



HANGA-ARO-RAU

**Manufacturing, Engineering
and Logistics**

Workforce Development Council

Understanding Demand for Industrial Knitting Training

Survey Report

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Executive Summary

Introduction

In 2023, there were 699 people employed in the Knitted Product Manufacturing industry in Aotearoa New Zealand, with 47 employed as knitting machine operators. Across the total economy, there were 85 employed knitting machine operators in 2024. ¹

There are no current qualifications focused specifically on industrial machine knitting. There are, however, some existing unit standards in the [Industrial Machine Knitting sub-field](#).

Hanga-Aro-Rau had been engaging with companies who employ industrial knitting machinists to understand their needs prior to undertaking a review of the related unit standards.

Key Findings

Total Responses: 14 respondents from organisations who employ people who work with industrial machine knitting.

Number of industrial machine knitting staff: Respondents reported a total of 178 staff who work with industrial machine knitting being employed across their organisations.

Business Size: Half (50%) of respondents represented companies which employ 20 or over staff, with 28% representing larger businesses with 50 or more employees.

Difficulty in recruiting industrial machine knitting staff: 71% of respondents reported 'extremely difficult' (57%) or 'very difficult' (14%) in recruiting industrial knitting roles.

Current approach to training: All respondents indicated that internal training is used to train skills required for industrial machine knitting. 36% also indicated they hire New Zealand based staff with existing skills (36%).

Engagement with education system: Over one third (36%) of respondents had not engaged with the education system before.

Demand for industrial knitting training: Half of respondents (50%) indicated that their workplace would enrol learners in a general manufacturing qualification that includes some specific industrial knitting skills. Based on these responses, an estimated total of 13 to 18 learners could be enrolled per year.

Next Steps

Share this report with participants and other industrial knitting stakeholders.

These findings will support further discussions with industry and providers around options to support industrial knitting within the vocational education system.

¹ Information in this section was sourced from Infometrics, using the Apparel definition (see Appendix A).
Understanding Demand for Industrial Knitting
Training – Survey Report

Table of Contents

Executive Summary	2
Introduction.....	2
Key Findings	2
Next Steps	2
Background	4
Survey	4
Survey Methodology	5
Survey Findings.....	5
Sample	5
Number of staff	5
Difficult in recruiting in industrial knitting roles	6
Current training and engagement with education	6
Demand for industrial knitting training.....	8
Skills for industrial machine knitting training	8
Next steps.....	9
Appendix A – Knitted Product Manufacturing Definition	10
Appendix B - Survey Questions	11

Background

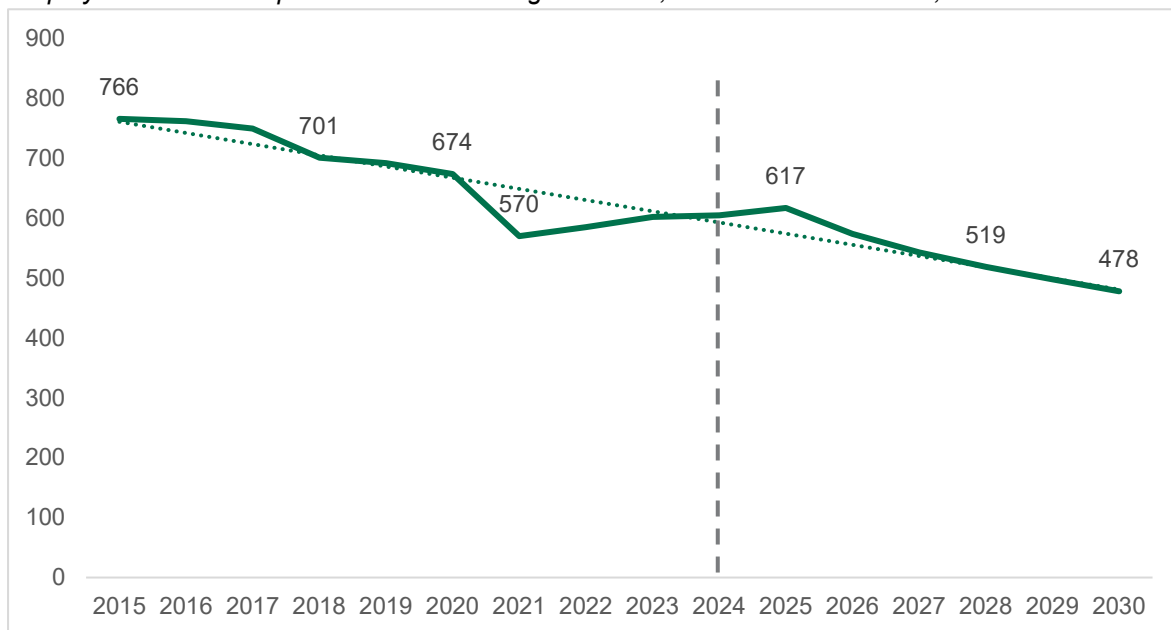
In 2023, there were 605 people employed in the Knitted Product Manufacturing industry in Aotearoa New Zealand, with 46 employed as knitting machine operators. Across the total economy, there were 85 employed knitting machine operators in 2024.²

There are no current qualifications focused specifically on industrial machine knitting. There are, however, some existing unit standards in the [Industrial Machine Knitting sub-field](#).

Hanga-Aro-Rau has been engaging with industrial knitting industry stakeholders, where feedback has suggested more formalised training is needed in the sector to support upskilling and skill development. However, training providers are not currently delivering any programmes in the area.

Figure 1

Employment in knitted product manufacturing over time, historical and forecast, 2015 – 2030



Survey

The intention of this survey was to gather information from organisations who employ people using industrial knitting skills to understand their needs and preferences for potential qualification and training solutions. In addition, this survey sought to measure potential demand for potential industrial knitting qualification delivery and explore the possibility of general manufacturing qualifications being used for industrial knitting.

These findings will support further discussions with industry and providers around possible solutions to meet the training needs of industrial knitting.

The findings of this survey will be shared with participants and other industrial knitting stakeholders and relevant providers.

² Information in this section was sourced from Infometrics, using the Apparel definition (see Appendix A).
 Understanding Demand for Industrial Knitting
 Training – Survey Report

Survey Methodology

The survey was completed using the Customer Voice platform (Microsoft Dynamics) and comprised a series of organisational demographic questions, dichotomous questions³, Likert scale based and open-ended questions (see Appendix C).

An email invitation was sent to 42 industrial knitting stakeholders Hanga-Aro-Rau had developed through engagement and with industry. In addition, Hanga-Aro-Rau worked with Mindful Fashion who sent the survey to their industrial knitting stakeholders.

The survey was open between the 21st of May and the 4th of June 2025.

Survey Findings

Sample

A total of 17 respondents completed the survey. However, 3 indicated that their organisation does not employ staff who work with industrial machine knitting. As the purpose of this survey was to gather insights from organisations that directly employ industrial knitting staff, those who answered 'No' to employing industrial machine knitting staff were directed to the end of the survey.

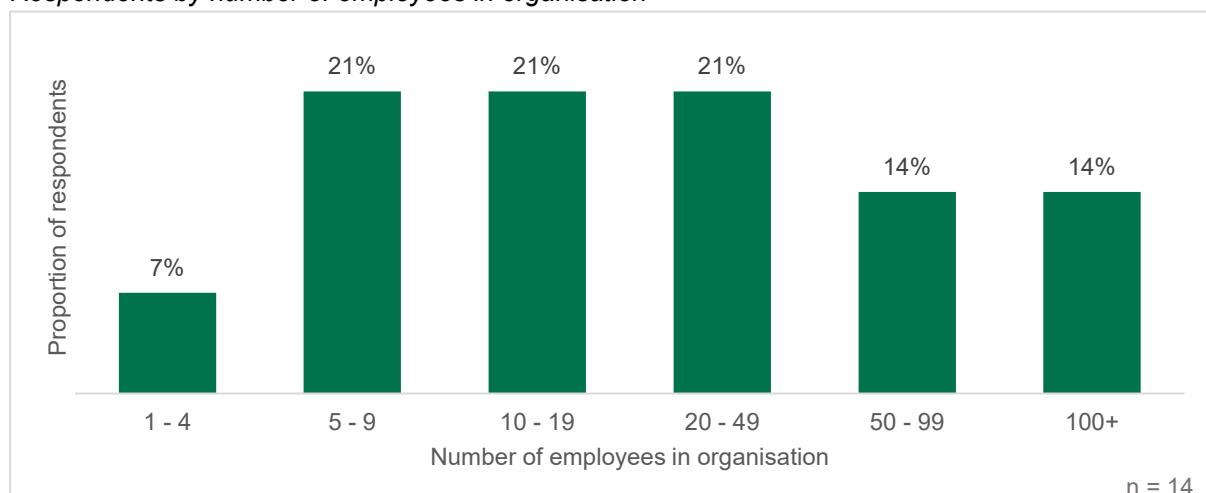
For the remainder of this report, results are based on the 14 respondents whose organisations employ people working with industrial machine knitting.

Number of staff

- Respondents reported a total of 178 staff who work with industrial machine knitting employed across their organisations.
- Half (50%) of respondents represented companies which employ 20 or more staff in total, with 28% representing larger businesses with 50 or more employees (Figure 2).
- Half (50%) of respondents came from smaller businesses with less than 20 employees.

Figure 2

Respondents by number of employees in organisation



³ Dichotomous questions have two possible answers such as 'Yes' or 'No.'

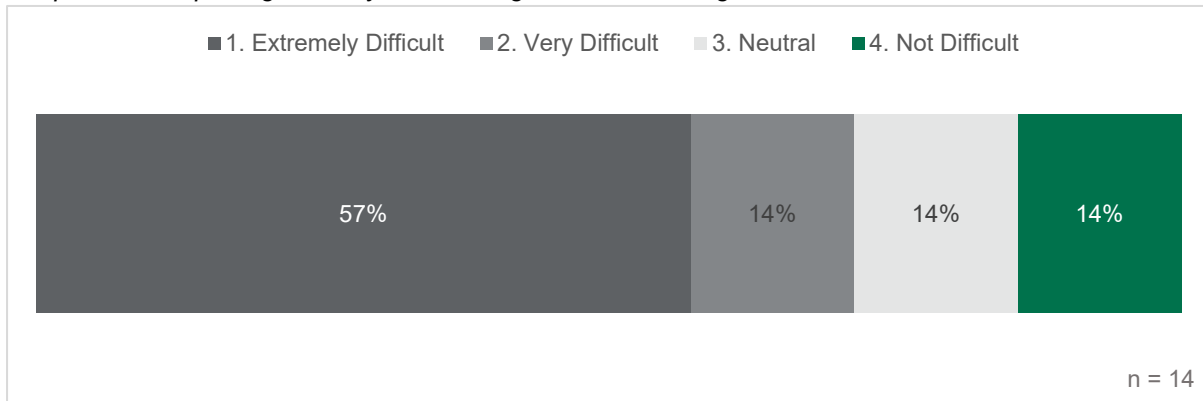
Difficult in recruiting in industrial knitting roles

Respondents reported significant difficulty in recruiting industrial knitting roles.

- 71% of respondents reported 'extremely difficult' (57%) or 'very difficult' (14%) in recruiting industrial knitting roles.
- Only 14% of respondents reported 'not difficult'.

Figure 3

Respondents reporting difficulty in recruiting industrial knitting roles



Current training and engagement with education

Internal training is the most common approach to obtaining the skillset required for industrial machine knitting, with all respondents indicating this (100%) (Figure 4).

Hiring New Zealand based staff with existing skills was the next most common approach, with 36% of respondents. 14% of respondents indicated they hire skills staff by recruiting internationally.

Figure 4

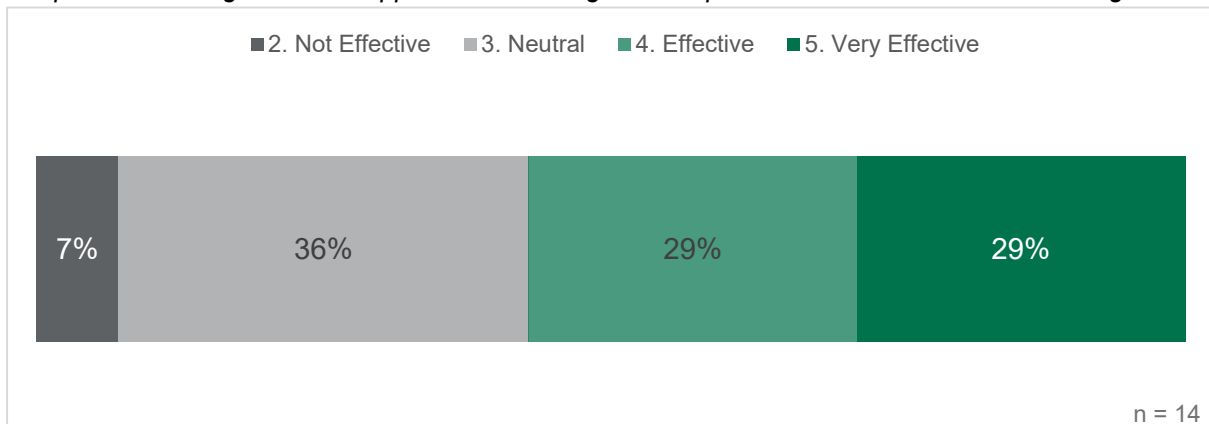
Proportion of respondents' current approach to training skills required for industrial machine knitting



- Over half of respondents (57%) rated their current approach to training as 'effective' (29%) or 'very effective' (29%) (Figure 6).
- Only 7% of respondents indicated they felt their current approach was 'not effective'.

Figure 5

Respondents rating of current approach to training skills required for industrial machine knitting



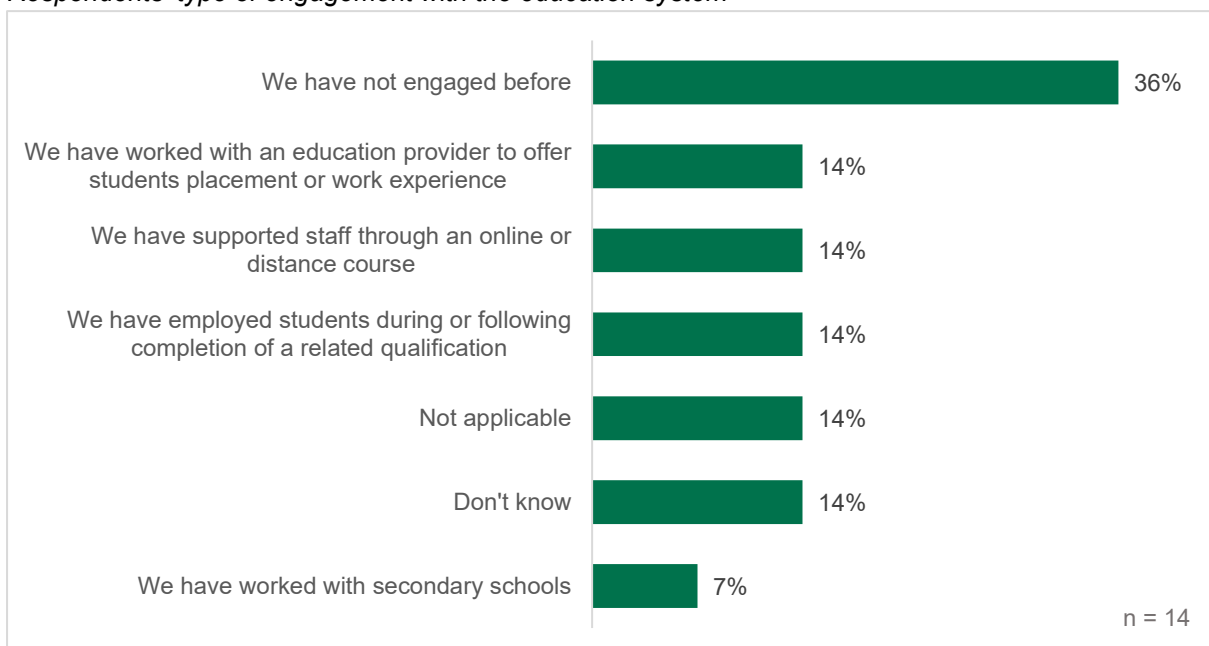
Over one third (36%) of respondents had not engaged with the education system previously (Figure 7).

There was some engagement with students from the education system reported, but not at high levels:

- 14% reported they had worked with an education provider to offer students' placement or work experience
- 14% reported they had employed students during or following completion of a related qualification
- 7% reported they had worked with secondary schools

Figure 6

Respondents' type of engagement with the education system



Demand for industrial knitting training

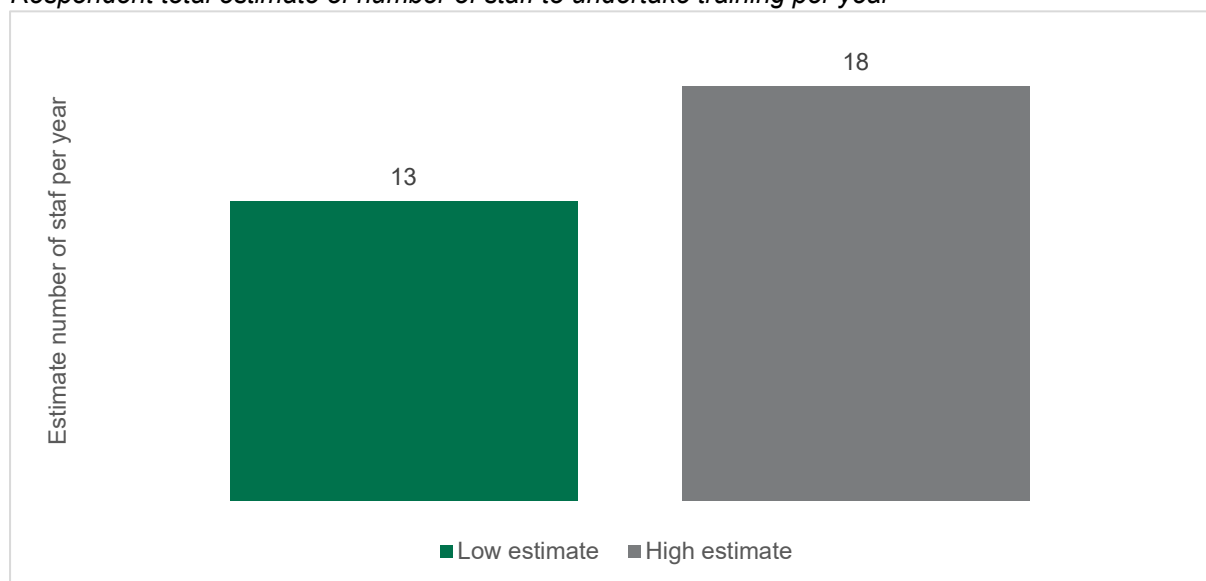
Half of respondents (50%) indicated that their workplace would enrol learners in a general manufacturing qualification that includes some specific industrial knitting skills. The remaining 50% reported their workplace would not. The context that was provided to respondents to answer this question can be found in Appendix B (Industrial machine knitting questions).

Those who indicated their workplace would enrol learners were asked to estimate the number of learners they would enrol per year. Several respondents provided a range rather than a single number; these ranges were used to calculate the low and high estimates shown in Figure 7.

Based on these responses, an estimated total of 13 to 18 learners could be enrolled per year.

Figure 7

Respondent total estimate of number of staff to undertake training per year



Skills for industrial machine knitting training

Respondents were asked which skills they believe should be included in any industrial knitting training programme (Figure 8).

The most frequently identified skills included:

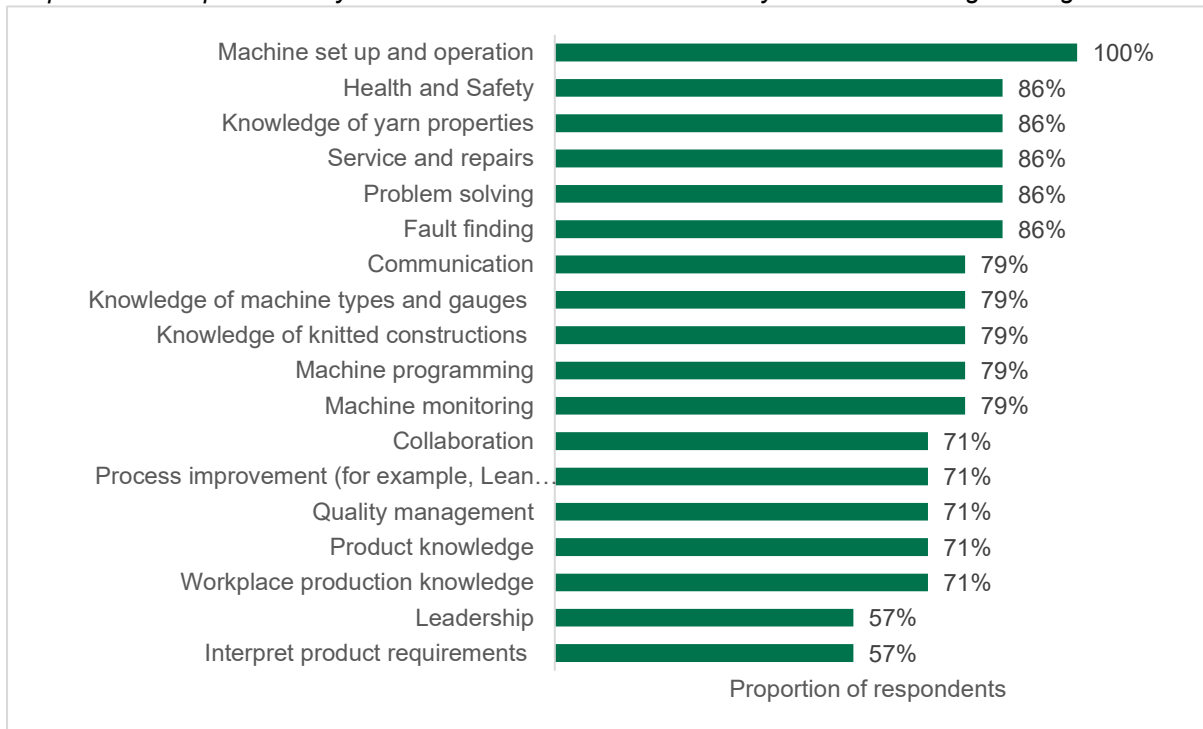
- Machine set up and operation (100%)
- Health and Safety (86%)
- Knowledge of yarn properties (86%)
- Service and repairs (86%)
- Problem solving (86%)
- Fault finding (86%)

The skills less frequently identified were:

- Leadership (57%)
- Interpret product requirements (57%)

Figure 8

Proportion of respondents by skills that should be included in any industrial knitting training



Respondents were asked if there were any skills or knowledge missing from the list included in Figure 8. 43% of respondents said ‘no’, with the remainder providing no response.

When asked if there was anything else respondents wanted to share, one respondent noted the cross-over between industrial knitting and weaving:

“I understand this survey is specific to knitting but we are primarily weavers. There are a significant number of crossover skills in both these textile fields. Would adding weaving machine operators’ skills be beneficial to your program? It would be very useful to us.”

Survey Respondent

Next steps

Share this report with participants and other industrial knitting stakeholders.

These findings will support further discussions with industry and providers around options to support industrial knitting within the vocational education system.

Appendix A – Knitted Product Manufacturing

Definition

The Knitted Product Manufacturing sector is made up of employment in all occupations in the following industries:

Name	Code
Knitted Product Manufacturing	C134000

Appendix B - Survey Questions

Background Questions

1. Does your organisation employ people who work with industrial machine knitting?
 - Yes
 - No
2. How many staff who work with industrial machine knitting are employed in your organisation? (*open text response*)
3. Approximately how many employees in total are there in your organisation?
 - 1-9
 - 10-19
 - 20-49
 - 50-99
 - 100+
4. Rate your current difficulty in recruiting industrial knitting roles? (*sliding scale*)
5. How do you currently train staff in the skills required for industrial machine knitting?
(*Select all that apply*)
 - We do internal training
 - We do external training (workshops or short courses that **do not** lead to a formal qualification which sits the NZ Qualifications and Credentials Framework (NZQCF))
 - We hire staff with existing skills
 - Other (please describe) (*open text response*)
6. Rate the effectiveness of your current approach (scale 1 – 5 with a 'not sure')
7. [If Q5 = B] Please list the course and training provider you use? (*open text response*)
8. Select the options that best describe your engagement with the education system
(*select all that apply*)?
 - a. We have enrolled employees in work-based training leading to a formal qualification.
 - b. We have supported staff through a campus-based qualification at a Polytech or university.
 - c. We have supported staff through an online or distance course.
 - d. We have worked with an education provider to offer students placement or work experience.
 - e. We have employed students during or following completion of a related qualification.
 - f. We have worked with secondary schools.
 - g. We have not engaged before.
 - h. Not sure / not relevant

9. [If Q10 ≠ h or g] Rate the usefulness of this engagement for your organisation?
(Scale) (Rate for each selection)

Industrial machine knitting questions

This background information will help you answer the questions in this section.

There are currently no official qualifications that focus only on industrial knitting in New Zealand. There are some [unit standards](#), but they may need to be updated to make sure they're still relevant.

Because the industrial knitting industry is quite small, it might be difficult for training providers to create and support a full qualification just for this area. In addition, for campus-based providers, the significant investment in equipment may be a barrier.

Feedback from the Industrial Knitting Technical Advisory Group convened by Hanga-Aro-Rau Workforce Development Council (WDC) suggests a different possibility: instead of a separate qualification, industrial knitting skills (through unit standards), could potentially be added to existing general manufacturing qualifications.

These qualifications already support work-based learning, include useful skills like health and safety and communication, and are flexible enough to include industry-specific skills like industrial knitting.

This approach could make it easier for potential providers to support training into the sector. However, any delivery will ultimately be up to potential training providers and the industry demand for training.

10. Would your workplace enrol learners in a general manufacturing qualification with some specific industrial knitting skills?
- Yes
 - No
11. [If Q10 = Yes] Please estimate the number of employees in your organisation who would undertake training each year? (open text response)
12. [If Q10 = Yes] We would like to share your contact details with potential training providers to assist in scoping programme development. We will not share this information with anyone else, nor will we use it for any other purpose; it will be deleted after it is used.

If you consent to this, please provide the following information:

Name:

Role:

Organisation:

Email:

Phone:

13. Which skills should be included in any industrial knitting training? (*select all that apply*)

- Interpret product requirements
- Machine set up and operation
- Machine monitoring
- Machine programming
- Fault finding
- Problem solving
- Service and repairs
- Workplace production knowledge
- Knowledge of yarn properties
- Knowledge of knitted constructions
- Knowledge of machine types and gauges
- Product knowledge
- Quality management
- Process improvement (for example, Lean manufacturing)
- Communication
- Collaboration
- Health and Safety
- Leadership

14. Are there any essential skills missing from the list in question 13? (*open text response*)

15. Is there anything else you would like us to know? (*free text option*)