

# Manufacturing

WORKFORCE  
DEVELOPMENT  
PLAN

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

REVISED EDITION JULY 2025

The manufacturing industry in Aotearoa New Zealand is large and diverse. Utilising the skills of their workforce, technology and innovation, the sector is dedicated to manufacturing a wide range of products for the domestic and international markets.

This sector includes: General manufacturing; Chemical manufacturing; Competitive systems and practices (qualification); Plastics, polymer and rubber product manufacturing; Pharmaceuticals and medicinal product manufacturing; Aluminium joinery; Solid wood manufacturing; Wood panel and plywood; Metal manufacturing; Furniture manufacturing; Glass processing; Print and packaging; Tissue converting; Pulp and paper; Binding and finishing; Apparel manufacturing; Offsite manufacturing; Joinery; Textiles manufacturing; Fibreboard and packaging

## What matters to industry matters to us

Hanga-Aro-Rau engages with the sector through our Industry Stakeholder Group (ISG) and National Industry Advisory Group (NIAGs), composed of industry leaders from around the country. This is supported by regular site visits and engagements with sector associations, business owners and key stakeholders annually. We have heard what issues this sector is facing specifically and below have outlined our planned actions to address each priority.



Objective	Outcome	Hanga-Aro-Rau actions	NIAG Actions	Timeline
<b>Stronger Workforce Pipeline</b>  <b>Improving the profile of Manufacturing as a career</b>	Profile Manufacturing as a career option by communicating existing Case Studies.	<ul style="list-style-type: none"> <li>Communicate existing Case Studies and develop a basic template for new Case Studies</li> <li>HAR Marcoms publishes case studies on our website and social media platforms</li> </ul>	<ul style="list-style-type: none"> <li>Provide case studies for HAR to publish</li> </ul>	31 December 2025
<b>Identifying learning pathways that are relevant across sectors</b>	Cross-sector learning pathways are more visible.  Learners can see what other courses can build their skills for job roles across manufacturing.	<ul style="list-style-type: none"> <li>Map learning pathways that are relevant cross-sector</li> </ul>	<ul style="list-style-type: none"> <li>Review and endorse pathways mapping</li> </ul>	31 December 2025
<b>Ageing Workforce</b>  <b>Identifying exemplars where organisations have a plan to manage their ageing workforce and highlight how it can benefit the worker and the employer</b>	Organizations have developed tailored solutions to support their ageing workforce and strategically plan role transitions by leveraging shared strategies from the manufacturing sector.	<ul style="list-style-type: none"> <li>Develop an exemplar that showcases ways in which businesses have tailored solutions to support their ageing workforce</li> </ul>	<ul style="list-style-type: none"> <li>By providing expert advice, facilitating knowledge sharing, provide connections, and leveraging the expertise and resources of the manufacturing advisory group</li> </ul>	31 December 2025

2024 WDP Action	What has been actioned over the last 12 months	What will be actioned to Dec 30 2025
<p><b>Qualifications</b></p> <p>Complete Competitive Systems and Practices (CSP) Qual reviews and development of Micro-credentials before end June 2025</p>	<p><b>Approved reviewed qualifications:</b></p> <ul style="list-style-type: none"> <li>• <b>1818</b> New Zealand Certificate in Fibreboard Packaging (Level 2)</li> <li>• <b>1819</b> New Zealand Certificate in Fibreboard Packaging (Level 3) with strands in Case Converting, Case Corrugating, and Carton Converting</li> <li>• <b>1820</b> New Zealand Certificate in Fibreboard Packaging (Level 4) with strands in Case Converting, Case Corrugating, and Carton Converting</li> <li>• <b>4128</b> New Zealand Certificate in Energy and Chemical Process Operations (Level 3) with optional strand in Boiler Operations</li> <li>• <b>2307</b> New Zealand Certificate in Energy and Chemical Field Operations (Level 4) with strands in Advanced Steam Generation Plant Operation, Chemical Plant Operation, Geothermal Plant Operation, Petrochemical Plant Operation, and Petrochemical Transfer and Storage (with optional strands in Gas Turbine Operation, and Steam Turbine Operation)</li> <li>• <b>2308</b> New Zealand Certificate in Energy and Chemical Process Operations (Level 5)</li> <li>• <b>3197</b> New Zealand Certificate in Direct Mail Production (Level 3) with strands in Inserting, Laser Printing, and Variable Data Merging</li> <li>• <b>3199</b> New Zealand Certificate in Print (Level 4) with strands in Digital Printing, Offset Printing, Reel-fed Printing, and Screen Printing</li> <li>• <b>3200</b> New Zealand Diploma in Print Industry Management (Level 5)</li> <li>• <b>2606</b> New Zealand Diploma in Apparel and Fashion Technology (Level 6)</li> <li>• <b>2607</b> New Zealand Certificate in Apparel and Fashion Technology (Level 4)</li> <li>• <b>5218</b> New Zealand Certificate in Apparel and Fashion Technology (Level 4)</li> <li>• <b>3178</b> New Zealand Certificate in Apparel and Fashion Technology (Fabric Cutting) (Level 4)</li> <li>• <b>2608</b> New Zealand Certificate in Apparel and Fashion Technology (Patternmaking) (Level 5)</li> <li>• <b>2998</b> New Zealand Certificate in Competitive Systems and Practices (Level 3)</li> <li>• <b>5250</b> New Zealand Certificate in Operational Excellence (Competitive Systems and Practice) (Level 3)</li> <li>• <b>2999</b> New Zealand Certificate in Competitive Systems and Practices (Level 4)</li> <li>• <b>5251</b> New Zealand Certificate in Operational Excellence (Competitive Systems and Practice) (Level 4)</li> <li>• <b>3000</b> New Zealand Diploma in Competitive Systems and Practices (Level 5)</li> <li>• <b>5252</b> New Zealand Diploma in Operational Excellence (Competitive Systems and Practice) (Level 5)</li> </ul> <p><b>Approved new micro-credentials:</b></p> <ul style="list-style-type: none"> <li>• <b>5230</b> Concepts and Principles of Total Productive Manufacturing (TPM) in the Workplace</li> <li>• <b>5231</b> Certificate in Waste Reduction in the Workplace</li> <li>• <b>5298</b> Introduction to the Energy and Chemical Industry</li> </ul>	<p><b>Additional Development</b></p> <p>New micro-credentials stackable to the new Level 3 Operational Excellence Qualification [5250] have been developed and are ready for NZQA submission.</p> <p>NEW micro-credentials:</p> <ol style="list-style-type: none"> <li>1. Identify costs associated with waste in the workplace (5 credits)</li> <li>2. Use continuous improvement tools in the workplace (20 credits)</li> <li>3. Manage impact of change in own work environment (5 credits)</li> <li>4. Sustain process improvements in the workplace (5 credits)</li> </ol>



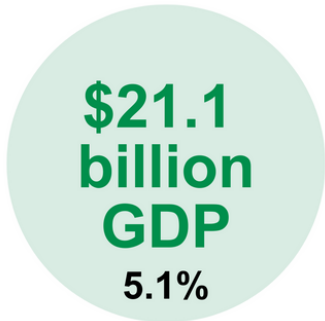
2024 WDP Action	What has been actioned over the last 12 months	What will be actioned to Dec 30 2025
Robotics skills standard development	Robotics skills standard completed and listed on the NZQA framework 40315.	Completed
Update Pathways document for Manufacturing Qualifications	Easier to read Pathways document developed.	Completed
<b>Strong Workforce Pipeline</b>  Coaching and mentoring opportunity linking schools with paid industry internships and supporting pilot programmes for school leavers	A collaboration between Waikato's leading manufacturers, Advancing Manufacturing Aotearoa, WINTEC, Waikato Engineering Careers Association (WECA) and Hanga-Aro-Rau, this programme addresses the skills shortage in New Zealand's manufacturing sector.	Link to project on HAR <a href="#">Website</a>
Need to improve collaboration / partnerships / networks with industry associations and NIAGs and their partnerships including MAKE NZ, AMA, etc to develop wider offerings and develop global awareness	We have initiated efforts to enhance collaboration and partnerships with industry associations and NIAGs, including MAKE NZ and AMA, to expand our offerings and increase global awareness.	Completed
Develop more industry sector cross-over to build transferable skills, awareness and promote sectors	HAR encourages cross domain engagement at Qualification and Standards reviews to build transferrable skills. Facilitation of the Industry Stakeholder Group and NIAG cross sector Co-chairs to improve collaboration and to promote awareness across sectors.	31 December 2025

# NIAGs tabled for the ISB to pick up post-January 2026

Objective	Outcome
Advocacy	The NIAG advocate for continuation of this advisory group in an ISB setting.
<b>Strong Workforce Pipeline</b>  TradeCareers online toolkit – achieved.	Maintain and expand the online toolkit and initiatives that support women in the engineering and manufacturing sectors by fostering collaboration between education providers, employers, and the ISB, with the goal of increasing the participation and success of women in both learning and employment pathways.
<b>Qualifications</b>  Preference for just-in-time, skills-focused education:	Promote the adoption of just-in-time, skills-focused education in the manufacturing sector by expanding the use of stackable micro-credentials that address technical skill gaps and align with industry needs, informing future qualification reviews and development.
Scoping QA skills in manufacturing	Define and integrate the skills and knowledge required for Quality Assurance (QA) in manufacturing by mapping them to existing educational pathways and exploring flexible delivery options—such as micro-credentials—to ensure accessible, industry-relevant training.
<b>Sustainability and Resilience</b>  Integration of sustainability practices:  Emphasis on regulatory compliance:  Customer preferences and social responsibility:  Continuous improvement and innovation:  Circular manufacturing models:	Embed sustainability principles and practices into manufacturing training programmes by educating workers on sustainable processes, raising awareness of environmental responsibility, and equipping them with the skills to implement sustainability initiatives within their organisations.  Ensure manufacturing training programmes equip workers with the knowledge and skills to understand and comply with evolving environmental regulations by incorporating education on emission reduction, waste management, and other key sustainability compliance practices.  Develop training programmes that foster awareness and adaptability to shifting customer preferences and the rising importance of social responsibility in manufacturing by educating workers on sustainable consumer trends and the ethical implications of production practices.  Empower the manufacturing workforce in Aotearoa New Zealand to lead in sustainability-driven innovation by embedding training that fosters continuous improvement, adaptability, and the adoption of new technologies and processes that support a low-emissions, circular economy.  Advance the adoption of circular manufacturing models by embedding training that equips workers with the knowledge and skills to reduce environmental impact, enhance productivity, and deliver customer value through sustainable, closed-loop practices.

# Sector snapshot

## Size of the sector



GDP: In 2024, the sector (excl. food and bev) contributed \$21.1 billion, which is 5.1% of the total economy.



General Manufacturing = 47% of industry

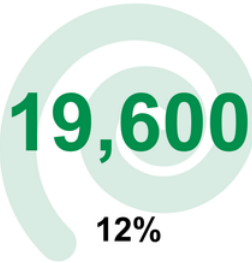
No. of businesses (2024): 19,521, with general manufacturing 47%, metal manufacturing 11%, and solid wood manufacturing 7%.



Māori-owned businesses (2021): The sector had 659 or 6% (in ⅓ where ownership data was available).



Employment: Continues to grow and is forecast to reach around 165,500 in 2030, around 2,400 more than 2024.

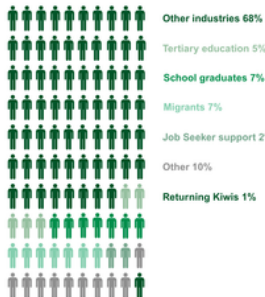


No. of Māori employed (2023).

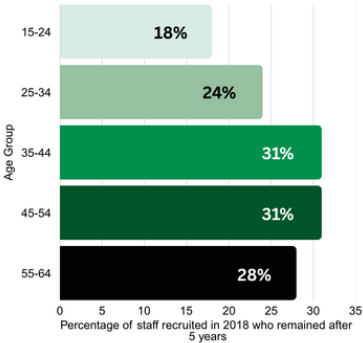


Ethnicity data for sector (2023). Total response ethnicity allows multiple ethnicities for each individual.

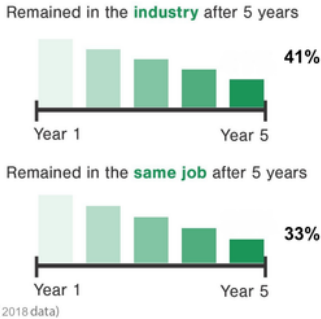
## Trends and forecasts



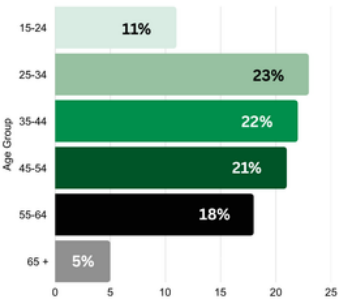
New entrants: From 38,700 to 40,100 between 2015 and 2023. Most from other industries, showing opportunity for attraction.



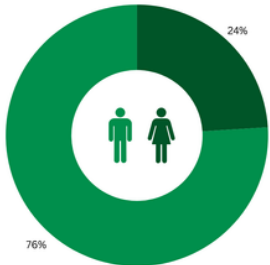
Retention of new entrants: Of the 2018 new entrants, the proportion of each age group who remained after 5 years.



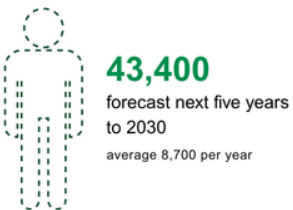
Overall retention: Of the 2018 workforce, 41% remained in the industry after 5 years and 33% were in the same job after 5 years.



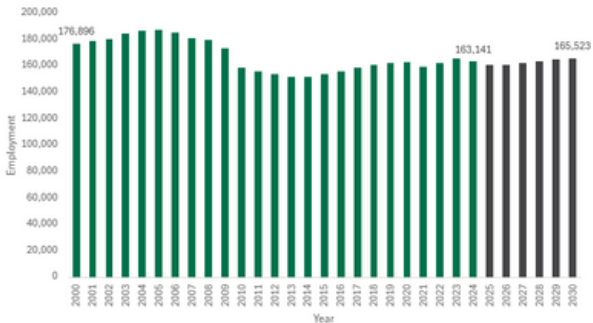
Age breakdown: 15-24-year-olds stayed the same at 11% (2015-2023), 55+ age group grew from 22% to 23% over the same period.



Gender split (2024): 24% of the workforce is female, down from 25% in 2015.



Forecast: 43,400 openings over the next 5 years (average 8,700 p/a), 12% due to growth and 88% due to workers leaving/retiring.



Employment: History and forecast



# Cross-Sector Action Plan

The below forms part of HAR actions until 31 December 2025 and will be tabled to the new ISB for future actions

Objective	Outcome	Hanga-Aro-Rau Actions	NIAG Actions	Timeline
<b>Qualifications and Recognition</b>  To address challenges with Recognition of Prior Learning, current skills and experience in our sectors	<p>The vocational education system effectively recognises and validates prior learning and experience, enhancing upward mobility, transferability, and transparency of current skills.</p> <p>The result will be formalising skills and knowledge through qualifications.</p>	<p>Actively advocate for Recognition of prior learning as a programme of work/conversations all WDCs are having with NZQA and providers.</p>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p>
<b>Advocate for funding gaps to recognise Prior Learning in Manufacturing, Engineering and Logistics (MEL)</b>	<p>Adequate funding is secured for the formal recognition of prior learning and experience in manufacturing, engineering and logistics for the benefit of employers and learners to help alleviate financial burden.</p>	<p>HAR has responded through our Advice to TEC function.</p>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p>
<b>Better streamline qualification development to address delays in sector training</b>	<p>The development and implementation process for qualifications, programmes, and unit standards in the MEL sectors is expedited and efficient.</p>	<p>HAR have worked across the vocational education system with TEC, NZQA, and Providers to address the systemic challenges that slow things down by:</p> <ul style="list-style-type: none"> <li>• Early signalling to providers by giving early notice of upcoming reviews</li> <li>• Tighter project management</li> <li>• Shared language and expectations</li> <li>• Proactive engagement with system agencies</li> <li>• Early and deep industry involvement</li> <li>• Expanding our provider network.</li> </ul>	<p>Support and endorse actions taken by Hanga Aro Rau to address objectives.</p>	<p>31 December</p>

# Cross-Sector Action Plan

The below forms part of HAR actions until 31 December 2025 and will be tabled to the new ISB for future actions

Objective	Outcome	Hanga-Aro-Rau Actions	NIAG Actions	Timeline
<b>Ageing Workforce</b>  <b>Providing Transition support for retaining the older workforce in Hanga-Aro-Rau Industries</b>	<p>Transition support is provided to experienced older workers to move into less physically demanding positions and to transition and retain senior workers into leadership and training roles.</p> <p>Employers will be able to develop and maintain succession planning and attract and retain talent.</p>	<p>We keep industry updated on quantifiable data and new research on the ageing workforce giving industries the opportunity to respond.</p>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p>
<b>Acknowledging the skills gap for older workers in a rapidly evolving technological environment</b>	<p>Older workers receive the necessary training and support to adapt to new technologies and processes, ensuring they can effectively keep pace with rapidly evolving sector advancements.</p> <p>Industry retains the skills and knowledge of older workers.</p>	<ul style="list-style-type: none"> <li>Promote the Level 3 digital skills qualification and the development of a Level 4 qualification.</li> <li>Incorporation of new technology skills into our qualification reviews.</li> </ul>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p>



# Cross-Sector Action Plan

The below forms part of HAR actions until 31 December 2025 and will be tabled to the new ISB for future actions

Objective	Outcome	Hanga-Aro-Rau Actions	NIAG Actions	Timeline
<b>Stronger Workforce Pipeline</b>  <b>Attracting young talent and improving the industry profile</b>	<p>Improved visibility of MEL sectors to attract younger talent, ensuring they are well-informed about the career opportunities available within the MEL sectors.</p>	<ul style="list-style-type: none"> <li>HAR has delivered the TEC <b>Inspiring the Future</b> (ITF) programme and continues to support the development of the Tāhātu Career Navigator website. ITF events seek to break down barriers and stereotypes, especially for young Māori and Pacific students.</li> <li>HAR works with other organisations like Chambers of Commerce, Economic Development agencies and AMA to promote and attract talent.</li> <li>HAR will develop and publish qualification pathways.</li> <li>Communicate and publish case studies.</li> </ul>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p>
<b>Overcoming Literacy and Numeracy Barriers: Enhancing Training and Advancement Opportunities</b>	<p>Industry is more aware and has better access to literacy and numeracy support, ensuring that all individuals could receive future training and advancement.</p> <p>This approach promotes equitable access to education and career growth, enabling a more skilled and capable workforce.</p>	<ul style="list-style-type: none"> <li>HAR advocate in this space through our TEC advice and by advising employers of the various literacy and numeracy programmes to engage.</li> <li>Supporting digital literacy awareness by promoting Level 3 digital skills qualification and the development of a Level 4 qualification.</li> <li>Broker introductions between industry and providers for specialist support.</li> </ul>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p>

# Cross-Sector Action Plan

The below forms part of HAR actions until 31 December 2025 and will be tabled to the new ISB for future actions

Objective	Outcome	Hanga-Aro-Rau Actions	NIAG Actions	Timeline
<p><b>Enabling a strong economy, including a strong Māori economy</b></p>	<p>Employers successfully engage, attract, and retain a diverse workforce, including Māori, Pacific, Women, and Disabled Peoples, by looking beyond traditional employment pools. This approach addresses labour shortages and fosters an inclusive, dynamic, and skilled workforce that meets the evolving needs of the sector.</p> <p>Industry successfully embeds Te Tiriti o Waitangi principles and embraces Te Reo Māori, creating a supportive environment for the growing Māori workforce.</p> <p>This approach enables the estimated 50,000 Māori entering the workforce over the next five years are well-supported, helping to address labour shortages and fostering a more inclusive and culturally aware industry.</p>	<p>HAR advocate the importance of the growing Māori workforce.</p> <p>We're identifying workforce gaps and leveraging opportunities to enhance access for Pacific Peoples within MEL sectors. Through engagement of <b>Lumana'i o Tangata Moana, Hanga-Aro-Rau Pacific Peoples Workforce Development Action Plan</b>, we're working to ensure strengthened outcomes within the vocational education system, empowering Pacific learners and workers to thrive.</p> <p>Empowering Disabled Individuals: Our Disability Research Project Report, informed by extensive engagement and research, identified barriers and opportunities to enhance support for disabled individuals in training and employment. <b>Let's level up</b> disability project launched to promote potential of disabled workforce to meet skill needs of the sector.</p>	<p>Support and endorse actions taken by Hanga Aro Rau to address objective.</p>	<p>31 December</p> <p><a href="#">White Paper: Unlocking the potential of Māori and the Māori economy</a></p> <p><a href="#">Mahere Whanake Māori Plan</a></p> <p><a href="#">White Paper: Unlocking the potential of Pacific Peoples</a></p> <p><a href="#">Lumana'i o Tangata Moana</a></p> <p><a href="#">White Paper: Unlocking the potential of the disabled workforce</a></p> <p><a href="#">Let's level up</a></p>

# We want to hear from you

These Workforce Development Plans are our functions in action and remain agile to changing Industry and VET sector needs. We encourage and seek continual feedback, so if you would like to contact our team, please email [info@hangaarorau.nz](mailto:info@hangaarorau.nz)

