biggest issue

In 2021, the proportion of females in logistics was **23.8 per cent** compared with 46.9 per cent for all industries in New Zealand

The proportion of those aged 45 years and over is slightly higher than for all industries, and slightly lower for the younger age groups. There is recognition that many of the drivers are in the older age group

The proportion of Māori and Pacific peoples is slightly higher than for all New Zealand industries, 16.3 per cent and 9.9 per cent respectively – both increased between 2013 and 2018: Māori employment grew by 6,000, a 30.2 per cent increase; Pacific peoples employment grew by 5,300, a 49.1 per cent increase

Key workforce challenges include:

- Due to the pandemic, most commodity products such as building supplies, infrastructure, and retail businesses experienced supply chain disruptions – leading to **reduced operations and closures for users of logistics services**. For example, the Forest Industry Contractors Association, representing one of the major freight consumer groups, estimates that about 30 per cent of the country's logging activities have halted due to supply chain delays (ibid).
- **Driver shortages and an aging workforce**. Many employers we connected with say they have become disillusioned with the qualifications and new graduates: they prefer to provide their own training.
- There is **strong competition** in the sector, which affects workforce stability and staff turnover. The ability to pay competitive remuneration is impacted by 'margin pressure' driven by rising costs – especially fuel. Cost pressures also mean that logistics and freight operators are holding onto their trucks for longer:
  "The average age at which trucks leave the fleet has increased from 20 to 24 years since 2001... which is relatively old internationally" (ANZ, 2019, p. 12).
  "Competitive contracting drives wages down" – Employer
- Growing **pressure to become more sustainable** – transport and logistics make up nearly 20 per cent of total emissions – the majority from road transport. Urban freight electrification is likely to be faster than heavy-duty long-haul freight, where battery weight and travel range are more of an issue. Biofuels and hydrogen options are likely to provide a nett reduction in emissions of no more than 5 per cent (ibid).

Key trends in logistics which impact the workforce are:

- **The growth of e-commerce**. As of January 2021, New Zealand had 4.55 million internet users and a 94.0 per cent internet penetration rate. Online shopping was already increasing rapidly, but pandemic lockdowns and shopping restrictions broadened the purchaser base. Countdown supermarket group is now the biggest online retailer, and New Zealand Post (CourierPost) the largest provider (ibid).
- Government initiatives to support **growth in the regions**. Growing population, economic growth and industrialisation in any region will affect the need for freight and logistics services.

What our logistics employer respondents would like to see from vocational education:

- **Like other Hanga-Aro-Rau sectors**, the most common wants from the vocational education reform relate to training, qualifications and skills; also a voice/participation in the redesign of programmes.
- Logistics employers also want to see new recruits who are more **work-ready**: in addition to the usual soft skills such as communication, attitude, and literacy and numeracy, they mentioned **the ability to drive a manual geared vehicle, and geographic knowledge**.
- Cadetships, levels 2 and 3 specialised qualifications aimed at specific roles, and micro-credentials which recognise **social on-the-job learning, supplemented by formal learning**.
- Employers noted the many challenges they are managing on a daily basis: they want **learners who are self-determining**, managing their own careers and able to document their skills and knowledge in a transparent and recognisable format.

Connection to Regional Skills Leadership Group priorities

Two RSLGs have identified freight and logistics as a priority: Waikato and Bay of Plenty. This has a strong link with the "golden triangle" connecting Tauranga, Hamilton and Auckland.

"In New Zealand, road freight is the predominant mode of freight transport and accounts for almost 70 per cent of the total domestic freight movement (in terms of ton-km) and over 90 per cent of the freight (in terms of volume/ton). Rail, although a small player in terms of employment and value-added within the wider transport, logistics, and distribution sector, plays a vital linking role between, for instance, Auckland, Tauranga, and Hamilton… the 'Golden Triangle'"
(Mordor Intelligence, 2022)

6 All data in this Logistics section is aggregated from ANZ (2019); Infometrics; MITO (2019); Mordor Intelligence (2022); StatisticsNZ. Unless otherwise attributed, all quotations are from Hanga-Aro-Rau industry engagement contributors.

Industry focus seven: road freight transport

Road freight transport is a defined category in the Australian and New Zealand Standard Industrial Classification (ANZSIC I461000) with General Truck Drivers accounting for nearly 60 per cent of employees. It also includes furniture removalists, tanker drivers, labourers, store-persons, delivery and tow truck drivers, and more.

QUICK STATS

Slow, steady growth

- The number of people employed in road freight transport exceeded **50,000** for the first time in 2020 although it dipped a little in 2021
- Annual growth was around or more than 1,000 between 2014 and 2018 but declined in the following three years, going negative in 2021
- Employment growth is forecast through to 2027 when it is expected to exceed 53,000 for the first time

Strong growth

In Māori and Pacific employee numbers. The road freight workforce increased by 6,500 between 2013 and 2018. Māori employees grew by almost 2,500 (34.1 per cent), and Pacific employees by 1,400 (58.4 per cent)

GDP contribution

Has changed little since 2013 remaining around **1.7 per cent**

Aging workforce

Road freight has notably higher proportions of employees in the older age groups (45-to-65-years and older)

Fleet size

It is a good indicator of the demand for truck drivers. In 2019, there were just over 144,000 trucks on the road, with an average annual growth of 2.5 per cent per annum in the preceding five years

Qualifications

Held follow the same trend evident across the MEL sector:

- The number of people with degrees and level 3 certificates grew notably between 2013 and 2018, by 1,835 and 2,287 respectively
- The number with no qualification fell by slightly more than 1,300 in the five years to 2018

Roles

- 71.9 per cent of the workforce are machine operators/drivers
- There are half the proportion of managers in road freight as in total industries and less than 2 per cent professionals

Large gender imbalance

The number of females in road freight reached 6,000 in 2019, **12.0 per cent** of the workforce: a new high

Key challenges include:

- An aging fleet and an increased focus on environmental sustainability as part of replacement pressure
- Persistent driver shortages – a worldwide trend exacerbated by growth in trade volumes
- A workforce which struggles to attract younger employees. The industry has what MITO (2019) describes as an 'image problem': *"The truck driving profession is perceived as being male dominated, offering poorly paid, low-skilled work and long working hours, and the cost and time required to attain a class 5 licence acts as a deterrent to many potential entrants"*
- Strong internal competition, with a large number of local operators, impacting staff retention and contributing to the decline in the number of self-employed and smaller businesses
- Keeping up with technology – electric vehicles, automation (autonomous driving systems), telemetrics and on-board diagnostic systems.

What the road transport industry is looking for from vocational education:

- Promoting career pathways to attract talent and create a sustainable workforce
  "...get rid of some of the old thinking, open up to new quals and ideas"
  – Employer

- Supporting skill development to meet current and future technological changes
  "...a system that embraces modern adult learning principles and effectively uses technology...increased flexibility with micro-credentials would be beneficial and allow organisations to create learning pathways that better align to what they and their people need"
  – Waka Kotahi representative

- Growing our people to support a high- performing and innovative workforce
  "a blend of social and on-the-job learning...supplemented by formal learning"
  – Waka Kotahi representative

- Improve retention of the workforce through skill development and career pathways
  "Ensuring programmes are fit for purpose and future-focused... focus on transferable skills rather than technical skills that won't be required in five years' time"
  – Waka Kotahi representative

- Increasing the diversity of the workforce to increase the supply of talent
  "See more opportunities to embrace all types of people into future roles – non-traditional workstreams and workers"
  – Employer

- Improving productivity through best practice sharing and collaboration
  "...working with us, working with our industry to see what actually works, what our needs are"
  – Employer

"Changing technological, environmental and Government initiatives, strong demand to move products, changing workforce demographics and a society that is increasingly environmentally aware will require a CRT industry that is responsive, adaptive and innovative to ensure continued success when planning its workforce requirements"
(MITO, 2019, p. 4)

> ***"The Transport and Logistics (T&L) sector is a key contributor to the New Zealand economy, with 91 per cent of total freight being transported by truck. There is currently no expectation for this trend to change in the foreseeable future and as GDP grows, the demand for transport services is expected to increase accordingly"***

ANZ, 2019, p.1

Graham Rule

Founder and Director, CoolTranz

Our vision for CoolTranz is a hundred-year business. I started the company eight years ago after decades in freight and logistics, with a very clear idea about the type of workforce I wanted. Today, we have 48 employees and 28 contractors, and we must be doing something right – no one's left yet! We recruit selectively and look after our staff with a range of benefits, including profit-sharing and our own internal training programme comprising 12 formal modules and a personal learning record.

This solution works for us, but it also highlights one of my biggest frustrations with the current state of industry training. There's a big gap between the standard I want new people to enter at, and what they are able to offer – and I see this as being all about soft skills. Young people need to know what commitment and resilience is. They need common sense, and they need to know about productivity and ownership. It's less about the licensing, and more about the behavioural and attitudinal skills they need to learn on-the-job.

There's a strong future for our sector, and a reform of vocational training at a national level is essential, which is why I'm ready to be part of this work.

"Retention and succession-planning is something we do every day"

Selected themes emerging from our research

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

Māori[7]

Māori, including iwi, hapū, learners, employers and our Te Tiriti partners are key stakeholders in Hanga-Aro-Rau's duty to advance a vocational education system that meets their needs and respects their mana in Aotearoa's labour market and society.

Population

- The current Māori population (living in New Zealand) is **875,300** (2021), or **17.1 per cent** of the total population
- The proportion that are working age will grow in the near future, as the current youth cohort has a higher proportion of Māori than the older age groups
- **Children currently account for 30 per cent** of the Māori population also signalling a higher wave of Māori youth soon

Earnings

Average earnings for Māori have been increasing as they have for all earners; the gap between Māori and all earners increased between 2014 and 2019, declining in 2020 and 2021 but **the average gap remains high** (around $8,000)

Industry training completions are strong

- For the period 2013 to 2020 the average completion rate for Māori learners in mining, manufacturing, logistics and other services industry training was **72.5 per cent** compared with 58.2 per cent for all programmes
- In our sectors, the Māori qualification **completion rate increased by nearly 5 per cent** in the period 2013 to 2020 with a particular upshift in 2019 and 2020

Qualifications held still lower, but improving

- More Māori have **no qualification or a level 1-3 certificate** compared with the total economy, but the proportion has a downward trend for the period 2006 – 2018
- There is an upward trend in the number of Māori enrolling for **level 3 and 4 certificates**, assisted by strong enrolments in 2021
- The proportion of Māori with **level 4 to 6 qualifications** has an upward trend for the period 2006 – 2018
- But the number and proportion of Māori **school leavers with NCEA Level 2 or above** has declined since 2017 although it picked up marginally in 2020. Determining the number of these learners who proceed into vocational education and gain a level 2 qualification will be a focus area for Hanga-Aro-Rau in 2022/23

Employment

- Māori employment has been growing at a greater rate than population growth – except post-GFC and the COVID-19 period
- Māori employment was **30 per cent higher in 2021** compared with 2013 (+82,000)
- In 2017, the annual rate of employment growth was 6.8 per cent (+20,000) the highest annual change this century but has declined steeply since then falling below 1 per cent (2,720) in 2021
- **14 per cent** (90,000) of Hanga-Aro-Rau sectors' workforce are Māori: Manufacturing employs the highest number of Māori (45,565); Logistics has the highest proportion (16.3%)
- The Auckland region accounts for **22 per cent** of Māori employment
- The North Island accounts for 82 per cent of Māori employment

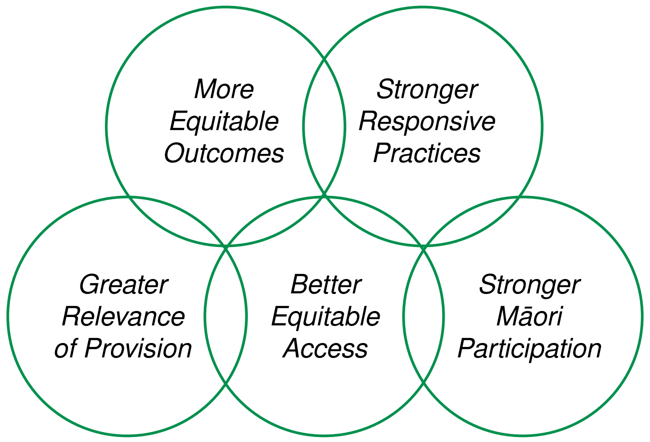
7 All data in this Māori section is aggregated from Infometrics; Ngā Kete; Ngai Tahu (2019); RoVE Technical Workshop (2019); Tai Tokerau Māori district council (2019); StatisticsNZ; Te Pūkenga (2021a, 2021b); Te Puni Kōkiri (2019).

What does honouring Te Tiriti o Waitangi and supporting Māori-Crown relations mean – to Māori?

Te Pūkenga's (2021) Te Pae Tawhiti: 2020 to 2025. Working Draft: Te Tiriti o Waitangi Excellence Framework identifies two major objectives and five associated goals – shown diagrammatically in the adjacent figure.

This conceptual understanding which will underpin the work of all WDCs and vocational education providers has been developed from extensive consultation, including with learners and staff, and shared in the 2021 Te Rito report (Te Pūkenga 2021b, p. 6). It is a rich source of insights and suggestions, such as this single representative example: "Indigenising te ao, so 7 generations from now can prosper" (p. 64).

The Te Pae Tawhiti vision
Inclusivity and Equity for Māori



What do Māori want from vocational education?

"…radical disruption with Māori front and centre of any changes… not interested in changes that just involved 'rearranging the deckchairs'" (RoVE Technical Workshop, 2019, p. 2)

The broader system would be indigenised – with more Māori within the Crown and the education system, as well as more people who don't necessarily look like Māori, but can think like Māori (ibid, p. 16)

…be able to 'own the past and the future" (ibid, p. 16)

During our interviews with employers known to have Māori owners or have a high number or proportion of Māori staff (more than 20 per cent), a number of comments supported this groundswell call for change:

- **Education and training that engages and supports iwi, hapū, hapori, whānau in te ao Māori with a Māori lens:**
  "Pastoral care is often lacking"… "Train our own children"… "Kaumatua-kohanga; tuakana-teina for knowledge sharing"
- **Integrating Māori culture and principles into qualifications** so that learners are not separated from te ao Māori, and see that they can draw on their heritage to strengthen their pathway into the world of work:
  "Capitalising on the Māori provenance story"
- **Better career progression and staircasing opportunities and pathways for social mobility**
  "Lack of Māori coming into the trades space"
  "Offering STEM subjects at kura"
  "Māori STEM pathways in te reo at tertiary institutions so students are supported culturally"
  "Graduate programs for Māori"

- **Better holistic and wrap-around support and preparation for rangatahi transitioning to work, including pastoral care**
  "…16 to 18-year-olds need to be learning commercial awareness, financial literacy, management papers, that productivity in the workforce is important"
  "Tribal knowledge lacking…"
- **Systems which build confidence and celebrate success – for Māori, by Māori**
  "Apprentices need to know they all have a part in the system and they're important"
  "Soft skill progression units"
  "Micro-credentials"

Two focus areas for Hanga-Aro-Rau

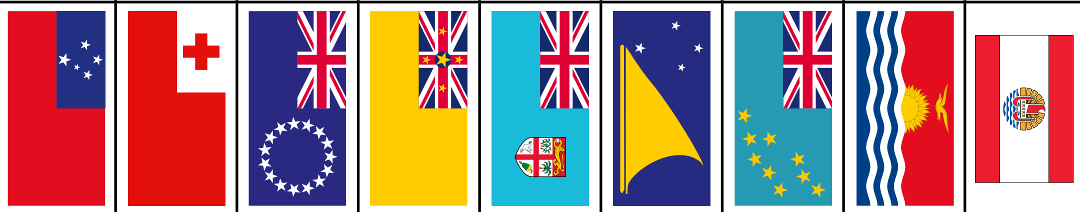
Our Hanga-Aro-Rau approach is based on initially bringing ourselves up to a level of understanding so that we are in position to appreciate – and advocate for – what has already been said by our Te Tiriti partners, Māori, iwi, hapū and whānau, and what has been written about by our mātauranga Māori experts. In order to guide our own whare, we are developing two policy documents concurrently with the SWLP Plan:

1. A Rangatiratanga Plan to outline our strategic intentions and activities to meet our rightful obligations to honouring Te Tiriti o Waitangi and support for Māori-Crown relations.
2. A Māori Data Sovereignty Policy to ensure we take great care and responsibility to represent who the data has been sought from in ways that maintain their mana, dignity and agency. Representation of the insights that have been gifted to us must be empowering, and not framed in deficit narratives.

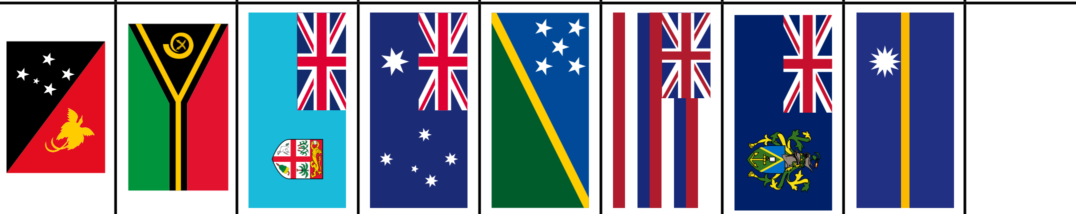
We recognise our responsibility to model equity and integrity to tangata whenua in our own mahi and our own organisational culture, before we ask it of others.

Pacific peoples[8]

Pacific peoples – with whom we share a strong cultural, geopolitical, and historical connection – are one of New Zealand's youngest and fastest growing populations: 66 per cent of Pacific peoples living here were born in this country, whereas a generation ago, the majority were migrants. The Pacific population is not homogenous: the New Zealand census recognises 17 different ethnicities, and each have their own vibrant culture, language, and history.



1	2	3	4	5	6	7	8	9
Samoan	Tongan	Cook Islands Maori	Niuean	Fijian	Tokelauan	Tuvaluan	i-Kiribati	Tahitian
182721	82389	80532	30867	19722	8676	4653	3225	1737
47.9%	21.6%	21.1%	8.1%	5.2%	2.3%	1.2%	0.8%	0.5%



10	11	12	13	14	15	16	17	18
Papua New Guinean	Ni Vanuatu	Rotuman	Indigenous Australian	Solomon Islander	Hawaiian	Pitcairn Islander	Nauruan	Other
1131	990	981	795	777	429	216	135	3060
0.3%	0.3%	0.2%	0.2%	0.2%	0.1%	0.05%	0.03%	0.8%

A growing population

- In 2018, Pacific peoples were **8.3 per cent** of the total population, projected to be 458,000 in 2023 and account for more than 10 per cent of the total population by 2038
- **A young population:** 31.4 per cent are aged under 15 years. The median age is **23.7 years** (for Māori this is 25.6 years, for Asian, 31.5 years, and for European, 41.2 years)

Vocational training is valued

- There is **an upward trend** in the number of Pacific peoples enrolling for level 3 and 4 certificates, assisted by strong enrolments in 2021 (23,240)
- **Completion rates** for Pacific peoples in industry training in our sector has been in the mid to high 70 per cent range in recent years (with a decline in 2020). Completion rates are **better than for all industry training – by 10 per cent** in 2019 and 2020

Distinctive regional settlement

are broadly aligned with NZ's total workforce; the biggest differences are a 2.6 per cent lower proportion of youth (15-24 years), and a 3.4 per cent larger proportion in those aged 25-54 years.

$8 billion contribution to GDP per annum

The underutilisation rate for Pacific peoples in the labour market (15 per cent in 2021) is higher than European (9.3 per cent) but lower than for Māori (16.9 per cent)

- The **effect of COVID-19** initially saw an increase in the number of underutilised Pacific people – indicating a larger proportion who were in and out of work, likely casual or temporary in nature, and reflecting the impact of the pandemic on our sector in general
- However, by 2021 underutilisation was the lowest it has been for 10 years – as for all ethnicities – likely due to the current labour shortage

High employment numbers in manufacturing, engineering and logistics

- At the end of December 2021, there were 164,900 Pacific peoples employed, the highest on record; around a third were employed in the Hanga-Aro-Rau sectors
- Pacific peoples make up around 8.4 per cent of all employees in our three sectors combined, over half these workers are in manufacturing

Many Pacific employees are unskilled

- A quarter of the current working population are in **labouring jobs**, with men more likely to work in manufacturing jobs and women in healthcare and social services
- The Pacific median income in 2018 was **$24,300** compared with $31,800 for all New Zealanders
- Only **1.5 per cent** of Pacific people (3,831) are business owners/working proprietors

8 All data in this section is aggregated from Infometrics; StatisticsNZ, and the Ministry for Pacific Peoples, 2021a; 2021b; Te Pūkenga (2021c).

What Pacific peoples want from vocational education

"The sense of belonging that we share as Pacific peoples is possible because of our unwavering Pacific values. Our growing and youthful population is made up of generation 6Bs - 'brown, beautiful, brainy, bilingual, bicultural and bold' who are already paving the way to a thriving and prosperous future"
– Hon. Aupito William Sio, Minister for Pacific Peoples (2021a)

The Pacific Policy Analysis Tool – Kapasa is framed around a vision and goals for a Pacific Aotearoa.

Pacific communities are leading innovations within Aotearoa, the Pacific region and the world. We are confident in our endeavours, we are a thriving, resilient and prosperous Pacific Aotearoa.

Goal 1: Thriving Pacific Languages, Cultures, and Identity
Goal 2: Prosperous Pacific Communities
Goal 3: Resilient and Healthy Pacific Communities
Goal 4: Confident, Thriving and Resilient Pacific Young People.

The focus is on wellbeing and protection of Pacific peoples' mana and dignity or to teu le vā. Pacific people want genuine and effective engagement in education policy making, to be considered via three overlay positions to facilitate better integration of Pacific peoples' perspectives: Does provision accept and value (1) Pacific peoples' information and evidence, (2) Pacific peoples' values, strength and diversity, and (3) Pacific peoples' engagement?

As Hanga-Aro-Rau moves beyond the initial scoping and connection-building with our stakeholders, partners and communities outlined in this inaugural Skills and Workforce Leadership Plan, we will seek to ensure that Pacific peoples' voices and lived experience are considered across our work. Where this SWLP has necessarily relied on published research and reports, we intend that future iterations will include members of Pacific Aotearoa as primary informants and co-contributors.

How Hanga-Aro-Rau is seeking to grow our network of Pacific advisors

Ensuring diversity across our own team is a focus for current recruitment.

Consulting, and joining where possible, Pacific peoples' forums.

Seeking referrals from industry groups and employers, particularly to identify businesses owned by Pacific peoples.

Other opportunities we have identified include leveraging engagements and encounters that occur as part of our day-to-day business to extend invitations to interested parties in Pacific peoples' communities. An example of this occurred when some of our team were finalising our COVID-19-recovery research partnership with Deloitte in their Auckland office, and were invited to address the staff about our kaupapa and values, and how we wanted these to form, and inform our research process. Following this useful and mutually informative session, a number of attendees from different Pacific nations expressed an interest in further involvement. We have agreed that a first shared initiative will be a peer review of this plan from a Pacific lens – especially related to our proposed actions and activities and look forward to collaborating further in the future.

The COVID-19 effect[9]

The arrival of COVID-19 in March 2020, brought immediate reductions in employment in some industries and increases in others. In June 2020, there was a brief fall in the total number of business enterprises, but this picked up again in November 2020 and the trend has been upward overall since.[9] Two years on, total employment is the highest it has been, the labour market is tight and there are skill shortages in many sectors. Yet the number of people receiving a Jobseeker benefit at the end of 2021 was 40,000 higher than the end of 2019, including 12,000 more Māori, 6,000 more Pacific people, nearly 10,000 more youth, 17,000 more women and nearly 8,000 more with psychological or psychiatric conditions.[9]

The Omicron variant has prolonged recovery; against a backdrop of uncertainty the economy faces capacity pressures, global supply chain disruption, port congestion, inflation, Official Cash Rate (OCR) increases, and ongoing difficulties bringing in workers from overseas.[9]

The above trends and challenges are evident in the Hanga-Aro-Rau sectors:

- There were around 200 fewer businesses in manufacturing in 2021 compared with 2019, and nearly 1,000 fewer businesses in logistics over the same period, although engineering business units grew by 1,100 and the number of self-employed people increased by around 700 for the same period[9].
- Employment in manufacturing, engineering and logistics combined grew by 1.2 per cent in 2020 and fell by only 0.9 per cent in 2021. This meant employment was 1,500 higher at the end of 2021 compared with 2019 and notably higher than the years immediately prior – with engineering the strongest performer in the group.[9]

In 2021, the Reserve Bank of New Zealand estimated that across New Zealand, weekly hours, employment, and the underutilisation rate, which had all been affected by the COVID-19 pandemic, had largely recovered to pre-COVID levels.[9] However, in manufacturing, engineering and logistics, our industry engagement interviews and survey responses suggest a different experience, more closely aligning with Infometrics sector analytics.

Employers told us:

- **A staff shortage at every level is severely impacting productivity**
  "We currently have 20 vacancies, cannot add a shift to meet demand because low unemployment rate"
  – Wood manufacturing employer

- **Rangatahi and new recruits in general often don't have a strong work ethic**, meaning that employing unqualified school-leavers with no work experience is not necessarily a solution:
  "The next generation don't have stickability – so there's a high turnover – as much as 60 per cent for under 25-year-olds"
  – Manufacturing, Māori business employer

- **Staff are going overseas or being poached by competitors for higher wages**
  Where previously this might have been accepted as the normal course of events, the impact of COVID on the workforce has made this a far more critical issue. More than three quarters of our participants representing nearly 100 employers, had or were developing staff retention strategies to mitigate these risks. Strategies mentioned included competitive pay scales, shareholding, formalising mentoring and tuakana-teina relationships among employees, organisational culture emphasising a whānau approach, and offering more training and education opportunities:
  "We look to provide life balance even when working in an extremely demanding industry. Money is an issue for us in the marketplace – so we provide benefits like flexible hours, reduced weekend work, improved facilities that the staff are proud of (fancy coffee machines etc). We look to help the employees with growth – not just quals, but personal growth, company shares, encourage community programmes etc"
  – Commercial road transport employer

- There can be a mismatch between skills and competencies taught in qualifications, and what is needed by industry. While this was not a consequence of the pandemic, the heavy demands on an existing workforce mean that the need to retrain new employees is adding an additional level of frustration with perceived gaps in current vocational education:
  "*We talked to a local provider about the types of jobs we needed people to do – and the premise behind the course sounded great. But the students were standing at a bench learning one thing – when they came to work, it was one of about 100 things they needed to be able to do. Those are the things they need to learn on-the-job, from someone who knows how we need it done*"
  – Mechanical engineering, Māori business employer

“The disruption caused by the COVID-19 pandemic and the government’s response of closing the borders have led to an incredibly tight labour market over the last year. The record-low unemployment rate of 3.2 per cent has been backed up by a raft of other indicators showing how difficult it is for businesses to attract and retain employees. With living costs surging as well, workers have both the bargaining power and the motivation to demand significant pay increases during 2022”[9]

- About a third of respondents stated that their organisation relied on immigrants to fill positions mainly due to the need for specialist skills, which locals cannot fill. However, this approach can also require resourcing and upskilling: *“There are a lot of migrant workers within the business, who have the skills but are missing some New Zealand experience, i.e., health and safety and other pre-trade skills”*
  – Automotive engineering employer

In addition, current COVID-19 response restrictions on immigration mean that the sectors need to develop and attract the New Zealand labour market to deliver these skills.

Hanga-Aro-Rau’s COVID-19 response research

Kei tua o te mate-karauna | Post COVID-19 Workforce Development Needs in New Zealand’s Manufacturing and Engineering Industries

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.

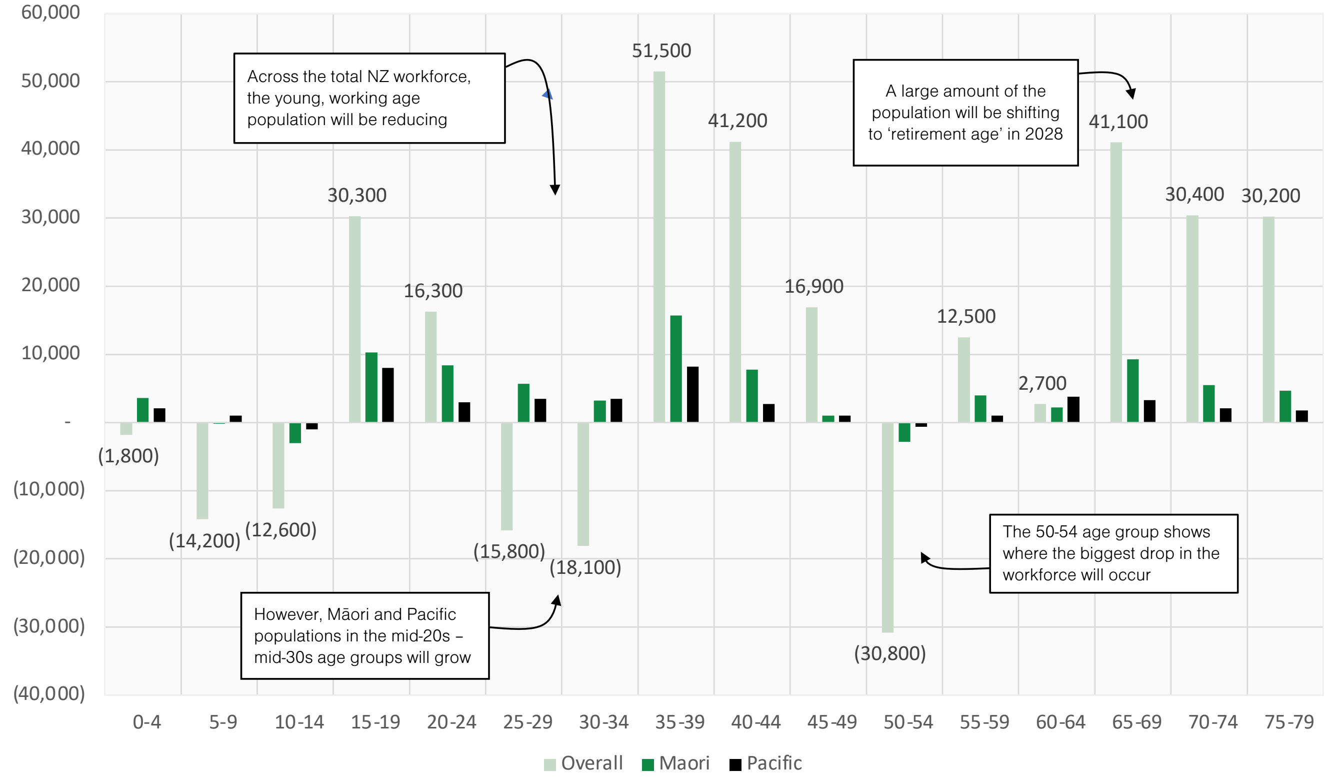
9 All data in this section is aggregated from Dasgupta & Plum, 2022; Infometrics; MSD; NZIER; StatisticsNZ.

An aging workforce[10]

Like many countries, New Zealand’s workforce is aging. We have among the highest rates of employees aged over 55 years of all OECD countries, which is expected to rise further in the coming years. At Census 2018, slightly more than a quarter (27 per cent) of the national workforce were in the 50-to-64-year age groups. By 2030, 25 per cent of the workforce will be over 55. All three of Hanga-Aro-Rau’s high-level sectors had the same or higher proportion of their workforce in these age groups: 29 per cent of manufacturing; 27 per cent of engineering; and 30 per cent of logistics.

The population is projected to continue a slow growth in the coming decades, reaching six million around 2043. Using median projected population data from StatisticsNZ for the period 2023 to 2028, the shift in the size of each age group is revealed; the graph below shows the shifts for the total population, Māori and Pacific peoples.

Population Change from 2023 - 2028 by Age Group (Overall NZ Population, Māori, and Pacific Peoples)



“A range of reasons are likely to be causing New Zealanders to have a longer working life… financial needs, job satisfaction… making a useful contribution, … availability of quality part-time work and flexible arrangements, improved health…”
NZWRI (2015, p. 1)

10 All data in this section is aggregated from Infometrics; NZWRI (2015) StatisticsNZ, Ministry for Pacific Peoples, 2021b; quotations are from Hanga-Aro-Rau’s own industry engagement.

It is evident that the baby boomers (born 1946-64) are followed by age cohorts notably lower in size, very likely insufficient to replace those retiring ahead of them. While there will be larger numbers in the two age groups 35 to 44 years in 2028, the number of people in the age groups behind them will be either smaller or only moderately larger (youth) than in 2023. There will also be a very large drop in proportion of the population aged 50-54. And while Pakeha New Zealanders (who comprise the largest part of the overall population) face an aging demographic distribution, Pacific and Māori have a much younger population: in the 2018 Census, 20 per cent of the total Aotearoa New Zealand population was aged under 15, but for Māori and Pacific populations, this was 32 per cent and 34 per cent respectively – making an impact on the economy as they enter the working-age group in years to come.

The country's demographic profile, therefore, is undergoing significant change. Addressing the aging workforce is about how to attract, retain and work with a higher proportion of mature workers in the workforce as well as how to replace them when they retire. A strategy that focuses on the recruitment of youth is only part of the solution.

Succession planning

Our aging population and workforce present both opportunities and challenges for all sectors across New Zealand's economy. Traditionally, older (60+) workers have been viewed as less attractive to an organisation, with an age discriminatory assumption that they only have a certain range of skills or are unable to take on new learning. Even now, while many organisations regard the aging workforce as an important priority, many organisations we heard from through our engagement interviews and survey had neither a policy nor programmes and initiatives in place to address the issue.

"Businesses are often only planning for the next week/month and lack the forward thinking of 5-to-10-year business plans"
– Industry representative, Automotive engineering

"... a real issue and concern is the lower-level leadership and management do not want to retire or move up the ladder. This is causing a bottleneck with career planning"
– Employer, Wood manufacturer

Many of our respondents were more focused on retaining older staff than in recruiting them and looking for options such as new roles and incentive packages, including the option to work as a contractor, to support a post-65 working life. These findings agree with those noted in multiple industry research and reports.

"Manufacturing will be challenged to make working conditions more attractive to the growing cohort of older workers relative to other sectors, for example by providing part-time work and training on new technology (Infometrics, 2018). Around half (51 per cent) of manufacturers in a 2018 EMA survey considered that an aging workforce will have an impact on their business…"
– Martin Jenkins (2020b, p. 48)

Working with and planning for an aging workforce in the manufacturing, engineering and logistics sectors

Examples of proactive measures being taken by some of the employers in our sector:

- Using older staff to support new recruits and formally pass on their knowledge, which awards them status and recognises their expertise (a tuakana-teina approach). *"We have recently developed and implemented a mentor programme with the help of senior technicians to assist with pastoral care of our apprentices"*
  – Employer, Automotive engineering
- Ensuring a clear progression pathway. *"There is succession planning at all levels of the business e.g.– drivers who will become managers"*
  – Employer, Commercial road transport.
- Supporting the aspirations of staff to become self-employed, recognising that these new businesses will be future employers in the industry: *"[We have] a senior staff member who wants to become a business owner, so that is their succession plan. The business is helping the individual train and collect the appropriate skills to run a business"*
  – Employer, Automotive engineering
- Shareholding options. *"Two younger project managers have bought shares in the company and intend to take over as the founding owner begins to retire"*
  – Employer, Mechanical engineering
- Longer-term planning. *"[We are] starting work on a five-year business strategy which includes succession planning"*
  – Employer, Mechanical engineering
- Professional development to upskill staff into management and senior positions. *"We always try to promote internally before we look outside...We support this with use of a course, like Dale Carnegie and lean training"*
  – Employer, Mechanical engineering

A potential role for Hanga-Aro-Rau

The range of issues and readiness demonstrated by our small-scale sector scan of almost 100 businesses suggests the need for further research to provide a more definitive understanding of the size and scope of the coming impact of an aging workforce. It seems industry would welcome solutions and strategies, such as a good practice guide to share existing success stories, including upskilling and professional development training options. Exploring potential partners and funding for such a project could be a 2023/24 workstream, if supported by TEC.

What comes next?

Hanga-Aro-Rau is the Workforce Development Council for New Zealand's pharmaceutical manufacturing sector.

Activities required to meet future skills needs

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 is 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 will work to contribute to RoVE outcomes

The diagram below 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.

Honouring Te Tiriti underpins everything we do – how we engage, how we work, and how we ensure te ao Māori values are central to how the ecosystem operates

Ākonga
Learners
We use their voices to drive improvement: learners can be confident their qualifications are both relevant and meet employers' expectations and national industry standards.

Kaituku Mahi
Employers
We work together with employers to set skills standards and give confidence to employers - including Māori business owners - that vocational education graduates have the skills employers need, now and in the future.

Takiwā
Regions
We are a nationally focused organisation that takes a regional perspective, listening to and ensuring the diverse needs of Aotearoa's provinces are met.

Kaituku Mātauranga
Providers
We share industry's needs with education and training providers to develop learning programmes that will give people the skills Aotearoa needs. We ensure industry standards are consistently applied by providers across the country, and across all modes of learning.

Umanga
Industry
Industry voice is central to our mahi: we partner with industry to understand the challenges they face and the skills they need to address these, then develop qualifications for providers to deliver.

The intent of the reform has meant there is a shift in the responsibilities each part of the system has in meeting the needs of learners and their whānau, employers, iwi, hapū and community.

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 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 providers.
- We work alongside Te Pūkenga/providers to support **programme consolidation** so that employers are confident of a consistent level of competency that aligns with industry requirements and priorities. This includes ensuring pathways (and content) are clear and endorsed by industry. The benefits for employers include building a sustainable pipeline of new staff, and for our ākonga/tauira; exposure to relevant skills and a more effective pathway into sustainable employment and apprenticeships.
- **We work with all TEOs** in the vocational education arena, recognising that 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 and addressing gaps in hi-tech provision and access to equipment.
- We will **prioritise programme development maintenance**, linked to the qualification review cycle, especially where there are known challenges with programmes that are impacting on industry success, e.g. learner achievement is poor, inequitable, or declining; industry has formally raised dissatisfaction; or there are consistently poor moderation outcomes or non-compliance by the provider.

Activities required to meet the needs of Māori industries and iwi/hapū businesses

Māori have a long history in international and domestic trade and business. The Māori economy is now worth close to $70 billion and growing. Further, Māori-owned businesses employ 43 per cent Māori on average, three times the rate as for non-Māori businesses. Māori businesses are therefore a key employer group for all WDCs, Te Pūkenga and other providers to help grow Māori engagement and success in vocational education and participation in Hanga-Aro-Rau workforces.

In 2022/23 we intend:

- To continue our focus on **engaging with Māori businesses**, as well as non-Māori (or 'mainstream') employers that employ Māori to ensure the vocational education system meets their needs. We know that a large proportion of mainstream businesses employ larger proportions of Māori; we believe that these businesses will be influential in effecting change for Māori.
- To **build stronger data sets around Māori business** for our industries, in collaboration with all WDCs, over 2022 - 2024. We hope this work will be in conjunction with organisations such as MBIE, Te Pūkenga, Statistics NZ and Te Puni Kokiri. We also expect additional momentum from the Shared Data Project that has been funded by TEC.
- To continue to **work closely with and respect the mana of RSLGs**. Given the regional spread of our industries, it is also essential we understand where our Māori hapori are. While we know that more in-depth research is needed in 2022/23 (and we have stipulated this in our Operational Plan), we have used Infometrics and Ngā Kete data to gain a preliminary overview, as indicated in the statistics included throughout this SWLP.

Activities required to improve equity

This SWLP, and all our mahi, is guided by our operational pou, the three pillars that guide us to (1) embed equity at all levels, (2) translate equity into action and (3) build equity capacity for all staff and our industries.

We will be working to:

- **Build our own cultural competency**, along with all WDCs, government agencies, RSLGs and providers. By embedding te ao Māori, te reo and Te Tiriti o Waitangi authentically in our support of learners, their whānau, employers, and industry we will encourage them to do the same. Initiatives here include workshops and mentoring, waiata and pepeha activities, using marae spaces for meetings, and generally ensuring that our business-as-usual models best practice.
- Ensure **that our own organisation and policy models non-discrimination and equal opportunities**, including inclusive recruitment approaches, and communicate this internally and externally. Where some of our policy breaks new ground for WDCs (e.g. our Taurite kaupapa, our rangatiratanga and Māori data sovereignty polices), we will seek to share with our stakeholders and support their own equity building efforts.
- Identify those of our industries that are already practicing approaches to equity and **facilitate the sharing of those models to assist others** in the sector build their own strategies and solutions.
- Actively work to **include other demographic groups who are represented in our industries' workforce**, but not currently represented in this plan: e.g. many of our employers, especially in Auckland, have a high proportion of Asian workers. Similarly, as acknowledged earlier, we will seek better knowledge of our priority groups (e.g. disabled, neurodiverse) about whom national datasets on an industry-by-industry basis are not so readily available.
- To **check in constantly with our Te Tiriti partners** with respect and humility: they are our guides in Mātauranga Māori and tikanga, and they set our course on this journey.
- To address all the above, without losing **focus on our core priority groups**. TEC's (2020) Statement of National Education and Learning Priorities (NELP) and Tertiary Education Strategy (TES) sets out five objectives to define the Government's long-term strategic direction for tertiary education. One of these objectives is: "Barrier free access… Reduce barriers to education for all, including for **Māori and Pacific learners/ākonga, disabled learners/ākonga and those with learning support needs**".

We understand that these groups have been traditionally underserved by tertiary education systems, and that equity provision and strategies are needed. We will also extend our priorities to include **female workers** as a group who are underrepresented in our manufacturing, engineering and logistics workforce, and **older workers** who are, and will become, an increasing proportion of the workforce and will need opportunity to upskill and support to contribute, as part of an organisation's succession planning. As we get further into our mahi, and as we grow our connections and networks, we look to expand our advocacy on behalf of further groups who are seeking a voice.

The following table summarises how these groups are recognised in this plan, and the actions and activities we look to undertake in their support, beyond 2022.

How Hanga-Aro-Rau is working with, and for, our priority groups

Our priority groups	In our workforce	In this SWLP	Actions to improve equity in vocational education access and outcomes in 2022 and beyond
Māori Our Te Tiriti partners, and tangata whenua of Aotearoa New Zealand.	We are committed to ensuring Māori are a core focus for all workforce development planning and strategies. Current population projections show 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.	• We have had the benefit of learning first-hand from the strong Māori voices in industry, and particularly those in the Māori economy, through interviews and our survey • We have also heard from Māori on many of the RSLGs and provider-held regional iwi and hapū relationships such as those that sit with Te Pūkenga via their subsidiary network • We have referenced existing Māori voice that has already given expression to their expectations of RoVE, e.g. Ngāi Tahu Perspective on the Reform of Vocational Education (2019); Tertiary Education Union submission on RoVE (2019); Tai Tokerau District Māori Council (New Zealand Māori Council endorsed) submission on RoVE (2019); and RoVE Technical Workshop (The Tauranga Yacht Club Wānanga) (2019)	• We will continue to grow and extend our networks of Te Tiriti partners and stakeholders • We will continue to promote and model decolonising and conscientising practice. An example here is our preference for holding team wānanga at a marae, rather than a mainstream, commercial venue, such as the 13 April 2022 one day workshop at Whareroa Marae, Tauranga. The immersive experience, guided by knowledgeable experts, made this a cultural learning opportunity, as well as progressing our own mahi • We will advocate for similar choices of venue in our work with stakeholder groups, such as RSLGs • We will use our Manu Taurite kaupapa framework across all our workstreams, but particularly in new research undertakings, and especially where we are collaborating with others (including WDCs, Government, RSLGS and industry) who may not have encountered this model before
Pacific peoples New Zealand has strong historic links and economic relationships with Pacific countries.	A young and growing population will reach half a million by 2028. This population is essential for our industries' succession and sustainability. While Pacific peoples are making strides in educational achievement – they continue to be over-represented in low-skilled, low-paid roles in the labour market. We are committed to working for, and with Pacific leaders to change this story.	• Most of the data in this SWLP is leveraged from existing research, especially that conducted by the Ministry for Pacific Peoples (2021a; 2021b) and Te Pūkenga's (2021) Te Rito report • Our future advice of Pacific peoples will increasingly be founded on greater understanding and partnering with our Pacific communities	• We will grow our own knowledge – individually and as an organisation. We recently celebrated Vaiaso o le Gagana Samoa week as a team, with new language and a Teams kahoot quiz to learn more about Samoa. Our industry newsletter allows us to share items like this and model these ideas to other organisations • We will advocate for education and training with embedded Pacific knowledge, led by Pacific staff and mentors • We will advocate for programmes and policies which support strategies that research has identified as important for Pacific learners transitioning to the workforce, including pastoral care, and peer-to-peer mentoring

Disabled people 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.	Disabled people are less likely to be employed than the general population or other minorities. We are committed to supporting industry and employers to create openings for people with disabilities, particularly as Industry 4.0 and new technologies offer solutions to barriers associated with traditional worksites.	• 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 • Note that a breakdown of disability data by ANZSIC level was not available, with StatisticsNZ informing us: "The disabled sample in the Household Labour Force Survey (HLFS) is pretty small, so we are limited on how specific we can get" (StatsNZ Outreach and Information Advisor, Email April 28, 2022)	• We will conduct research to understand how and where disabled people are represented in our industry sectors. Where possible, we will seek to ensure that we consult with representatives of this demographic group, and invite their participation and/or partnership
Women This is the section of the workforce that spend a greater proportion of their time on unpaid and/or caring work. This has been linked to the gender pay gap, and to women's selection of career roles.	Only a quarter of the manufacturing, engineering and logistics workforce is female, well below representation across the whole of New Zealand. We are committed to supporting programmes, providers and employers who proactively promote our sectors as strong career choices for female learners and workers.	• Industry engagement has identified that it needs to lift the attractiveness of these sectors as a career option for women – with specific statements made by our some of our industry engagement interview and survey participants, although this was not a focus question. We look forward to a more in-depth engagement with this workforce group in our future work	• We are already leading/co-sponsoring two projects which will lead to better understanding, and hopefully opportunities to support women's entry into trades – especially where this is a shift from previous work roles. These projects are the Industry Equity project, and the COVID-19 recovery project, already mentioned earlier in this SWLP • We hope that these projects will create resources which can be shared across our sectors, and across the country – e.g. through secondary school careers' offices and as part of career expo events. Industry may also find these useful as recruitment tools
Older workers The aging workforce is a pressure point for industry with the country's demographic profile undergoing significant change.	Older workers have experience and job knowledge that is invaluable for new recruits. They can help fill labour shortage gaps. Many older workers are fit and well able to work beyond the traditional retirement age. We are committed to promoting workplace practices that are non-ageist and flexible to support working-life longevity.	• Our industry engagement addressed the issue of succession planning; while 58 per cent of respondents indicated they had a specific strategy for their workforce as it ages, many were relying on the recruitment of young people, although new age cohorts entering the workforce are forecast to be much smaller	• Industry engagement interviews and survey responses indicated a number of practices designed to support older workers, such as Longveld, Waikato's four-day working week. Research to undertake a systematic collation and analysis of the effectiveness of various responses will allow us to create a reference toolkit, to share across the sector, and help our employers to 'think outside the square'
Neurodiverse priorities Neurodiversity may impact education, social inclusion, and effective participation in the workplace.	We are committed to promoting inclusive and non-discriminatory practice – in our own organisation, with our stakeholders, and in the workplace.	• 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	• Research to fill the gaps in knowledge in this area will be essential if we are to support employers to expand their workforce, and better understand those of their staff who have these conditions

Opportunities for research arising from this SWLP

Based on our learning from the industry engagement and research which underpins this SWLP, we see opportunities to undertake research that:

- Monitors, evaluates and captures good practice from project-based initiatives in the regions sponsored by RSLGs – such as the Dunedin Hospital build and the Hillside Workshops
- Provides insight into why our sectors employ so few women; and potentially, identifies practices that have been successful in attracting and retaining women
- Reviews national and international literature on the ageing workforce
- Identifies key factors (for mature workers) and strategies (from employers) that have potential to enhance the recruitment, retention and replacement of the mature labour force
- Addresses the lack of detailed data on Māori businesses
- Provides a formative evaluation of Māori learners' experiences in vocational education to act as a benchmark
- Identifies the number of Māori school leavers with L2 or higher who go on to vocational education and complete qualifications; and potentially, the factors that enabled completion or led to non-completion
- Addresses the lack of data on people with disabilities
- Brings together national and international literature on "generic/employability/transferable skills" so that we can be clear about what they are and thus ensure that qualifications address these needs
- Identifies the fast-emerging and merging technologies in selected sectors that require new skills and knowledge to be incorporated into their relevant qualifications
- Identifies selected sector issues relating to the need for environmental sustainability and responses to climate change
- Investigates alternative formats for micro-credentials, such as the Competenz digital skills programme, and internationally, Ireland's 'Micro-Credential Roadmap' (Nic Giolla Mhichíl et al., 2020).

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
PTE	Private Training Establishment
RoVE	Reform of Vocational Education
RSLGs	Regional Skills Leadership Groups
STEM	Science, Technology, Engineering, Mathematics
SWLP	Skills and Workforce Leadership Plan (this document)
TEC	Tertiary Education Commission
Te Pae Tawhiti	Te Pūkenga Treaty Excellence Framework
TEOs	Tertiary Education Organisations
TES	Tertiary Education Strategy
TEU	Tertiary Education Union
WDCs	Workforce Development Councils

Kohinga kōrero I References

ANZ. (2019). *At the crossroads: the New Zealand transport and logistics sector. ANZ Customer Insights.*
https://comms.anz.co.nz/tp/download/765043/c4907dd150d73f6773d33f7722367ecb/ANZ-Transport-Logistics-paper.pdf

CEBR (Centre for Economics and Business Research). (2016). *Engineering and economic growth: A global view.* Report for the Royal Academy of Engineering, London, September.

Dasgupta, K. & Plum, A. (AUT), 2022. *Skills, Economic Crises and Labour Market.* AUT Economic Working paper Series.

Deloitte Development US. (2021). *2022 engineering and construction industry outlook.*
https://www2.deloitte.com/us/en/pages/energy-and-resources/articles/engineering-and-construction-industry-trends.html

Employers and Manufacturers Association (EMA). (2022). *People Experience Trends - Workforce Development Equipping the workforce for the future.*
https://www.ema.co.nz/Ema/Resources

Engineering New Zealand. (2021). *Heavy vehicle engineer certification – solution design: Summary of key findings.*
https://www.engineeringnz.org

Fabling, R., and Sanderson, L. (2016). *A rough guide to New Zealand's longitudinal business database.* Ministry of Business, Innovation and Employment (2015). Māori in Business.

Footprint: Business Sustainability: Fashion and textiles. (13 December, 2021). *Govt biggest problem in "clothing carbon".* New Zealand Herald.

Infometrics (2022). *Community profiles. Regional economic profiles. Sector profiles.* [Multiple pages].
https://www.infometrics.co.nz/

Martin Jenkins. (2020a). *Manufacturing matters: An industry-led initiative to partner with government.*
https://www.mesnz.org.nz › uploads › 2020/04

Martin Jenkins. (2020b). *Manufacturing matters: Final report.*
https://www.metals.org.nz › uploads › 2020/04

Maxim Institute. (2020). *Catching the tide: New directions for youth NEET policy after covid-19.*
https://www.maxim.org.nz/article/catching-the-tide/

Mindful Fashion. (2022). *New Zealand fashion and textile industry skills landscape.* [Report].

Ministry of Business, Innovation and Employment (MBIE). (2021). *Pacific Peoples in the Labour Market - June 2021 Quarter (unadjusted).*
https://www.mbie.govt.nz › other-labour-market-reports

Ministry of Business, Innovation and Employment (MBIE). (2015). *Pacific Economic Strategy 2015–2021.*

Ministry of Education. (2020). *Statement of National Education and Learning Priorities (NELP) and Tertiary Education Strategy (TES).*
https://www.education.govt.nz/

Ministry of Foreign Affairs and Trade. (n.d.). *Te Ōhanga Māori The Māori Economy.*
https://www.mfat.govt.nz/kr/trade/trade-engagement-with-maori/

Ministry for Pacific Peoples. (2021a). *Kapasa: The Pacific policy analysis tool.*
https://www.mpp.govt.nz

Ministry for Pacific Peoples. (2021b). *Pacific Aotearoa Status Report: A Snapshot 2020.*
https://www.mpp.govt.nz/assets/Reports/Pacific-Peoples-in-Aotearoa-Report.pdf

MITO (Motor Industry Training Organisation Inc). (2021). *Automotive workforce development strategy.*
https://www.mito.org.nz/news/automotive-workforce-development-strategy-refreshed/

MITO. (2019). *Commercial road transport workforce development strategy.*
https://www.mito.org.nz/news/workforce-development-strategy-for-the-commercial-road-transport-industry/

Mordor Intelligence (2022). *New Zealand freight and logistics market study: Market trends, analysis and forecasts to 2022.* https://www.mordorintelligence.com/industry-reports/new-zealand-freight-logistics-market-study

Ngāi Tahu Perspective on the Reform of Vocational Education (March 2019). [Unpublished].

Nic Giolla Mhichíl, M., Brown, M., Beirne, E. & Mac Lochlainn, C. (2020). *A Micro-Credential Roadmap: Currency, Cohesion and Consistency.* Dublin City University.

NZIER (New Zealand Institute of Economic Research). (2021). *Forestry and wood processing labour force survey NZIER report to Ministry for Primary Industries.* https://www.mpi.govt.nz/funding-rural-support/future-skills/

NZIER. (March 2022). "Omicron throws another curve-ball to the NZ recovery". https://www.nzier.org.nz/

PWC (Price Waterhouse Coopers). (2020). *Economic contribution of engineering: Final report for Engineering New Zealand.* https://www.engineeringnz.org/public-tools/big-deal/

Public workforce 2035 – Futures scan. (2021). Public Service Commission. https://www.publicservice.govt.nz › assets

RoVE Technical Workshop (The Tauranga Yacht Club Wānanga) (28 May 2019, TEC) [Slides].[Unpublished].

Statistics New Zealand. (2020-2022). *Infoshare. NZ.Stat table viewer. News. Information releases.* [Multiple pages]. https://www.stats.govt.nz/

Tai Tokerau District Māori Council (New Zealand Māori Council endorsed) submission on RoVE (April 2019)

Taylor Higson. (2022). *Why the print industry is more important than ever* [Blog]. https://printrecruitment.co.uk/why-the-print-industry-is-more-important-than-ever/

Te Pūkenga. (2021a). *Te Pae Tawhiti: 2020 to 2025 Working Draft. Te Tiriti O Waitangi Excellence Framework.* https://tepūkenga.ac.nz

Te Pūkenga. (2021b). *Te Rito: Insights from learners and staff – opportunities to enhance success for all Te Pūkenga learners and Māori learners.* https://tepūkenga.ac.nz

Te Pūkenga. (2021c). *Te Rito: Insights from learners and staff – opportunities to enhance success for Te Pūkenga Pacific learners and Pacific staff.* https://tepūkenga.ac.nz

Te Pūkenga. (2021d). *Te Rito: Insights from learners and staff – opportunities to enhance success for Te Pūkenga disabled learners.* https://tepūkenga.ac.nz

Te Puni Kōkiri Ministry of Māori Development & Nicholson Consulting. (2019). *Te Matapaeroa 2019 – looking toward the horizon: Some insights into Māori in business.* https://www.tpk.govt.nz/en/a-matou-mohiotanga/business-and-economics/te-matapaeroa-2019

Teletrac Navman & and Civil Contractors New Zealand. (2021). *Construction Industry Survey.* https://www.teletracnavman.co.nz/resources/resource-library/articles/new-zealand-2021-construction-industry-survey

Tertiary Education Commission. (2022). *Ngā Kete.* https://ngakete.tec.govt.nz/

TEU (Tertiary Education Union). (2019). *Submission on RoVE.* https://teu.ac.nz

Appendix:

Introducing Āta Huritao: Hanga-Aro-Rau's Self-reflective Duties and Functions Tool

Āta Huritao[1] - the Hanga-Aro-Rau Self-reflective Duties and Functions Tool explores the duties and functions outlined in our Order in Council, as a series of questions for internal use, to help us steer our waka, and set our operational course. We expect to use Āta Huritao across many of our workstreams, but this inaugural Skills and Workforce Leadership Plan (SWLP) has provided an opportunity to test it. Members of the SWLP Working Group met as part of a wider Hanga-Aro-Rau representation for a face-to-face, one-day wānanga at Whareroa Marae, Tauranga on 13 April 2022. We were welcomed and hosted by Matua Turi Ngatai who helped guide us through the day. His far-ranging kōrero helped to set our context and underscored the importance of the work we are embarking on. A point he made when discussing hapū and iwi values resonated with us all: that when something is said, there is no back-tracking, and no deviation: Ngāi Te Rangi "ko Rauru kitahi e". A transliteration was given as being: "Our word is our bond."

The following matrix records our mahi for the day.

Outcomes		Self-reflective practice questions	Visible in 2022 Plan	In development for 2023 and beyond	Sources, connections and guidance
Outcome 1: Strong Industry Voice	1:1	How does this Plan facilitate the voices of our Manufacturing, Engineering and Logistics industries?	• Quantitative data analysis to establish key economic and demographic features of our sector • Desktop analysis of existing industry statements • Site visits and industry engagement interviews to hear views, aspirations and challenges first-hand • Online survey of employers, industry representatives and stakeholders (outside the interview participants) • Industry Transformation plans which had wide stakeholder involvement including Unions • Selected industries focus for a 'deeper dive': Wood Manufacturing, Sign Making, Print, Apparel, Mechanical Engineering, Automotive Engineering, Commercial Road Transport • Triangulation testing of key supply and demand insights from the above, through interviews with all RSLG leads • Cross-Government research and data	As in 2022, likely complemented by some or all of the following: • A new set of selected industries focus for a 'deeper dive' • Peak bodies and think tanks • Focus groups • Social media • Developing a working relationship with NZ Business to explore synergies • Consultation with unions especially for employee voice • New research using defendable methodology and methods with wide enough group to be valid/ credible/authentic	• National databases of statistics and forecasts • Hanga-Aro-Rau's own database of industry contacts • Publications from MBIE, MSD, MOE, MPP, Te Puni Kokiri • Oversight and review by Hanga-Aro-Rau Council and Industry Stakeholder Group • Industry reports including Industry Transformation Plans
	1:2	Does it do this in a way that helps our industries contribute to the creation of a sustainable, globally engaged, and adaptive New Zealand?	• Adaptation, flexibility and resilience were recurring themes in industry reports, and in interview and survey data. Workforce sustainability is also included in this Plan • Environmental sustainability and global engagement were not specifically addressed in data collection	• Include wider application of sustainable development goals and global engagement as focus areas	

1 This name was gifted to us by Dr Joseph Te Rito and comes with meaning careful/purposeful reflection.

Outcome 2: Contribution to Education System	2.2	How does this Plan support the provision for all people in our industries to reach their full potential and capabilities?	• Understanding the existing data to reflect the starting point for our industries and those employed within them (e.g., total employment, roles, productivity, work security, a quality working environment, and for workers to have a voice in the workplace) • Understanding any inequities in data and beginning to formulate actions to address that • Setting of goals/targets to measure the success of future actions and interventions against • Reviewing learner data – from quality-assured published reports and individual illustrative narratives included in this Plan • Inclusion of priority group voices from Te Pūkenga's Te Rito reports: (1) all Te Pūkenga learners and Māori learners (2) Pacific learners and Pacific staff (3) disabled learners	Continuing the approach from 2022, adding: • Increased focus on gathering learner/employee voice • Developing better systems to connect with this group of stakeholders directly (rather than via employers or providers) • Strengthening our engagement with providers • Strengthening the voice of Māori and Pacific Peoples in our mahi (e.g., leveraging the role of Pacific staff at Deloittes as reviewers of our work) • Gaining greater access into TEC datasets to allow for more in-depth storytelling	• Use of data and voices of those traditionally underserved by the education system (Te Rito, consultation/submission documents from RoVE) • Māori business and iwi consultation • Industry engagement interviews and surveys that specifically ask about workforce diversity, and representation of priority learner groups • Alignment with Government vision for education: National Education and Learning Priorities (NELP) and Tertiary Education Strategy (TES) - 2023 • Steering from Hanga-Aro-Rau Council • Insights from Hanga-Aro-Rau Industry Stakeholder Group • Connections through Hanga-Aro-Rau Relationships Team
	2.2	Does this Plan have a specific focus on those traditionally underserved by the education system?	• Much of the demographic data and discussions in this Plan are priority learner specific: Māori, Pacific peoples, disability and gender • Our kaupapa: led by our Poumatua (General Manager Māori Workforce Development), to ensure honouring Te Tiriti as a starting point (including tino rangatiratanga – agency and authority) emphasizing action research considering decolonizing mindsets and intended approaches • Starting to test these tenets in the way we use questions and engagement with our stakeholders, and the way we report their contributions: i.e., obtaining, understanding and reflecting using culturally appropriate ways (including engaging Māori learners in the context of their whānau) • Starting to use language that removes bias and creates space for equity of voice • Looking at how we can provide physically, culturally, emotionally, and spiritually safe environments	• Developing relationships and incorporating insights from education stakeholders: TEOs, NZQA • Invite provider representatives to attend relevant Hanga-Aro-Rau groups (e.g., Qualification Review Panels) • Emphasising decolonising, and action research • Including a focus on the transition from secondary school into vocational learning and workplaces • Engaging directly with priority groups for their voices and expanding our coverage to consider neuro-diverse and people with disabilities • Including a focus on the potential learners who aren't engaged, and why? • Extending our use of the three official languages of Aotearoa New Zealand across our mahi	
Outcome 3: Fair / Equitable	3.1	How does this Plan help ensure fair and equitable outcomes for all people in our industries?	• Understanding the data and any gaps and building from that to create measures of success • Starting to clearly and purposely prioritise those voices and needs in research focus, engagement and actions/recommendations including investment of time and resources • Analysis is starting to be based on accepted and authentic methodologies and methods that support equitable research and outputs • Our vision is that mahi is undertaken by and with those that are most affected by inequity through methods such as desktop analysis, direct voice, testing, then undertaking the mahi themselves and providing solutions to us. Hanga-Aro-Rau has begun this process by ensuring diversity within its own workforce, and by working closely with industry stakeholders and iwi partners	• Further exploration of existing research and interventions Including within our industries and providers) that have been proved successful and scaling those throughout our industries through advocacy • Developing plans and activities for working with mainstream industry, employers and peak bodies to see the benefits of supporting fair and equitable outcomes • Identification and advocacy of levers that our RoVE and all of Government can accelerate/magnify or introduce • Continuing to empower those most affected by inequity – in our own team, and across the sector • Possible focus groups: mental health in the workforce, neuro-diversity and people with disabilities	• Reflects discussions of equity from diverse published reports, RoVE submissions, wānanga, Te Pae Tawhiti and Korero Matauranga • Pilot advice to TEC related to single funding model, in collaboration with other WDCs, and agreed focus areas. Fairness and equity are key components of the current Hanga-Aro-Rau/Deloittes COVID-19 Recovery research
Outcome 4: Honours Te Tiriti o Waitangi	4.1	In what ways does this Plan contribute to an education system that honours Te Tiriti o Waitangi?	• Written commitment to Te Tiriti and our Poumatua and Council provide ongoing guidance and oversight • Planning for collaborative partnership with iwi/hapū, and Māori communities demonstrated in the range of data and voice included in this plan • Outcomes and results from engagement and research presented in this Plan have high value and relevance to Māori, and demonstrate a platform for positive and ongoing action	• Continuing our mahi in 2022 towards effective identification, analysis and action planning for Māori outcomes. Any gaps are minor and not of high significance • Quality is consistently demonstrated in processes and service delivery/approaches to support outcomes for Māori, as we develop actions based on our learning from this initial 2022 plan	• Continuous improvement and self-reflection (including this document) guided by Hanga-Aro-Rau Poumatua and Council, and peer-reviewed by Iwi partners • Māori business and iwi consultation • Feedback from the Kahui group – Turi May 9-10 • Literature related to kaupapa Māori best practice
	4.2	How does it support Māori-Crown relations?	• There is expressed cognisance of Māori worldviews demonstrated throughout organisational business approaches • Reporting and self-review on issues of importance to Māori is clear, genuine, and timely, and forms part of wider organisational guidance • We model our commitment to Te Tiriti and our kaupapa in all interactions and across all internal and external relationships (including our own recruitment processes and Te Tiriti workshops for our staff)	• Continuing alignment and checking in with Iwi partners to ensure mana oritie, and that Māori are the voice for Māori • Strong industry, agency and provider relationships will allow Hanga-Aro-Rau to undertake leadership and advocacy roles to assist others to advance Te Tiriti understanding and enactment • Our Rangatiratanga Plan and our Māori Data Sovereignty policy may assist others to develop their own statements and understanding	

Outcome 5: Working with stakeholders	5.1	How have we sought to work with learners, industry (including, but not limited to, employers, employees, self-employed people, volunteers, industry associations, and unions), tāngata whenua, stakeholders, the other WDCs and other organisations to deliver the outcomes that the Council seeks[2]?	• Understanding our Order in Council and what TEC are expecting from Hanga-Aro-Rau • Understanding of what outcomes our Council are seeking • Started consultation and engagement with most groups (including, but not limited to, employers, employees, industry associations, tāngata whenua/iwi/hapū, learners other WDCs) • Engagement with all 15 x RSLGs and reflection of their priorities in the plan • Identified the importance of reporting and self-review on issues of importance to these groups being clear, genuine, and timely, and forms part of wider organisational guidance • There is increasing cognisance of these groups' views with the understanding we need to positively affirm of Māori worldviews • In this 2022 Plan, Hanga-Aro-Rau selected four areas for focused discussions relating to current and future workforce needs. These were: Māori, Pacific Peoples, the COVID-19 effect, and the aging workforce. We acknowledge that we did not specifically target topics i – vi • During this self-reflection, HAR team members who conducted industry, Māori business and iwi/hapū engagement interviews contributed a number of observed examples of good practice across these topics. We will use these observations as a starting point to facilitate sharing of strategies and successes across our sectors • We believe we have identified an opportunity for HAR to support industry in our sector by building connections, through effective leadership, communication and networking and supporting advancing our duties	• Ongoing collaborative partnership/testing/engagement with groups contacted in 2022 will be consolidated • We will look to grow our networks and extend our database of industry representatives and employers • Contact and connections extended to include groups not specifically represented in this Plan, including self-employed people, volunteers, and unions • Effective identification, analysis and action planning for all groups. Quality is consistently demonstrated	• Industry relationships and Te Tiriti partners • WDC and RSLG meetings • Webinars – Employers and Manufacturers Association (EMA) • Wānanga and self-review
	5.2	In what way does this Plan support the responses to New Zealand's current and future workforce needs, taking into account– i. new global challenges ii. emerging technologies iii. global sustainability goals iv. the changing nature of work v. the skills, knowledge, and qualifications learners will need in future to achieve success for themselves and their communities vi. the transition to a low-emissions and climate-resilient New Zealand		• Topics i – vi will be addressed in future annual Skills and Workforce Leadership (SWL) Plans • Actions will include developing mechanisms to identify, describe and share good practice from one operator which may be transferable to others in the industry, while protecting intellectual property and competitive advantage • A framework to support this work might have wider transferability across other WDC, RSLG and/or provider initiatives • Exploring synergies for working with Centres of Vocational Excellence (CoVEs)	• 2023 - Business NZ, EMA and other memberships • Ongoing engagement and consultation across our sector and stakeholder groups
Outcome 6: Contributes to the reform and Education Strategies	6.1	How does this Plan give effect to– i. the relevant parts of the Tertiary Education Strategy ii. Ka Hikitia–Ka Hāpaitia iii. the Action Plan for Pacific Education 2020–2030	• As part of this self-reflection, we have included clear mapping of work – underway and proposed - against the Government's strategies, priorities and intentions described in these documents	• Work on future SWL Plans will follow 2022 processes, and look for opportunities to extend the number of persons or bodies able to represent Māori and other priority population groups, who are interested in partnering with us	• Peer reviews • Government directives, strategies and policy documents that overlap with our sector, and impact vocational education – we have referred to some of these already in this plan (see references) and will continue to grow our familiarity with these in 2023 • Feedback from as wide a breadth of our industry stakeholders and Te Tiriti partners as possible
	6.2	In completing this Plan, how have we had regard to the needs of Māori and other population groups identified in the Tertiary Education Strategy?	• This Plan has drawn on existing voice from these population groups (e.g., through desktop analysis) to inform reporting and plan future actions • Identified specific data showing Māori within our industries • Testing/peer-reviewing with Māori and other population groups identified in the Tertiary Education Strategy has begun – e.g. with feedback sought on this report prior to submission • Peer reviews engaging those with capability within the relevant population groups to give advice and guidance		
	6.3	Has there been any consultation with the persons or bodies HAR considers on reasonable grounds represent the interests of Māori and those population groups?	• Started engagement		
Outcome 7: Advocates for our industries	1	Does this Plan 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?	• This first SWL Plan has assisted Hanga-Aro-Rau to identify our stakeholders, frame the way we seek to engage with them, and gather data to provide a benchmark of the Manufacturing, Engineering and Logistics workforce in 2022 • Insights from interviews, visits and a survey have been aligned with desktop analysis of existing plans/interventions/levers/initiatives that providers/industry and all of Government already have in place to promote opportunities for all people to reach their full potential and capabilities • In addition to these two types of data, we have commissioned our first significant research project, related to Covid-19 recovery, in partnership with Deloittes • We have, and will continue to grow team capability and capacity to continue analysis, and to enable us to select and advocate for initiatives that should be supported • We have concentrated on building collaboration and partnership to inform this Plan. These connections will also help us to accelerate the effectiveness of our mahi in 2023 and beyond	• Continued collaboration and partnership with industry will help us identify initiatives which benefit employers and employees, to champion • Working more closely with providers, we will be well-positioned to advocate for quality vocational education and training which support the aspirations of employers, employees AND priority learners • We will begin work to develop clear systems to measure, track and advance our work and effectiveness as leaders and advocates for our industries	• Relationships • Peer review and stakeholder feedback • Ongoing monitoring and application of national statistics and measurements • Performance monitoring from TEC as our funder
	2	Does this Plan include research that supports our functions?			
	3	Does this Plan promote opportunities for all people to reach their full potential and capabilities by supporting quality vocational education and training outcomes?			
	4	How does this Plan address the needs and aspirations of priority learners in our industries, including Pacific learners and people with disabilities?			

2 See: Hanga-Aro-Rau Statement of Strategic Intent

HANGA-ARO-RAU
Manufacturing, Engineering and Logistics
Workforce Development Council

www.hangaarorau.org.nz

info@hangaarorau.nz

49 Tory Street (ANZ Campus) Tower B
PO Box 445
Wellington 6140