



New Zealand Fashion and Textile Industry Skills landscape

In 2021 Mindful Fashion convened a Workforce Development Working Group (WDWG) with the objective to facilitate a strategic working relationship between industry and educators, so that learners develop the right skills for employers now and for the future to support a sustainable and thriving fashion and textiles industry in Aotearoa New Zealand. The WDWG comprises representatives from across the industry (designers, brands, textile, service providers and manufacturers across fashion, apparel, knitwear, uniform, workwear and accessories) as well as the tertiary sector.

The group set out with two intentions:

1. Understand the skills gap to better develop a pipeline of skilled workers in Aotearoa New Zealand.
2. Increase the awareness of the diverse range of careers available and build recruitment pathways.

The group first mapped key roles and skills in the industry to develop a Skills Framework. Then a comprehensive picture of supply and demand of skills was built identifying gaps and opportunities. To understand demand trends, the working group conducted surveys and interviews with industry stakeholders. To understand supply, it analysed education and other training pathways.

The intention is for findings to support future education and workforce planning, ensure training provision meets industry, workforce and societal needs, and enable effective recruitment pathways to be developed.

The New Zealand industry has a large local manufacturing base with manufacturing sales value of \$2.1 billion in 2020¹, but the industry is facing skills challenges, many which have been exacerbated by Covid-19. Trends show:

- A marked increase in support for New Zealand brands and in demand for New Zealand manufacturing creating pressure on local businesses to meet increasing capacity demands;
- Pressures on local businesses caused by rising shipping costs and lengthening delays from offshore supply chain partners for manufacturing and materials procurement;
- New market opportunities emerging for the sector at raw material, manufacturing and retail levels, in particular leveraging New Zealand's values-based, innovative reputation.

The current skills landscape

Our key ask of the industry at the start of this project was, “Do we have the skills needed to support a thriving and sustainable industry in New Zealand?” The resounding response was No. We do not. The biggest area of concern around skilled workers was in technical skills, which includes:

- Machining and garment construction;
- Patternmaking, product development, cutting, textiles knowledge;
- Digital - CAD, Clo 3D, design and development software, eg. Adobe suite;

Transferable soft skills also came up as areas of concern, including business skills, leadership skills, and sustainability skills.



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Technical skills

Almost 2,000 businesses make up the manufacturing sector in New Zealand ², with significantly more involved in textiles, retail and distribution. The technical skills required to manufacture garments in New Zealand are integral to maintaining any sort of manufacturing industry here. New Zealand clothing brands and retailers, uniform, workwear and footwear manufacturers, and the screen industry all rely on local manufacturing skills to produce products for local and international markets, including Government agencies.

1. Machining and Garment Construction

There is a critical shortage of skilled machinists. This is a significant pressure point for the industry. Businesses need machinists that understand full garment construction, can put complex garments together to a high standard, can use a range of machinery to a high skill level, have a good understanding of different textiles and can problem solve. Skilled machinists will also play a key role as the industry moves towards a low emissions, circular economy.

- *"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."*
- *"In industry right now the most standout skill set that I'm finding it the hardest to find is proficient sewing and garment construction knowledge. I'm talking about experienced and capable machinists that are confident on industrial machinery and can work with different fabric types."*
- *"The lack of skilled machinists has been an issue. While there are usually people around, in my experience, they have not been suitable for the skill base we require."*

2. Pattern making, cutting, textiles knowledge and product development

Cutting, textile properties and handling, patternmaking and fitting skills, and a good understanding of how garments go together have been identified as skills needed by the industry. Product development skills such as the ability to translate a design to digital specifications, including construction notes and technical drawings, are also needed in particular by larger retailers.

Industry level technical skills are a requirement for many entry level roles in design workrooms, production and merchandising, and were raised by most respondents as a skills gap to be addressed.

- *"Patternmaking and machine skills, even if they don't specifically go into these roles, are so valuable to make them a successful designer/sample assistant or manager etc. There seems to be a lack of understanding around what makes a great garment!"*
- *"There is a massive shortage of skilled pattern makers in NZ."*

3. Digital

There is increasing demand for candidates to be digitally proficient in a number of software packages as the industry moves towards a more digitised system. There is growing interest from local businesses in the



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use of digital design tools such as Clo 3D, and a steady call for the use of Adobe software in particular Illustrator for many product and marketing related roles.

- *"More focus is needed studying CAD & CLO to hit the ground running in industry."*
- *"Illustrator skills are vital. We send all new staff through a training course when they start with us."*

The current pathways landscape

The current mainstream pathway into the industry is via tertiary educational institutions. Through our engagement with industry, we've found that the creation of other pathways such as internships and apprenticeships would also be of great value.

Tertiary Education Pathways

A range of apparel and textile qualifications are currently available at approximately 10 public and private tertiary institutes in New Zealand. There are numerous pathways for students to study for an apparel qualification from Level 3 through to postgraduate study. Level 3 - 5 courses generally provide technical foundational learning, covering pattern-making and garment construction skills, and in some cases design. Level 7 degree courses tend to be more creative and academic focussed with students undertaking research and creating collections, developing designs through to production of prototypes. Overall, based on our engagement with industry, the view is that the qualifications currently available on the New Zealand Qualifications Framework don't meet the entirety of the industry's needs, with a significant focus on design and creative practice, and insufficient depth provided in the technical skills required in the industry.

Other Pathways

Sewing machinist roles comprise, according to infometrics data, 64% of roles in the apparel sector with an average age of 45-49 years², however outside tertiary education there are no formal qualifications available to develop sewing machinist skills to industry standard. Some secondary schools offer textiles technology and unit standards, and 2-3 tertiary institutes offer Level 3 and Level 4 introductory sewing skills training, however there is limited provision for advanced and industry level skills development.

Technical trade-based roles can offer a more vocational pathway into the workforce in many sectors, however the clothing industry currently has no qualification for on-the-job training for trade based roles.

This is an enormous gap, meaning the industry is missing out on many potential recruits who do not suit the academic environment. The industry has been calling for Government support to re-establish an apprenticeship since 2019 but as yet has had no success. Companies are starting to develop their own in-house machinist training programs with no qualification attached, in order to ensure they have the workforce to continue to operate, and remain viable as a business



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Addressing the skill gaps

1. Develop skills pathways into the industry
 - Create training programs for machinists
 - Increase provision of technical skills training
 - Strengthen links between industry and education
2. Grow the pipeline
 - Grow awareness and recruitment pathways

Create training programs for machinists

The industry currently has very limited provision of training for machinist skills. The industry urgently needs support to build pathways and programs that enable development of the skills needed to retain local manufacturing in New Zealand.

Mindful Fashion has validated industry demand for a machinist apprenticeship programme with 15 to 20 apprentices anticipated per year over the first 3 years. It has also validated demand for a short training course of 12-16 weeks to provide introductory skills to machinists wishing to enter the workforce as a trainee, however it has been unable to get support from Government agencies to develop either of these qualifications to date. Progress has been stymied due to the 2020/21 Reform of Vocational Education (ROVE). Engagement with the newly formed Hanga Aro Rau (Manufacturing Workforce Development council) and Te Pukenga Competenz is ongoing.

With trade based roles, different training pathways are known to suit different candidates and different size businesses, therefore provision of both an on-the-job training qualification and tertiary training are required. There is need across the country; Auckland, Hawkes Bay, Tauranga, Wellington and Christchurch.

- *"A lack of machinists is a key constraint we face."*
- *"If we could get 10/20/30 people a year with the basic skills for a machinist that would be a godsend."*

Increase provision of technical skills training

There is currently no pathway for cutters; there is no formal training provision either on-the-job or via tertiary education. The skilled cutters currently working in the industry are in high demand, nearing retirement and most don't have capacity to take on a trainee. Without cutting, the manufacturing industry will no longer be able to operate in New Zealand. Cutters need support now to take on trainees to learn on-the-job, so the industry can continue to operate.

There needs to be provision for skills training in advanced 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. There is a gap in this area with industry requiring a level of skill that graduates don't always attain in current programs.



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Digitisation of the industry is occurring rapidly across design and development, social and e-commerce, supply chain traceability and virtual products for the metaverse. Additionally data analytics, planning and forecasting skills are increasingly in demand. Provision for training of these digital skills is needed now as the industry becomes more customer-connected and digitally savvy.

- *“Most grads want to be designers. But development is where the need is. They don't understand the development role or opportunities.”*
- *“Spreadsheets are a major part of the fashion industry and I think basic Excel training in all the courses would be hugely beneficial.”*

Strengthen links between Industry and Education

Forging closer ties between industry and tertiary educators can help ensure graduates seeking to enter the industry have the skills that the industry is looking for, and to that opportunities for professional development and skills training are available.

Internship and mentorship programs in partnership between industry and education could support learners to gain an accurate understanding of roles, build connections, have access to guidance and identify where they best fit over the course of their study.

- *“Students need to be doing practical internships during or straight after their study, to gain industry experience and reduce the impact on an employer of on-boarding a graduate.”*
- *“While our tertiary institutions are doing a good job of producing design graduates, there still exists a big gap between their academic knowledge and what is required in a commercial setting. Facilitating internships will help bridge this gap for the sector and graduates alike.”*

Grow awareness of careers & build recruitment pathways

The industry needs to build awareness of the wide variety of careers available and work with Government, educators and schools to build recruitment pathways. Career pathways that show a progression path through the industry need to be mapped out for key roles and communicated in an inspiring and engaging way. Educating at a secondary level about all the career paths and capturing learners at a younger age are important to recruit new workers for the industry.

- *“We need to show people making garments, show it as a rewarding industry, that there's a pathway, there's progressions. Tell good stories, show that manufacturing is useful and important.”*
- *“Current courses have a lot of focus on drawing and designing garments, but you need that creative element in most roles in the industry, it's a creative industry. We need to market all the different roles.”*
- *“Promoting sewing machining and production as a worthwhile career would be a huge step up. This is particularly important as we look at our carbon footprint both in terms of where a garment travels and repair/remodel to avoid waste.”*



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Conclusion

The fashion and textiles Industry agrees there is a skills gap in Aotearoa New Zealand. The biggest area of concern is in technical skills, with the industry facing a critical shortage of skilled machinists. The current mainstream pathway into the industry is via tertiary educational institutions, however based on engagement with industry, the qualifications currently available on the New Zealand Qualifications Framework provide insufficient depth in technical skills development required by the industry and additional programs are necessary.

The industry urgently needs support to build pathways and programs that enable development of the skills needed to retain local manufacturing in New Zealand. Concurrently, forging closer ties between industry and tertiary educators can help ensure graduates have the skills that the industry is looking for, and building awareness of the wide variety of careers available will encourage new recruits to the industry.

Local manufacturing brings the added benefit of a reduced carbon footprint compared with offshore manufacturing, and can unlock potential for a local circular economy for clothing.

Activating these enablers will support development of the resilient, diverse and skilled workforce necessary for a thriving industry in Aotearoa New Zealand. One that not only ensures local manufacturing can be retained, but has the ability to grow to meet market demand in a sustainable way.

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** About the data*

Data on the industry in New Zealand is fragmented and therefore presents an incomplete picture..

1 Statistics NZ (2020/21). Data retrieved November 2021.

2 Apparel Sector Profile Report (2019), Infometrics. Downloaded: 24 November 2020.



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Appendix 1.

Workforce Development Working Group Members

Juliette Hogan, CEO / Owner, Juliette Hogan - Brand
Elisha Watson, CEO, Nisa - Brand & Manufacturer
Caitlin Crisp, CEO, Caitlin Crisp - Brand
Sandy Botterill Owner, JohnJohnny - Brand
Mat Junge, GM, Albion - Manufacturer
Emma Ensor, GM, McDonald Textiles - Manufacturer
Belinda Watt, Head of School, Fashion and Sustainability - Whitecliffe College of Art & Design
Lyle Reilly, Senior Lecturer, Auckland University of Technology
Margo Barton, Professor of Fashion - Otago Polytechnic
Sue Prescott, Programme Leader Fashion - Massey University
Nathan Ingram, Program Leader, Fashion - Ara Institute
Cheryl Downie, Discipline Leader - Fashion, Eastern Institute of Technology
Jacinta FitzGerald, Programme Director - Mindful Fashion

External stakeholders

- MBIE Regional Skills leadership Group - Melissa Hall, William Ulugia
- Auckland Unlimited Skills team - Lisa Endersby
- Hanga Ora Rau - Manufacturing WDC - Jahn Vannisselroy
- Toi Mai - Creative WDC - Jeannette Troon
- Competenz - Industry ITO - Lizzie O'Halloran
- IGEA - Game Industry Association, skills mapping project - Jens Schroder
- Creative Sector Skills Development working group

Industry Stakeholders for this paper

- Jane Ellis, CEO - Earth Sea Sky
- Nat Norman, Head of Production - Mons Royale
- Julie Malone, Recruitment and HR specialist - Apparel HR and Rue de Seine
- Emma Wallace, GM - Kowtow
- Emily Miller Sharma, GM - Ruby
- Factory line manager (anonymous)
- Ben Kepes, Owner - Albion Clothing and Cactus Outdoor
- Emma Ensor, GM - MacDonald Textiles and Standard Issue
- Samantha Jones, Founder and CEO - Little Yellow Bird
- Trevor Hookway, Owner - Hawes and Freer
- Steven Greer, Owner - Avenue Clothing
- Fraser Wood, Owner - Stitch Perfect
- Mark, Owner - Cutting Services
- Sue Bailey, Owner - Pattern Potentials
- Kim Holden - Untouched World
- Malcolm Walkinshaw - Seabreeze Apparel
- Jessie Wong, Founder and CEO - Yu Mei
- Bruce Hansen - Tintex
- Juliette Hogan - Juliette Hogan
- Emily May - Jaedon