

ADVICE TO TEC

for investment in 2025

(Submitted in November 2023)



TOI MAI

Workforce
Development
Council

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Section A – Context



A1. Is there any context you would like to provide for your advice?

- We want to see context that directly relates to the recommendations you are making in your advice, rather than general industry insights.
- You may refer us to specific items in another document such as your Workforce Development Plan (please provide page references).
- If this section is not required – leave it blank.

Systemic challenges mean fewer learners can access Toi Mai qualifications – despite increasing demand for a skilled workforce

Declining investment in Toi Mai sub-degree provision

As shown in Annex 1, analysis of NZSCED data confirms feedback received from Toi Mai industries that overall TEC investment in Toi Mai sub-degree subjects halved in value between 2011 and 2022 (inflation adjusted). This is compared to an overall drop in sub-degree investment (of all quals) of only 10%. This is also compared to TEC investment in degree-level provision in industries relevant to Toi Mai, which decreased by about one-fifth of its 2011 value, while overall investment in all subject areas grew by 4% (after inflation adjustment).

At sub-degree level:

- investment in creative qualifications is down by over one quarter to \$36m in 2022 (\$56m in 2011).
- investment in Toi Māori sub-degree quals (\$7m) is approximately 40% less in 2022 than in 2011.
- technology, sport, recreation and GLAMIR investment dropped circa 40% in 2022 below its 2011 value.

This is not the sort of data trend that our industries want to be seeing. As the WeCreate document at Annex 5 shows, the New Zealand creative sector is currently generating around \$15b in GDP (a bigger contribution than agriculture) and is forecast to grow to \$25b by 2030. To achieve this, it needs a thriving and well-trained workforce.

What is concerning about this data is that it reflects provider (including Te Pūkenga and University) business models rather than industry need, which is calling for growth in these subject areas. Providers prefer to reduce what they perceive as technology/equipment/facility-heavy, low-SSR (student-to-staff ratio) and 'niche' in the interests of high-enrollment and high-SSR 'efficiencies' that can deliver higher margins and surpluses. The downward trend is disturbing and requires a conscious reversal at a systems level.

Examples of the impact include the following:

- Te Pūkenga has told us it is the reason behind the closure of MAINZ and the cancellation of two other programmes from Te Pūkenga providers, which is causing a shortage of vocational training provision for musicians.
- The NZ Certificate in Entertainment and Event Technology (level 5) and NZ Diploma in Entertainment and Event Technology (Level 6) are not currently offered by any providers, despite the industry suffering major workforce shortages. We understand that the high cost of developing programmes with the different strands – combined with the potential for only a small number of graduates – has deterred any programme development.

There is also insufficient attention to offering programme pathways

Advice to provision is connected to prior skills and learning as well. In digital technology, industry proficiency lies at level 6, but entry to these qualifications require previous industry experience or completion of a qualification at level 5. So, provision needs to occur through the pathways from one qualification to the next, and our advice reflects this relationship. Please see Annex 2 and 3 for additional Toi Whānui (enabling technologies) data insights, including a programme pathway for Toi Whānui qualifications.

The Unified Funding System (UFS) is still causing difficulties

Providers of outdoor qualifications are facing financial challenges in preparing learners for the industry due to significant decreases in the funding they receive per student since being re-categorised by the UFS. Some courses are currently funded at the A03/F1 rate, which is a drop from historical rates. Given the costs associated with getting a learner industry-ready, including costly staff-to-learner ratios (health and safety requirement) for outdoor activities and the additional expense of trips and equipment, Toi Mai supports a review of funding rates with the recommendation to move courses into a higher funding category. Providers are preparing learners to work in a dynamic environment with significant health and safety requirements, and they require adequate resources to complete this task effectively. We recommend that courses currently funded as F1 are moved to P (F2) category funding to reflect training costs, specialist skills, health and safety-controlled environments, staff-to-learner ratios, travel and equipment.

Workforce Shortages

Because there were no data collection systems for most of our industries prior to the establishment of Toi Mai, it is still hard for Toi Mai to be definitive about workforce shortages in actual numbers. We are building up our methodologies to collect data in this space, and the data collected for Toi Whānui in Annex 2 shows what we are aiming to achieve for all our sectors. However, we don't have the internal capacity to do this all at once, and so for now we still have to rely on insights gathered through the development of our sector-specific workforce development plans (WDPs):

- Through the sector consultation as part of Te Wao Nui o Toi, the screen-sector 'below-the-line' WDP, we heard that workforce capacity is a major concern for the screen sector. Taking into account pre-covid growth, the NZ screen rebate review and recent industrial action in the United States, it is anticipated that screen production in Aotearoa will accelerate and industry skill demand will exceed the available workforce. This applies particularly for crew in 'below-the-line' roles in production and post-production areas (across TV, gaming, film, documentary and series). There is a strong preference for industry-led work-based learning models that are accessible for a variety of learners at different stages in their careers. However, getting exact numbers of skills shortages out of screen production studios is proving to be a major challenge, as they operate in a commercially sensitive environment and there is no single organisation that collects data on crew shortages.
- Hairdressing and Barbering: there is a shortage of senior stylists and qualified barbers. This industry prefers work-based learning and ongoing training for people in work. Recent reviews of hairdressing qualifications and unit standards have resulted in significant adjustments being made. Three make-up qualifications have also recently been reviewed, leading to the introduction of a new level 5 qualification to align with needs identified in the film sector.
- For Art and Design qualifications, we have anecdotal evidence suggesting a need for small business skills and digital design skills. Further research is planned to assess regional variation and the impact of historic training on regional creative success.
- Developing cultural capability for the galleries, libraries, archives, museums, iwi and records (GLAMIR) and conservation sector workforces is a necessity. There is high recruitment demand for these skills within an Aotearoa New Zealand context, but we do not yet have aggregated data to evidence it. Recognising and giving effect to te Tiriti o Waitangi, encompasses an indigenous approach to "grow our own" where tikanga practices are applied to the care, restoration and protection of nationally significant taonga, as well as our whenua. Emerging needs in these industries reflect that mātauranga Māori growth is fundamental for significant cultural skills and a diverse workforce.
- Toi Māori (creation of taonga and the oral arts): anecdotal evidence suggests there is a need for research on the type of Toi Māori qualifications wanted by Māori. With the inclusion of Te Ao Haka and the increase of Toi Māori programmes at secondary school, there is a need for a pathway into training and employment for these students. This may include the pathway from secondary to tertiary study and/or employment in a Toi Māori occupation. The engaging of Toi Māori practitioners to create and support learning resources and programmes should be explored. This would contribute to the development of Toi Māori pathways on a broader scale by increasing the capacity and capability of the Toi Māori workforce. We will be talking to NZQA about what is required to move Toi Māori vocational qualifications from NZQA to Toi Mai, given this is our legislative area of responsibility.

Providers are prioritising longer-form provision

Related to our funding concerns is that providers end up privileging long-form over short-form and work-based training. There is an apparent trend across all Toi Mai sectors where providers are prioritising degrees over certificates and diplomas due to greater certainty of longer-term funding. This contrasts with industry skill demands whereby graduates from shorter-form courses are preferred.

We are also finding it hard to match industry need with provision

For example,

- the circus sector is experiencing high demand for training, but there are currently no providers offering circus training
- piano tuning is in a similar bind with a severe shortage of piano tuners and an aging population of existing tuners training only a few trainees. We have developed a level 4 certificate with the Piano Tuners Guild, but there is currently no one offering it.

Covid Impacts

Our sectors are still suffering from COVID-19-related shortages:

- New Zealand's response to the pandemic precipitated an exit of entertainment and event technicians to leave the country or cross over into film where the pay rates are significantly higher. This has left a critical shortage of technical staff for live events across the country.
- The exercise industry experienced a significant drop-off in exercise professionals during the pandemic and has yet to fully recover staffing/contractor numbers. The industry is also experiencing high first-year turnover of staff that enter into exercise roles, suggesting that many graduates are under-prepared for the challenges of the role. Toi Mai will explore the reasons for this and potential solutions as part of the Toi Ora workforce development plan.
- The outdoor recreation sector is reporting a post-pandemic skills shortage and are having challenges recruiting Māori and other priority learners into the workforce (see Annex 4).

WDCs have a responsibility to advise on mode and scale of provision for all qualifications in our coverage. We have highlighted only a small set of qualifications in this advice as per guidance from TEC. We have focused on industries facing significant skill shortages and where there has been an increase or projected increase in training uptake. This not in any way implying that there is a reduced need for vocational training investment in qualifications that are not highlighted in this document, nor suggesting there are no skills shortages in the industries that are not explicitly mentioned in this advice.

For Toi Mai qualifications not listed in this advice for an increase or decrease, we consider they should be maintained at their current level of investment and provision.

We also acknowledge Toi Mai industries, such as technology, who are facing ongoing uncertainties, and our outlook may change from now to 2025 where we will provide TEC with supplementary material when appropriate.

Section B – TEC investment advice

B1. Which specific qualifications and credentials do you want to see growth in (that can be supported by TEC investment in 2025)?

This is your “give effect” advice. We will consider this to be “give effect” advice when it is appropriately specific and evidenced.

- Please provide the full, accurate name of the qualification or micro-credential as it appears in New Zealand Qualifications Authority [NZQA] records.
- Please ensure the qualifications and/or micro-credentials you list are current (not discontinued or replaced).
- Where your advice is informed by engagement with iwi, hapū, Māori communities and/or Māori business please show this.
- We have expectations around evidence. Refer to the guidance document for details.
- In the template, please state the evidence that you are providing (headings, appendix references or links). We recognise that the table itself is not large enough to capture the kind of evidence that will meet our expectations (as outlined in the guidance).

Qualification or credential	Mode	Specific regions?	Scale of change you are seeking for 2025	Evidence of workforce need – include as text below the table or an attachment	Evidence that this provision will meet the workforce need	WDC-assigned priority level (for this advice)
Example: New Zealand Certificate in Security (Foundation) (Level 3) (3642)	All	All regions	900 learners a year (up from 500)	The security workforce has increased by 30% in the past 6 years, however enrolments are down from around 130 EFTS per year pre-COVID to 88 EFTS in 2022. Data showing workforce growth and projected growth (see Appendix 1 – Security workforce data).	Recorded feedback from stakeholders linking the L3 cert to work outcomes (endorsed by 6 major employers covering around 50% of the workforce) (see Appendix 2 – Security industry engagement summaries).	
Toi Pāho (Broadcast & Screen Sector) qualifications						
New Zealand Diploma in Screen Production (Level 5) [Ref: 3212]	All	All	Maintain funding Toi Mai cannot yet accurately quantify the provision need due to insufficient data on below-the-line workforce size in relation to any forecast workforce demand. This data has not been collated centrally by the sector and is a large piece of work that Toi Mai is currently addressing.	Current graduate rates for level 5: 725 graduates 2018–2022, averaging 145 graduates per year. Workforce capacity: The New Zealand Film Commission have indicated that six large international productions are seeking New Zealand as a location in the next two years. However, New Zealand's current facilities and workforce could only support two-to-three of these large international productions per year, and this would also pose a challenge to the provision of workforce for domestic production (10–12 projects per year). In 2020–21, the screen production sector	The Toi Pāho workforce development plan, Te Wao Nui o Toi, is available here . At industry request, the WDP focused on the need for more capacity in the below-the-line (production and post-production) workforce. Above-the-line roles, like producer, director, writer and lead actor, tend to utilise longer, more formal training pathways or require substantial industry experience. The sector challenged current vocational training modes, preferring work-based models, and has a strong desire to coordinate production needs with workforce	

				<p>employed 6,451 workers directly. The number of New Zealand firms making productions increased by 8.3% 2015–2020, with the number of screen firms in Wellington almost doubling during this time (MBIE Econ Trends report). The 2018 screen workforce comprised 58% in managerial/professional roles and 14.3% in tech and trade roles (below-the-line).</p> <p>From 2014 to 2020 there was a 20% annual growth in production activity. Much of this growth (33%) is in the post-production sub-sector.</p> <p>70% of screen firms have experienced difficulty hiring crew (Screen Sector survey 2022).</p> <p>NB: There were 3,718 graduates from level 7+ between 2018 –2021, averaging 930 graduates per year.</p> <p>The Olsberg Report: Economic Impact of the New Zealand Aotearoa Screen Production Sector is available here. Page 35 is particularly relevant. Economic Trends in the New Zealand Screen Sector can be found here.</p>	<p>training – but unlike other sectors, it has never had an ITO that could focus on this.</p> <p>The level 5/6 diploma was reviewed in 2023 and endorsed by industry. The advisory group for this review implemented changes to the qualification to ensure industry engagement in the delivery of the qualification and that core skills required for below-the-line crew roles were being included.</p>	
New Zealand Diploma in Screen Production (Level 6) [Ref: 3213]	All	All	As above	<p>Current graduate rates for level 6: 190 graduates 2018–2022, averaging 40 graduates per year until 2022 (130 graduates). Workforce capacity is as outlined above.</p>		
New Zealand Diploma in Journalism (Level 5) [Ref: 3208]	All	All	Toi Mai cannot accurately quantify a provision increase due to a recent qualification change.	<p>A recent qualification change is expected to increase the number of students enrolled in the diploma. This diploma was reviewed in 2022, and there will be a transition time for providers to update or develop their programmes.</p> <p>Between 2019 and 2022, there have been 10 reported graduates from this qualification. Infometrics has forecast a growth of around 1.3% of journalists across the economy by 2025.</p>	<p>Qualification was endorsed by industry as part of the review, with industry calling for more work-integrated learning.</p>	

Toi ā-Ringa (Art & Design) qualifications						
New Zealand Certificate in Hairdressing (Professional Stylist) (Level 4) [Ref: 2413]	All	All	1,985 learners a year (up from 1,715 in 2022).	<p>A related provider-based qualification (New Zealand Certificate in Hairdressing (Emerging Stylist) (Level 4) [Ref: 2412]) will expire at the end of 2026, and by 2025 providers either will have transitioned or will be in the process of transitioning into programmes leading to this qualification instead. Providers are forecasting that numbers of those now completing Q2413 in their context will be comparable with those who have previously completed Q2412. Between 2020 and 2022 there was a total of 810 EFTS for Q2412 with an average of approximately 270 EFTS per year.</p>	<p>Qualification was endorsed by industry as part of the review, with industry calling for more senior stylists.</p>	
Toi Whānui (Enabling Technologies) qualifications						
New Zealand Diploma in Cybersecurity (Level 6) (3837)	All	New provision is needed in Waikato and Wellington to meet industry skill need.	60 extra students per year.	<p>According to OECD's targeted research on building a skilled cybersecurity workforce in five countries, the number of new job postings for cybersecurity professionals in New Zealand has steadily increased since 2017. Compared to Australia, Canada, the United Kingdom and the United States, New Zealand has the highest demand for cybersecurity analysts, architects and managers. Microsoft has noted a 65% growth in cybersecurity roles without a commensurate increase in the number of people with cybersecurity skills. However, the enrollment in this programme has remained at roughly 68 EFTS annually since 2020, and provision is mainly in Auckland and Christchurch (with a small cohort in Manawātū). The second and fourth largest regions for digital technology employment (Wellington and Waikato) have no current provision for pathway into the workforce.</p>	<p>From NZTech's Digital Skills Tomorrow, Today report: "Demand remains strong for workers with advanced digital skills, with 1,039 new roles created across software and application programmers and ICT managers alone in 2021. Internationally, emerging areas of demand include artificial intelligence (AI), cloud computing and cybersecurity. Similar trends are beginning to emerge locally" (20).</p>	

New Zealand Diploma in Software Development (Level 6) (2604)	All	All	60 extra students per year.	Between 2018 and 2022, the workforce size for software engineers has increased by 22.5%. Infometrics has predicted another 5% increase this year. However, enrolments are down from 333 EFTS in 2020 and 2021 to 200 EFTS this year.	In the 2023 digital skills survey Toi Mai conducted in conjunction with NZTech and released as part of the Digital Skills Tomorrow, Today report, the responses indicated that: <ul style="list-style-type: none"> • high demand for software-related roles remains. "Software developer" was the highest role in demand, with 61% of respondents recruiting in the last 12 months. • the second highest in-demand role is software engineers, accounting for 36% of respondents (38).
New Zealand Diploma in IT Infrastructure (Level 6) (4129)	All	All	60 extra students per year.	In the Building Digital Skills for the Changing Workforce report, prepared by strategy and economics consulting firm AlphaBeta and commissioned by Amazon Web Services (AWS), 67% of workers surveyed in New Zealand feel they will require training in cloud-based skills by 2025 to progress in their careers. Additionally, the new white paper from International Data Corporation (IDC) commissioned by Microsoft predicts the adoption of public cloud will generate billions of dollars in new revenue for organisations within the cloud technology ecosystem in Australia and New Zealand by 2026. Meanwhile, the cloud adoption and adjacent areas like security, data mining or analytics will create 134,000 jobs in New Zealand. About 20% of these jobs will require specific technical and IT-related digital skills. The enrollment in this program has been at a minimal level since it was introduced in 2020.	As above, the Digital Skills Tomorrow, Today report identified "steadily rising demand for skilled workers in the local tech industry . . . [D]emand for advanced digital skills continues to grow at a relatively steady rate. This is expected to continue with particular demand for skilled workers in AI, big data analytics, cloud applications and cybersecurity" (43).
New Zealand Certificate in Applied Software Development (Level 6) [Ref: 4663]	All	All	60 extra students per year.	Between 2018 and 2022, the workforce size for software engineers has increased by 22.5%. Infometrics has predicted another 5% increase this year. This qualification is aimed at career changers.	Qualification was endorsed by industry as part of the review, with industry calling for more work-integrated learning.

Toi Ora (Sport, Recreation & Cultural Organisations) qualifications						
NZ Certificate in Outdoor Leadership (Level 4) [Ref:3662] NZ Certificate in Outdoor Leadership (Guiding) (Level 5) [Ref: 3660] NZ Certificate in Outdoor Leadership (Instruction) (Level 5) [Ref: 3661] New Zealand Certificate in Outdoor Senior Leadership (Instruction) (Level 6) with strands [Ref: 3663]	All	National	Increase funding. Also, change the funding category to a higher rate per student. This is for provider-based and work-based provision in all outdoor recreation qualifications. Increase in skilled workers and specifically Māori, Pacific, female and other priority learners.	Outdoor recreation as a category is currently funded at the F1 level under the UFS, which Toi Mai considers in need of reviewing. Provision of training to industry health and safety standards is proving financially challenging for providers due to funding changes following implementation of the UFS. This in turn impacts the 'industry readiness' of graduates due to compromised field time. Outdoor recreation courses are expensive to run with respect to staff-to-learner ratios, outdoor trips, equipment, significant health and safety requirements, and more. The UFS is inhibiting providers' ability to produce well-equipped graduates for the industry. Industry is reporting skills shortages across all roles in outdoor education. Please see Annex 4 for occupation employment numbers across the outdoor recreation sector.	Please see Annex 4 for employment numbers across the outdoor recreation sector.	All
NZ Certificate in Conservation (Operations) (Level 4)	All	West Coast	10 learners per year.	Te Tai Poutini West Coast has the largest proportion of conservation land at 84% in comparison to any other rohe of Aotearoa. The implication is that a skilled and capable conservation workforce is required to restore, protect and preserve the natural assets of the West Coast, which has financial benefits for the local economy (e.g. tourism). Te Tai Poutini West Coast Region Skills Needs Advice for the Tertiary Education Commission advises that "Conservation (Nature Based) is an emerging industry on the West Coast. There is a desire to 'Grow our Own' people and staircase them to opportunities in the industry on the West Coast. A pipeline from high school onto tertiary study is currently lacking. Key stakeholders support the noted provision."		

Toi Puaki (Expressive Arts) qualifications					
NZ Certificate in Piano Tuning Technician (Level 4)	Not extramural	All	10 learners per year.	This certificate was developed with industry in 2023 to meet the shortage of piano tuners. The volume of provision required is small as this is a relatively niche – but essential – industry. However, industry reports an international shortage of skilled piano tuners, an inability to attract skilled staff and difficulty in finding programmes they can enrol in.	Piano Tuning Needs Analysis: The New Zealand Piano Tuners and Technicians Guild Inc. (Needs Analysis).docx
NZ Certificate in Entertainment and Event Operations (Level 3) [Ref: 3416]	Not extramural	All	50 learners per year.	This certificate and the one below were reviewed in 2022 and are highly valued by the sector. However, during the Covid period there was an exodus of people out of the industry and/or out of the country. As a result, industry and related sectors report a critical shortage of event and entertainment technicians across the country.	The Worker Shortage Dimming Theatre Lights (newsroom.co.nz) Te Mahi Ako 2020 workforce scan reported a shortage of live event technicians: Performing-Arts Workforce-Scan-2020-FINAL.pdf
NZ Certificate in Entertainment, Event and Screen Technology (Level 4) [Ref: 3417]	Not extramural	All	50 learners per year.	This certificate was reviewed in 2021 to incorporate screen-industry roles. During the Covid period, there was an exodus of people out of the industry and/or out of the country. As a result, industry and related sectors report a critical shortage of event and entertainment technicians across the country.	See above.

What will TEC do with this advice?

When the evidence threshold is met, advice of this type forms the targeted priorities for vocational education in Plan Guidance. The targeted priorities directly impact:

- the consideration of new providers (providers that have not received TEC funding in the last year)
- additional funding requests (funding increases for providers in specific areas).

All funding decisions are made based on a range of factors, including the targeted priorities. We will also consider other factors such as provider performance and stability, regional distribution of training, learner outcomes and the success of under-served learners.

B2. Which specific qualifications and credentials do you want to see decreases in (that can be supported by TEC investment in 2025)?

This is your “give effect” advice. We will consider this to be “give effect” advice when it is appropriately specific and evidenced.

- Please provide the full, accurate name of the qualification or micro-credential as it appears in NZQA records.
- Please ensure the qualifications and/or micro-credentials you list are current (not discontinued or replaced).
- Where your advice is informed by engagement with iwi, hapū, Māori communities and/or Māori business please show this.
- We have expectations around evidence. Refer to the guidance document for details.
- In the template, please state the evidence that you are providing (headings, appendix references or links). We recognise that the table itself is not large enough to capture the kind of evidence that will meet our expectations (as outlined in the guidance).

Qualification or credential	Mode	Specific regions?	Scale of change you are seeking for 2025	Evidence of workforce need – include as text below the table or an attachment	Evidence that this provision will meet the workforce need
Example: <i>New Zealand Certificate in Floristry (Level 2) NZ 2671</i>	<i>Online</i>	<i>All regions</i>	<i>Reducing to 100 EFTS or less over the next 3 years.</i>	<i>The evidence of workforce need is shown in Appendix 4 (nb data for this occupation is less well developed).</i>	<i>Recorded feedback from stakeholders states that employees learning through online courses are significantly less prepared for work than those who learn face-to-face (see Appendix 3 – industry engagement summaries).</i>

Toi Whānui (Enabling Technologies) qualifications

New Zealand Certificate in Computing (Level 4) (Advanced User) [Ref: 2593]	All	All	Enrolments have already declined, but we wish to stop any provider offering the programme before it expires.	The enrollment in this qualification has steadily declined, and there are alternative pathways that staircase into level 5 qualifications. It will be reviewed next year and likely discontinued.	
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What will TEC do with this advice?

As this advice impacts investment, we have a threshold of evidence that we expect the WDC to meet. Assuming that is met, advice of this type forms the targeted priorities for vocational education in Plan Guidance.

For recommendations relating to disinvestment, TEC will typically engage directly with impacted providers. Those providers may seek the rationale directly from the relevant WDC.

All funding decisions are made based on a range of factors, including the targeted priorities. We will also consider other factors such as provider performance and stability, regional distribution of training, learner outcomes and the success of under-served learners.

B3. Which specific qualifications and credentials do you want to see changes in 2025?

This advice may be “give effect” or “have regard”.

- You can advise on changes such as increased diversity or mode changes.
- Please provide the full, accurate name of the qualification or micro-credential as it appears in NZQA records.
- Please ensure the qualifications and/or micro-credentials you list are current (not discontinued or replaced).
- Where your advice is informed by engagement with iwi, hapū, Māori communities and/or Māori business please show this.

Qualification or credential	Mode	Specific regions?	What is the change you are wanting to see?	Evidence of workforce need – include as text below the table or as an attachment
Example: <i>New Zealand Certificate in Horticulture (Level 3) Strand: Wine Growing</i>	<i>Not specific</i>	<i>No, but we would expect a lot of delivery to center around Marlborough especially for work-based learning.</i>	<i>Increased enrolments of Māori learners</i>	<i>Māori only made up 8% of the grapes and wine workforce in 2020 (see attachment).</i>

Toi Pāho (Broadcast & Screen Sector) qualifications

New Zealand Certificate in Content Creation (Level 4) [Ref: 4789]	All	Any – but particularly Auckland, Tauranga and Hawkes Bay.	Increase in provision (replaced New Zealand Certificate in Communications Media (Level 4) [Ref: 3206]).	
New Zealand Diploma in Content Creation (Level 5) [Ref: 4790]	All	National for Iwi Radio Stations kaimahi, Auckland and Christchurch.	Increase in provision (replaced New Zealand Diploma in Radio Broadcasting (Level 5) [Ref: 3210]).	

Toi Puaki (Expressive Arts) qualifications

New Zealand Certificate in Entertainment and Event Operations (Level 3) [Ref: 3416]	Not extramural	National	Increased enrolments for Māori, Pacific and women.	Industry advises a workforce shortage of event and entertainment technicians and a lack of diversity. In 2018–2023 there were 244 graduates including 11 women, 28 tāngata Māori, and 11 tāngata Pacific.
New Zealand Certificate in Entertainment, Event and Screen Technology (Level 4) [Ref: 3417]	Not extramural	National	Increased enrolments for Māori, Pacific and women.	Industry advises a workforce shortage of event and entertainment technicians and a lack of diversity. From 2018–2022 there were 65 graduates but no breakdown in this data regarding ethnicity or gender. However, in the enrollment data for this period, there are 25/110 women, 35/110 tāngata Māori, and 10/110 tāngata Pacific.

Toi Whānui (Enabling Technologies) qualifications

New Zealand Diploma in Information Technology Technical Support (Level 5) [Ref: 2596]	Work based learning	All	100 EFTS for the work-based learning model. Increase in funding for work-based delivery – currently developing skills standards (for publication by March 2024) for this qualification. First pilot will be in 2024 with the full roll out in 2025.	It is well evidenced that women, Māori and Pacific peoples have low representation in today's digital skills workforce. According to NZTech's report, Digital Skills for Tomorrow, Today, of students graduating with IT degrees in 2021, 24% were female, 4.5% were Māori and 4.2% were Pacific People. In addition, for the overall sector, Māori represent 4.8%, Pacific peoples 4.4%, and women, 29% of people employed in the sector, all below population parity demographics.
New Zealand Diploma in Software Development (Level 6) [Ref: 2604]	All	All	To increase the enrollment of Māori, Pacific and female learners, as both ethnicity groups only represent 4.10% and 2.20% average in previous cohorts. And female learners' average representations in previous cohorts was about 11% (in all three instances, these are below the industry averages for these cohorts, which are already low).	It is well evidenced that females, Māori and Pacific peoples have low representation in today's digital skills workforce. According to NZTech's report, Digital Skills for Tomorrow, Today, of students graduating with IT degrees in 2021, 24% were female, 4.5% were Māori and 4.2% were Pacific people. In addition, for the overall sector, Māori represent 4.8%, Pacific peoples 4.4%, and women, 29% of people employed in the sector, all below population parity demographics. Further, from Digital Skills for Tomorrow, Today: "Throughout efforts to grow Aotearoa New Zealand's supply of skilled tech workers, there is a significant opportunity to increase the diversity of our tech and digital workforces – and significant risks if we fail to do so. Currently, the reliance on immigration to fill advanced digital roles means many digital technology teams are relatively diverse in terms of race and ethnic background. However, the makeup of our tech workforce does not reflect our population, with women, Māori, Pacific peoples, disabled and neurodiverse and non-binary people significantly underrepresented. This lack of diversity is a longstanding challenge with significant negative impacts. However, it presents a large opportunity to bring new and more diverse participants into the tech workforce, helping fill the skills shortage while also making tech and digital teams more inclusive. Businesses and the government will need dedicated investment and commitment to make this happen" (53).

Toi Puaki (Expressive Arts) qualifications

New Zealand Certificate in Exercise (Level 4) [Ref: 3563]	All	National	Increased opportunity for learners to gain real-world industry experience on their pathway to achieving L4 Exercise qualifications (or higher) by embedding a L4 Micro-credential (Exercise Fundamentals) within the Exercise L4 certificate. This micro-credential can also be completed as a stand-alone to give a broader range of learners an achievable pathway into the exercise industry (under limited scope).	Feedback from industry has identified a need for people to enter the exercise environment earlier in their study pathway under a limited scope of practice. This will address a lack of interpersonal skills and real-world practical experience in their workers, both of which are required to operate in the industry safely and effectively. The development of skill standards in 3563 allows for the delivery of stackable blocks of learning, which will enable work placement during study or the ability to work as a contracted/employed personal trainer or gym trainer while 3563 is completed. The first of these skill standards will be developed alongside the proposed exercise fundamentals micro-credential to allow registered exercise professionals' provisional entry into a workplace.
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What will TEC do with this advice?

TEC can communicate to providers the changes we want to see. However, this kind of advice is more complex both to give effect to and to measure the impact of giving effect to. Because TEC allocates funding in advance, we will not know at the time of funding what the demographics of the future cohort will be. After delivery has occurred there are some demographics we can report on and some that we will not be able to identify in our data. For example, we will be able to measure how many learners on a qualification identify as Māori; however, we would not be able to identify the number of learners who were career changers.

Section C – New providers



C1. Are there qualifications or credentials that you want TEC to consider new providers for?

This advice may impact the approval of new providers.

- This is the place to signal where you want to see new providers in a specific area of provision but the provision as a whole is not a priority for growth.
- This may relate to ensuring that the available provision is adequate or more diverse (and that this requires more providers).
- Where your advice is informed by engagement with iwi, hapū, Māori communities and/or Māori business please show this.

Qualification	Mode	Specific regions?	Rationale for inclusion	Evidence
<i>Example:</i> Certificate in Maritime Operations (Level 4)	Not extramural	Any but particularly Northland, Marlborough and Nelson	The volume of provision required is small (as this is relatively niche); however, industry reports both an inability to attract skilled staff and difficulty in finding programmes they can enrol existing staff in.	Appendix 1 – workforce size by region with projected growth Appendix 2 – summary of industry engagement (with indication of scale)
Toi Puaki (Expressive Arts) qualifications				
NZ Diplomas in Performing Arts (Circus, Musical Theatre, Pacific Dance) level 4, 5 & 6	Not extramural	Any – but particularly Christchurch and Auckland.	The focus here is on circus. The volume of provision required is small as this is relatively niche, however industry reports an inability to attract skilled staff and difficulty in finding programmes they can enrol in.	Graduate Profile Report 2022
Toi Whānui (Enabling Technologies) qualifications				
New Zealand Certificate in Applied Software Development (Level 6) [Ref: 4663]	All	All	As the country has a great demand for a range of software-related roles, graduates may progress to further education pathways, including higher-level IT-related qualifications and industry certifications in Develops, AWS, Software Testing and IT Security. Additionally, they will also have skills and knowledge to be employed in entry-level development roles such as software developer, web developer and software engineer.	See Section F for industry growth projections.
New Zealand Diploma in Cybersecurity (Level 6) [Ref: 3837]	Not extramural	Waikato and Wellington.	We have reached a provision capacity with current providers and need to expand provision to meet workforce demand.	See Section F for industry growth projections and current provision.
New Zealand Diploma in Software Development (Level 6) [Ref: 2604]	All	All		See Section F for industry growth projections.

What will TEC do with this advice?

This advice will inform TEC's criteria for and assessment of new provider requests.

Section D – New qualifications and credentials



D1. Are there qualifications or credentials that you are developing or plan to develop that will be available in 2025?

This section is important for signaling future qualifications or credentials you may wish us to prioritise investment in.

- This is the place to tell us about any qualifications or credentials that you intend to develop or revise that may be available in 2025. Include any new qualifications or credentials that will replace existing options that have been identified as no longer fit for purpose.
- When we get to in-year additional funding we will be looking for further information on already signaled priorities – this is the place to signal those future priorities.
- Where your advice is informed by engagement with iwi, hapū, Māori communities and/or Māori business please show this.
- This will be “have regard” advice until the qualifications and/or credentials are listed on the framework.
- It is important to signal here any qualifications or credentials you may want to provide supplementary advice on at a later date.

Area of provision and/or qualification/credential name (if known)	Level	Mode (if specific)	Qualification or micro-credential	Estimated date it will be available	Description of content (10–20 words)	Name of qualification or micro-credential this will replace (if relevant)
<i>Example:</i> <i>Not yet named – Demolition industry</i>	TBC	TBC	TBC	Mid-year	<i>Course will contain content on how to manage personal and environmental safety, and better manage the significant waste that goes to landfills.</i>	N/A
Exercise Fundamentals	4	All	Micro-credential	June 2024	Will contain how to deliver pre-designed or approved individual or group exercise experiences under indirect supervision, and demonstrate corrective coaching, affording learners the ability to gain industry exposure earlier in their study pathway.	N/A
Introduction to Screen Sector	3	TBC	Micro-credential	Feb 2024	Knowledge of the screen industry in Aotearoa and roles and pathways within it as well as business skills required as a self-employed contractor.	N/A
Business Skills for Creative Sector	3-5	TBC	Micro-credential	Sept 2024	Potential for several micro-credentials at different levels to support skills in entrepreneurship, strategic planning, business start-up, digital business, self-marketing and creative practice.	N/A

New Zealand Diploma in Prosthetics, Performance Make-up, and Special Effects	5	TBC	Qualification	Feb 2024	Will contain skills and knowledge to design, manufacture and fit performance prosthetics, and design and create performance makeup and special effects.	New Zealand Certificate in Performance Makeup and Prosthetics (Level 4) [Ref: 3455]
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What will TEC do with this advice?

This advice supports TEC's future planning. When these new qualifications or credentials are developed, providers will come to TEC for funding. We want to be aware of what you intend to create or revise and understand their importance to industry.

Section E – Future workforce needs



E1. Can you tell us about any emerging skill needs or major projects for your sectors which you expect to impact workforce needs and tertiary education in the future?

This section captures significant future tertiary education and training needs you see emerging beyond the planned funding year (changes in or after 2026).

- You may be aware of a future skill need or major project in one of your sectors that you expect will impact on workforce needs and tertiary education in the future.
- For example, this could include:
 - a change occurring in industry
 - a significant shift in the skill needs in a sector (that will impact qualifications and training) major infrastructure projects
- This is “have regard” advice as it does not provide specific, evidenced recommendations about the mix of vocational education and training TEC invests in.

Area of need or project	Expected occupations or skills that may be impacted	Time-frame	Who is involved (from tertiary education) eg, WDC, providers etc
<i>Example:</i> Growth of solar power	Engineering, installation technician, electricians	Unclear	We are working with the sector to review the current qualification offering to ensure the things are needed are covered. This may result in some new qualifications and credentials being developed.
Growth of screen sector (film, TV, game development, broadcasting)	48% of film and TV shortages were identified in production, camera, location, lighting, grip and costume departments (Screen Sector Survey 2022). Also, more artists, production technicians, digital technicians and production managers are needed for the wider Toi Pāho sector.	2024 ++	<p>The screen sector in Aotearoa is experiencing the same exponential growth in content-making for screen that is occurring worldwide, in a trend that started pre-Covid. The 2022 Sector Survey indicated that 70% of screen firms had experienced difficulty hiring in below-the-line role areas in the past year.</p> <p>Toi Mai has worked with the sector regarding their identified shortfall in below the line/production workforce capacity, and training that will help address this in a responsive, nimble and industry-led way. Current diploma qualifications, delivered by six providers, have been reviewed to ensure better alignment with industry.</p> <p>Over 70% of the Toi Pāho workforce are contract workers. Toi Mai is now working on new, short-form, work-based learning opportunities that will work more flexibly within this dynamic, tech-driven, project-based sector to improve accessibility and diversity of its workforce (in the game development sector just 3% are Māori and Pacific, and 25% are female; in Toi Pāho overall, women make up 45% of the workforce, 17% are Māori, 6% Pacific and 10% Asian).</p> <p>This sector has lacked coordinated training pathways, with 53% citing lack of funding and 40% lack of relevant training as barriers (Screen Sector Survey 2022).</p>

Artificial Intelligence (AI)/ Prompt Engineering	Software development	Unclear	AI has already been a disrupter in the digital technology space, both as a tool to enhance capability and productivity, and a potential disruptor to current roles within the sector. The disruption will only grow. Currently, there is no provision of new roles that use AI (such as prompt engineering) within New Zealand, and a range of products from micro-credentials through to certificates and diplomas may need to be developed. In upcoming reviews of IT qualifications, this new area will need to be interrogated and understood.
Ongoing Tech Sector Growth	Software development, cloud, cybersecurity, data analytics, testing and more.	Unclear	Even with conservative growth, the digital technology section will grow by another 30,000 people in technologist roles by the end of the decade, according to Infometrics data. However, provision has stagnated and declined over the last decade, and in order to meet workforce need, more provision will be required. This will also require the development of fit-for-purpose qualifications that are able to adapt to quick shifts and changes in industry trends, new products and innovations.
Shortage of (Māori) Conservators	Conservators	Immediate	No provision of conservator qualifications in Aotearoa, which is currently contributing to serious workforce shortages. One impact is museums having to recruit from overseas. This is a significant concern – particularly for the Māori conservator workforce who play a critical kaitiaki role in the care and restoration of taonga significant to the culture and heritage of Aotearoa, which overseas recruitment cannot fulfil. Consequently, this does not align with te Tiriti o Waitangi partnership between iwi Māori and the Crown. The sector is currently seeking to develop an entry level qualification for an Indigenous Conservation Technician. However, it is facing challenges given the workforce numbers to meet industry needs is small and niche. One implication is this hinders the ability to attract providers who would be willing to take on and deliver the proposed qualification due to inadequate funding.
Cultural and digital capability skills	Galleries, libraries, archives, and museums (GLAM)	Unclear	Research was conducted in 2021 in relation to the digital capability in the GLAM sector of Aotearoa (Digital Capability Research – National Digital Forum (ndf.org.nz)). The findings confirmed that out of 308 survey and 11 interview participants, 50% are not confident in their organisation's ability to appropriately store iwi-related digital collections, and 60% are not confident around creating content with Māori knowledge and stories in a way that adheres to tikanga. This has led to the following research recommendations that highlight emerging skills required by the GLAM workforce: The sector needs to address the lack of capability and confidence for a wide range of issues at the interface of digital practice and mātauranga Māori. The sector needs to place more value on digital skills and prioritise investment in workforce digital capability learning and development.
Impact of climate change on the conservation and environmental sectors	Conservation	Unclear	In 2020, the Government announced a climate change emergency and committed to a carbon-neutral government by 2025. This raised the “alarming trend in species decline and global biodiversity”, including associated impacts for iwi, hapū and whānau. As climate change evolves in Aotearoa, it is critical that relevant conservation and environmental training and qualifications keep responding to the emerging biodiversity needs of Aotearoa through industry recruiting and maintaining, skilled and capable workforces.

Mātauranga Māori and under served ākonga	Librarians, Conservation	Unclear	<p>The research paper "It's not just a professional development thing": Non-Māori librarians in Aotearoa New Zealand making sense of mātauranga Māori (Oxborrow, 2020) highlights that the library sector in Aotearoa is founded upon a Western understanding of knowledge different to that of te ao Māori. This has led to "... traditional library approaches and values are incompatible with the needs of Māori stakeholders or collections, including approaches to access, cataloging and classification and working with Māori language". It highlights a need to update relevant qualifications incorporating foundational mātauranga Māori, which will also cater to under served ākonga and encourage their willingness to learn mātauranga Māori to meet emerging cultural skills required by the library sector.</p> <p>Similarly for the conservation sector, Te Mana o te Taiao – Aotearoa NZ Biodiversity Strategy (ANZBS) 2020 recognises the Crown's legislative accountability to actively engage with iwi, hapū and whānau to acknowledge te Tiriti o Waitangi (Section 4 of the Conservation Act 1987). This reinforces the relationship Māori have with the whenua and all living things, which are interconnected within the te ao Māori worldview. For example, the framework Atua Matua is based on research conducted by Dr Ihirangi Heke and is about, "... simply re-purposing ancient Māori environmental knowledge into contemporary environmental sustainability, health/well-being and ESG business practices." Both the Crown and local government now require their conservation workforce to develop and maintain relationships with iwi in order to receive funding. Therefore, a need to incorporate mātauranga Māori into relevant conservation and environmental management qualifications is becoming more important in Aotearoa. One positive impact of this is under served ākonga will be able to identify and deepen their own relationship with traditional cultural knowledge and meet the emerging cultural needs of the conservation and environmental sectors.</p>
Conservation workforce skills potentially requiring integrating into qualifications outside of the current provision of Toi Mai	New Zealand Certificate in Pest Operations (Level 3) monitoring and/or control strand; Horticulture (Level 4) nursery skills Regeneration of native forest; New Zealand Certificate in Primary Industry Operational Skills (Level 3); New Zealand Certificate in Horticulture (General) (Level 3); New Zealand Certificate in Conservation Operations (Level 4), New Zealand Certificate in Outdoor and Adventure Education (Level 4) and New Zealand Diploma in Outdoor and Adventure Education (Level 5) both with Toi Mai	Unclear	<p>Evidence: RSLG Te Tai Poutini West Coast Region Skill Needs Advice for the Tertiary Education Commission, prepared by Te Tai Poutini West Coast Regional Skills Leadership Group (April 2023).</p> <p>We will seek to work with other WDCs and relevant sectors to review the current qualifications offered to ensure the things that are needed in terms of conservation workforce skills are covered. This may result in some new qualifications and credentials being developed.</p>

Iwi, hapū and whānau caring for taonga delivered by Māori-led providers	Museums, archives	Unclear	Cyclone Gabrielle deeply impacted iwi, hapū and whānau in the affected regions where they suffered damage to marae, urupā, and taonga (Mana taonga in action: Cyclone Gabrielle recovery in Ngāti Kahungunu Te Papa's Blog). This highlights a need to incorporate further mātauranga Māori practices and training into museum- and archive-related qualifications (and that there is a number of Māori-led providers that can deliver these) in order for under served ākonga from iwi, hapū and whānau to maintain, restore and protect their culture and heritage items. The expected outcome is that there is an increasing movement of iwi, hapū and whānau being the sole kaitiaki of and whakapapa to taonga based in their marae, urupā and other cultural settings (as opposed to being placed in the care of museums and/or archive organisations founded upon Western worldviews, lack of kaimahi Māori who hold kaitiaki roles or have no whakapapa to taonga held).
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What will TEC do with this advice?
 This advice will help TEC plan for future education and training investment needs.

Section F – Other



F1. Is there anything else you would like to advise TEC of (in relation to investment in vocational education and training)?

This section provides you with a space to record matters the template does not cover.

- Please ensure that advice to TEC is within TEC's role to action. It is important that advice is given to the correct government agency to be actioned. If you are unsure about this, refer to the guidance document.
- If this section isn't relevant leave it blank.

NZ Certificate in Entertainment and Event Technology (level 5) with strands in Entertainment Rigging, Lighting, Audio, Vision, Stage Management, Stage Mechanics and Scenic Construction [Ref: 4493] and NZ Diploma in Entertainment and Event Technology (Level 6) with strands in Entertainment Rigging, Lighting, Audio, Vision, Stage Management, Stage Mechanics and Scenic Construction [Ref: 3430]. This qualification is not currently offered by any providers. We understand that the high cost of developing programmes with the different strands combined with the potential for only a small number of graduates has deterred any programme development. Strategic funding could encourage and support providers to develop programmes for these qualifications – especially given the chronic shortage of live event technicians. See narrative above in Section B1.

Annex

Annex

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Annex 1. Tertiary Provision Analysis of NZSCED data

Areas of analysis

- Sub-degree (L2-7 Non-Deg) qualification investment
- Degree level (L7+) qualification investment
- Sub-degree investment:
2011 vs 2022
Value
Proportion
- Sub-degree vs degree creative investment:
2011 vs 2022

Key findings – L2-7 (non-deg) Investment: 2011 vs 2022

When adjusted for inflation investment in Toi Mai related qualifications by TEC have halved in value:

\$144m vs \$90m

Toi Mai related nominal investment value
2011 vs 2022

16.8% vs 9.5%

Toi Mai related nominal investment proportion
2011 vs 2022

- The nominal value of the investment for Toi Mai has fallen by 37% and totaled \$90m in 2022. The total sub-degree investment was around \$950m.
- As a proportion, investment in Toi Mai related qualifications has dropped from circa 17% to 10% between 2011 and 2022.
- Investment in creative qualifications is down by over one quarter, to \$36m in 2022 (\$56m in 2011).
 - Wider creative investment (for example, including written and verbal comms qualifications) decreased by around one-third to \$51m in 2022.
- Investment in Toi Māori around \$7m, approximately 40% less than in 2011.
- technology (\$35m), sport, recreation and GLAMIR (Galleries, Libraries, Archives, Museums, Iwi Records) (\$19m) investment dropped circa 40% below its 2011 value.

Adjusted for inflation, overall TEC investment in all sub-degree qualifications is 10% less than 2011

- In comparison to the noted reductions above, construction-related investment increased by 220%, accounting for nearly 20% of total L2-6 provision.

Key findings – L7+ (non-deg) Investment: 2011 vs 2022

Investment by TEC in degree-level qualifications for industries relevant to Toi Mai in 2022 decreased by about one-fifth in value, whilst overall investment grew by 4% (after inflation adjustment)

- Value of investment for L7+ totaled over \$1.6bn in 2022, with Toi Mai coverage being around \$105m.
- Related to Toi Mai industries between 2011 and 2022:
 - Creative qualification investment dropped 12%, a far slower rate compared to (non-deg) (36%).
 - Tech qualification investment has increased by \$15m, to \$28.4m.
 - Sport, recreation & GLAMIR (Galleries, Libraries, Archives, Museums, Iwi Records) investment has fallen by one-quarter, totaling \$20m.
- Wider creative investment decreased by 4%, compared to the 33% decline for L2-7 (non-deg)
- It is unclear how investment has changed for Toi Māori due to the categorisation of relevant qualifications within NZSCED and insufficient data availability.

Toi Pāho – screen related qualifications

- For Toi Pāho screen-specific qualifications between 2018 and 2022, we estimated that degree-level investment is 2.3 times greater than compared to sub-degree level qualification investment.

Key findings – L2–L7 (non-deg): Value of investment

2011 vs 2022 comparison of investment value by NZSCED grouping

Once adjusted for inflation:

- Total L2-L7 (non-deg) investment declined by 11% between 2011-2022.
- To have kept pace with inflation, an investment of \$105m would be required.
- For Toi Mai relevant coverage, the provision has halved
 - Creative investment decreased 41%, whilst Sport & Rec, and Tech
- Toi Māori qualifications have halved
- In comparison, Construction in 2022 grew by over 150%

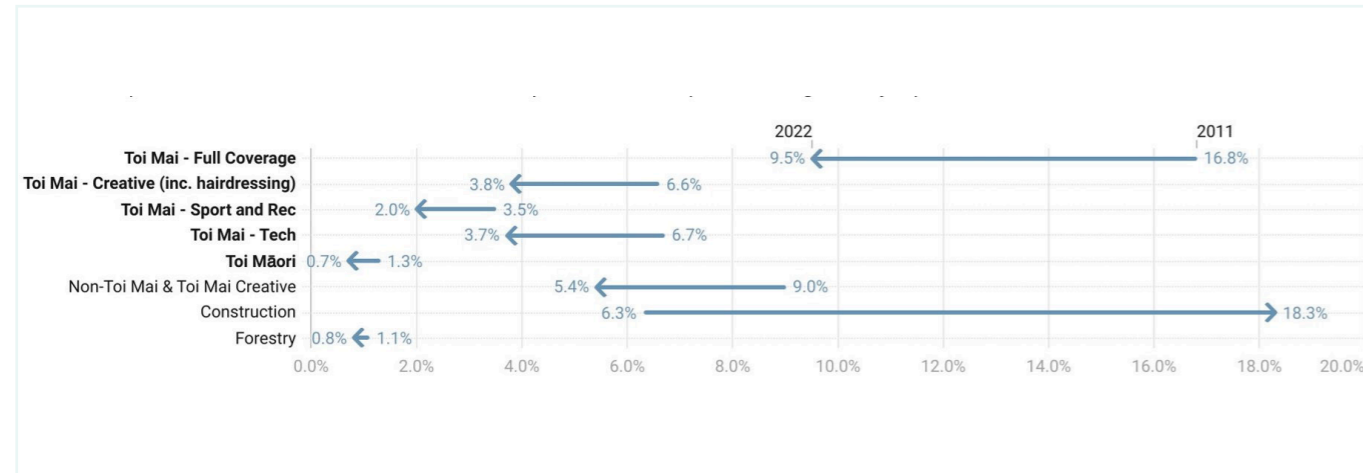
NZSCED Grouping	2011	2022	Nominal % change	Inflation adjusted % change
Toi Mai – Full Coverage	\$144.0m	\$90.2m	-37%	-48%
Toi Mai – Creative (inc. hairdressing)	\$56.6m	\$36.3m	-36%	-41%
Toi Mai – Sport and Rec	\$30.1m	\$18.9m	-37%	-50%
Toi Mai – Technology	\$57.0m	\$35.0m	-39%	-48%
Toi Māori	\$11.5m	\$6.9m	-40%	-52%
Non-Toi Mai & Toi Mai Creative	\$76.9m	\$51.4m	-33%	-46%
Construction	\$54.0m	\$172.9m	220%	158%
Forestry	\$9.3m	\$7.6m	-18%	-34%

* Note: figures are in nominal terms unless stated.

Key findings – L2-7 (non-deg): Proportion of investment

2011 vs 2022 comparison of investment proportion by NZSCED grouping

- In 2022, Toi Mai-related qualifications totaled 9.5% as a proportion of investment – down from 16.8% in 2011.
- All areas (Creative, Tech, Sport & Rec, Toi Māori) have significantly dropped
- In comparison, construction in 2022 accounts for nearly one-fifth of total provision, a significant jump from 6.3% in 2011.



* How to interpret: The arrows indicate how the proportion of total investment has changed for the NZSCED area. The arrowhead represents 2022, and the direction shows whether the proportion has increased or decreased since 2011.

Creative investment – L2-6 vs L7+

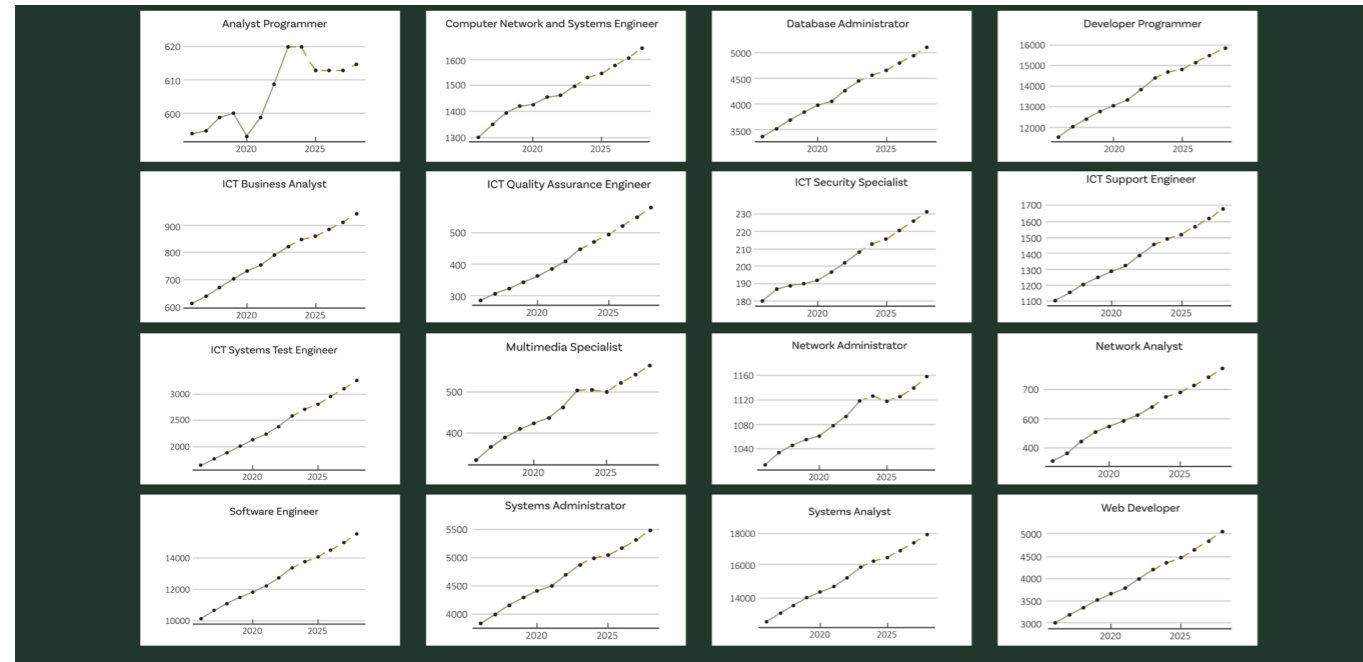
2011 vs 2022 comparison of provision value by Creative NZSCED grouping

NZSCED Grouping	L2-6: 2022 - Difference vs 2011	L7+: 2022 - Difference vs 2011
Audio Visual Studies	-\$3.21	\$3.82m
Comms and Media Studies not elsewhere classified	\$0.98m	\$1.74m
Crafts	-\$0.12m	-
Creative Arts not elsewhere classified	\$6.36m	\$2.64m
Dance	-\$0.02	\$0.34m
Drama and Theatre Studies	-\$0.14m	-\$0.13m
Fashion Design	-\$1.80m	\$0.23m
Fine Arts	-\$5.59m	\$2.53m
Floristry	\$0.87m	-
Graphic Arts & Design Studies	\$0.66m	-\$7.50m
Graphic Arts & Design Studies not elsewhere classified	\$0.71m	\$1.92m
Jewellery Making	-\$0.43m	\$0.36m
Journalism, Communication and Media Studies	-\$1.53m	-\$1.91m
Mana Whakairo (Māori Carving)	-\$8.55	-
Māori Performing Arts	-\$2.93	-\$3.80
Music	-\$4.49m	-\$0.09m
Ngā mahi a te Whare Pora (Māori Weaving)	-\$0.14m	-
Performing Arts not elsewhere classified	\$0.18m	-\$0.71m
Photography	-\$1.42	-
Textile Arts	-\$1.17m	-
Verbal Communications	-\$0.06m	-
Visual Arts and Crafts not elsewhere classified	-\$0.20m	-\$3.99m
Written Communication	-\$0.71m	\$0.20m
Difference in provision vs 2011	-\$21.76m	-\$4.36m

Annex 2. Toi Whānui (Enabling Digital Technologies) – Infometrics' industry growth projections across the key occupations.

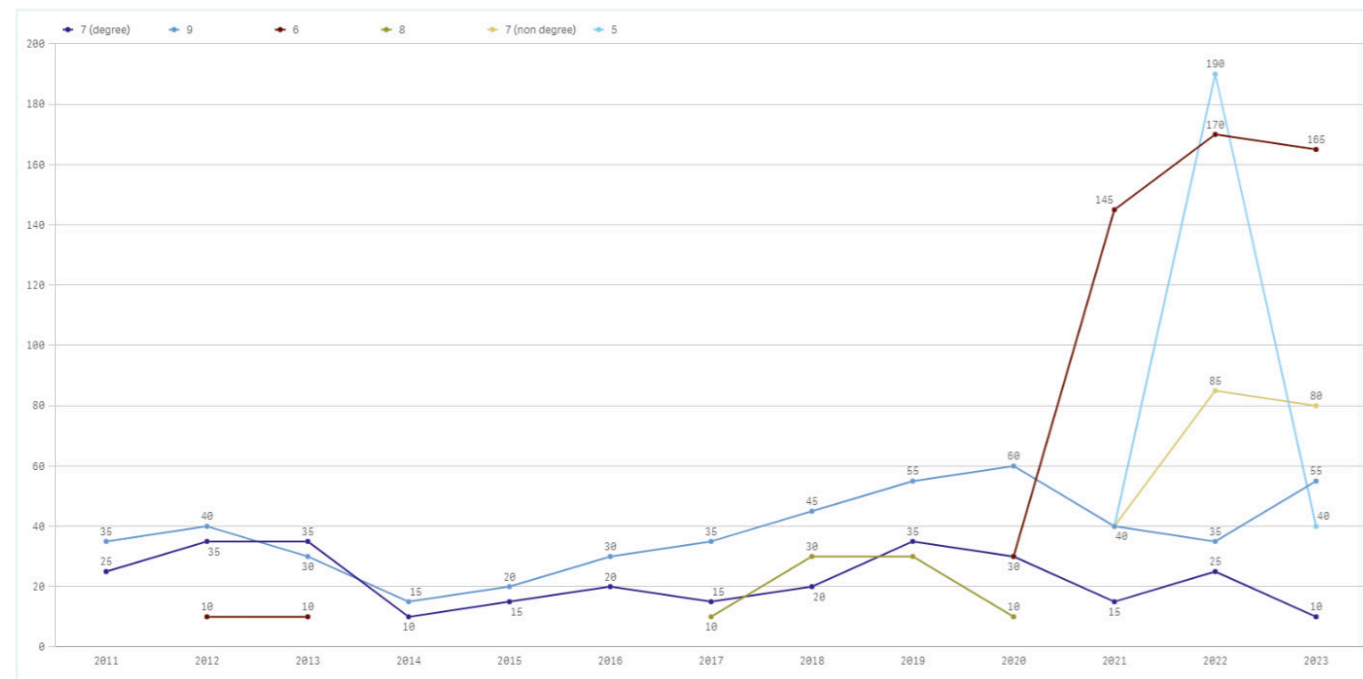
Workforce size by occupation (2016–2028)

2023–2028 were for-casted.



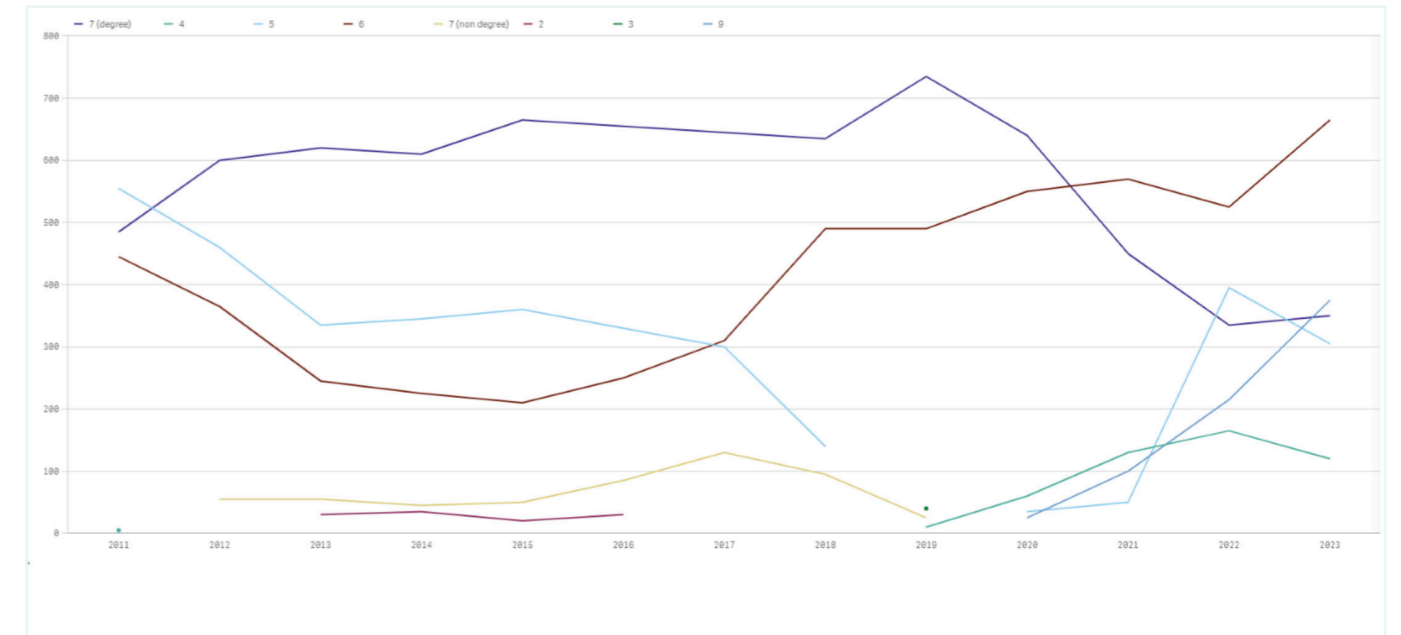
* Data source: Infometrics

Number of learners by NZQF level



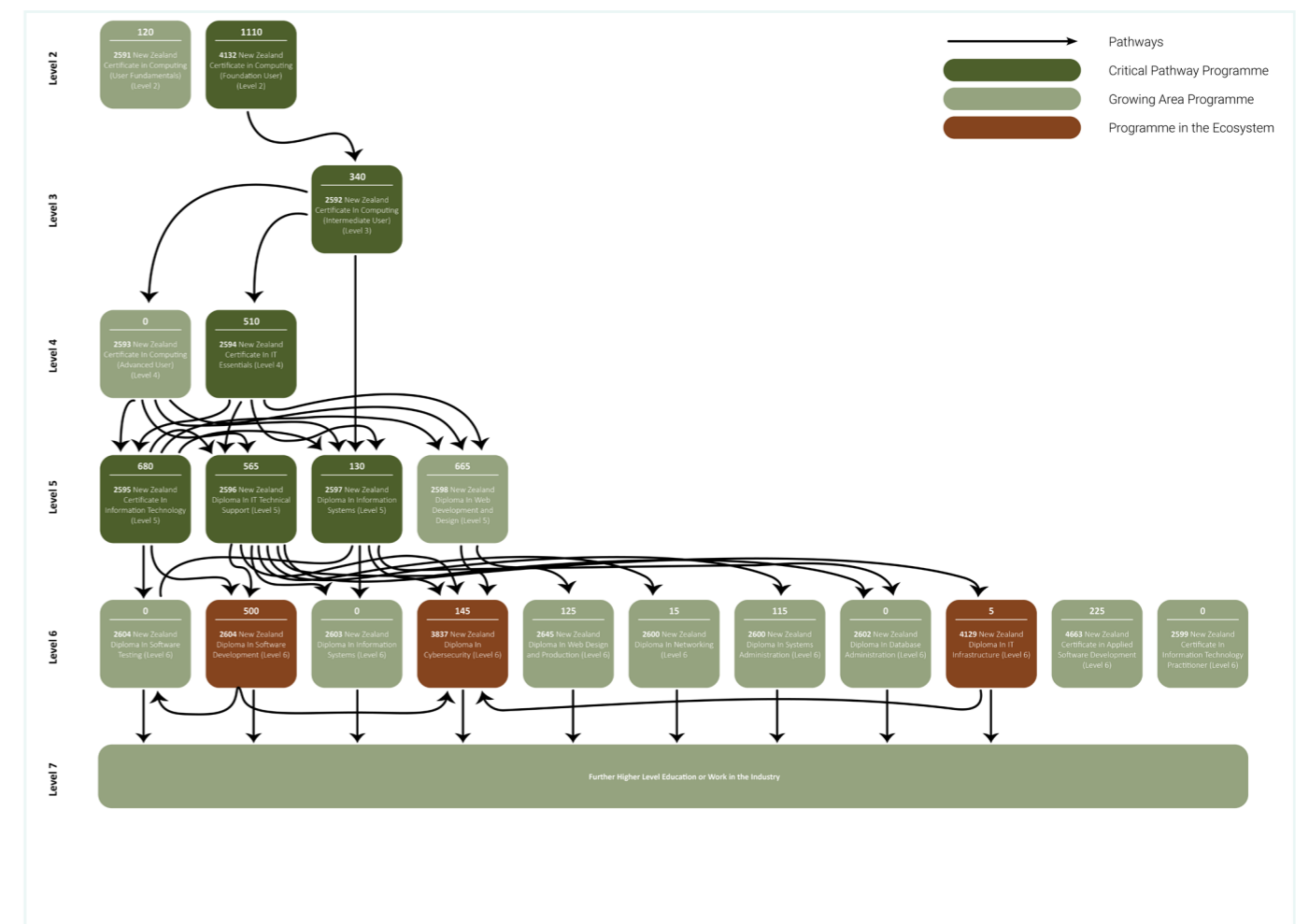
Cybersecurity, there was a significant increase in enrollment due to the Targeted Trades Apprenticeship Fund (TTAF) at the same time as level 6 provision was introduced. Students took advantage of this to study at level 5 and move on to the Diploma. However, this provision has reached a capacity and is geographically confined (Auckland, Manawatū, Canterbury). Above is a graph showing enrollment in security science related programmes. Level 6 (red) indicates the Diploma in Cybersecurity.

Number of learners by NZQF level



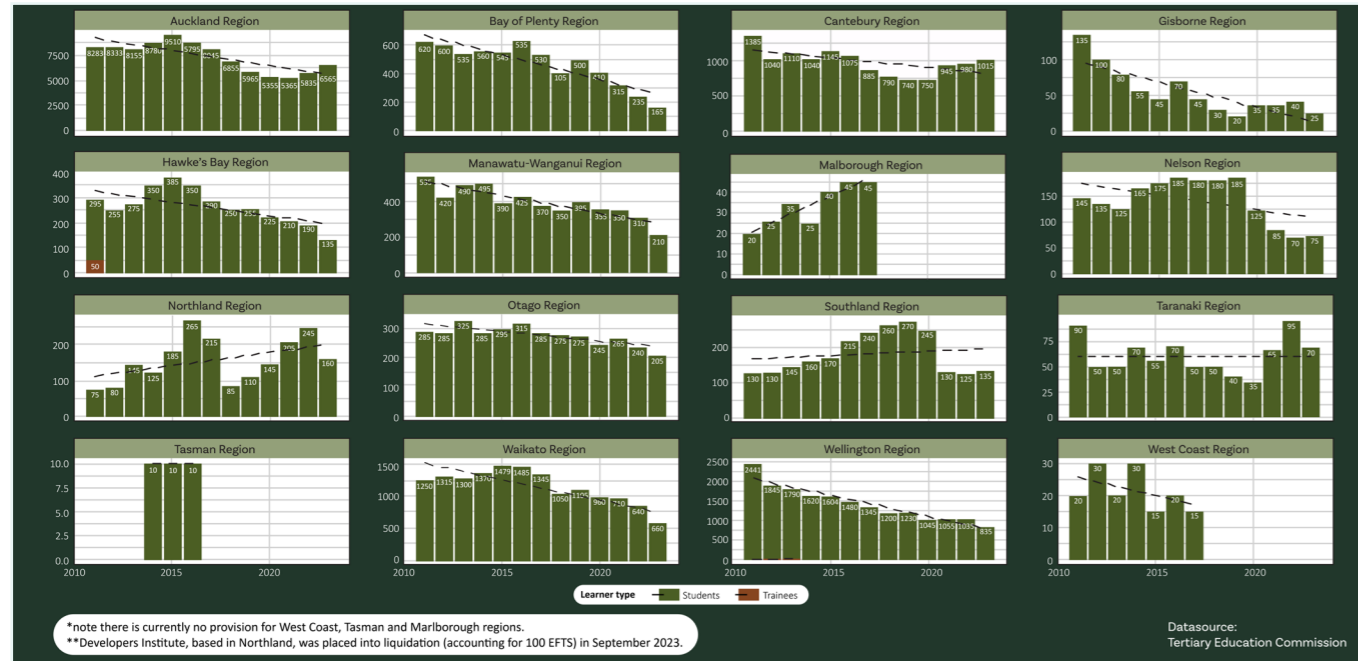
For software development (Computer Applications and Programming), the red line below indicates increases in level 6 software development programmes. In 2021, the introduction of TTAF increased enrolments in Level 4 and Level 5, with many students pathwaying into level 6 software development in 2022. Data source: Infometrics.

Toi Whānui programmes pathway



Annex 2. Enrollment in Digital Technology courses per RSLG region* (all levels)

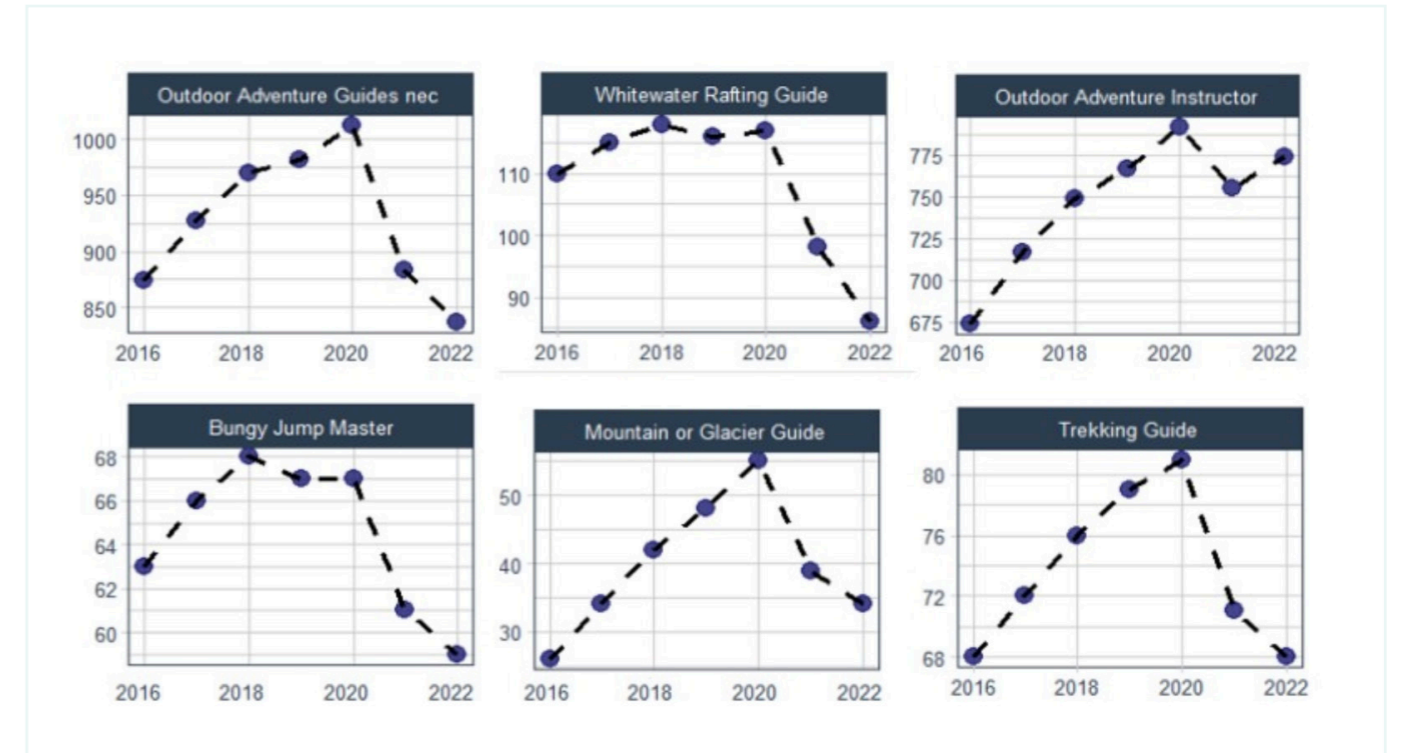
Total enrollment to information technology provision by student type and year 16 New Zealand regions



*Note: there is currently no provision for West Coast, Tasman and Marlborough regions.
 **Developers Institute, based in Northland, was placed into liquidation (accounting for 100 EFTS) in September 2023.

Annex 4. Outdoor recreation employment decline 2016–2022

Outdoor recreation employment decline 2016-2022



Annex 5. WeCreate data summary

WeCreate PDF data summary

Who are WeCreate?

WeCreate is the alliance of Aotearoa's creative industry associations and organisations (now representing 30,000+ Kiwi creators and creative businesses), which was founded in 2014 to propel growth in our creative ecosystem, and increase its contribution to New Zealand's economy.

New Zealand's creative sector is an untapped opportunity for productivity and economic growth

Our creative sector could be worth \$25bn to New Zealand by 2023 – if the next government appoints a Minister for the Creative and Cultural Economy to lead a joined-up government approach; building on the [Action Plan](#) the sector has already developed.

A high-ranking Cabinet Minister leading a joined-up multi-agency approach to facilitate growth in our creative economy would better enable:

- Growth in the digital age through creativity, innovation and productivity.
- Diversification of New Zealand's economic outputs, and less market concentration.
- Transition to a Zero Carbon economy.
- Fit-for-purpose data and insights – especially in relation to digital products and services, and exports – keeping pace with the rapidly changing nature of the sector, and to provide robust evidence for decision-making.
- Regulation that supports economic growth – including finalising the Review of the Copyright Act and addressing the impacts of Artificial Intelligence – enabling our creators and creative businesses to earn income from their work.
- A new approach to R&D incentives to support creative business growth.
- Trade settings, strategies and actions optimising creative export earnings potential – globally, weightlessly, and mostly tariff-free.
- Digital creative export revenue being accurately accounted for.
- New Zealand building high-level trading relationships with the multi-national platforms who control the global digital economy.
- Greater opportunities for high-wage work for women, Māori, and Pasifika – and small business and regional development.
- Sustaining a vibrant and diverse arts sector – here creative talent is developed and nurtured.
- Creative and arts educations in schools being enhanced and expanded; to improve educational outcomes, and to develop the pathways that our young people will need to find meaningful and well-paid work in our future economy.
- Vocational and tertiary education and employment policy meeting the needs of our future creative sector workforce. The Toi Mai (Creative, Cultural, Recreation and Technology) WDC, which WeCreate was instrumental in establishing, is providing invaluable insights and structures needed for sustainable careers. As the only government agency where creative and tech are in one place, Toi Mai is a useful reference point for policy development.
- Our Māori and Pasifika creative economies being supported and understood, to enable them to grow. Māori culture and stories are key assets of many of our most successful creative outputs, and of the wider 'Brand NZ' internationally.
- Enhancement of our cultural pride, identity, inclusion, and access and participation in creative and cultural pursuits.

* The Ministry for Culture & Heritage/Manatū Taonga is the government agency for the cultural sector, but the economic growth requirements of our creative sector go well beyond MCH's current scope.

WeCreate's work with government so far

Since 2017 WeCreate has regularly brought together officials from MBIE, MFAT, NZTE, MCH, MoE, the Toi Mai WDC, StatsNZ, and Treasury to share information about their policy work which impacts the creative sector – and often providing their only opportunity to connect directly with the sector, and with each other, on these matters.

WeCreate's recent engagement across government evidences the need for government to be better connected within itself, and with the sector – to optimise opportunities and overcome challenges in becoming the advanced economy we aspire to be:

- Working closely with MBIE, NZTE and NZ Tech to ensure the representation of the NZ digital creative sub-sector in the Digital Strategy for Aotearoa, Digital Technologies Industry Transformation Plan, and the NZ Tech & Innovation Story.
- Providing industry advice and connections to MFAT regarding current and forthcoming trade negotiations, the Trade for All strategy, and the development of policy for creative exports and digital trade. WeCreate have recently facilitated industry engagement with MFAT's Digital Trade Review, focusing on New Zealand's international digital trade policy setting.
- Facilitating a multi-agency Data & Insights Group (including MBIE, MCH, NZTE and StatsNZ) to develop a more accurate measurement model for the sector.
- Co-ordinating a sector-level response to the Review of the Copyright Act.
- Providing industry advice and connections to the Productivity Commission in respect of its 'Frontier Firms' and 'Improving Economic Resilience' inquiries.
- Advising the Toi Mai (Creative, Cultural, Recreation and Technology) WDC, and liaising between Toi Mai and WeCreate's membership on workforce needs.
- Consulting on and submitting on behalf of the sector to:
 - MBIE Long Term Insights Briefing – 'The Future of Business'
 - MCH Long Term Insights Briefing
 - StatsNZ Long Term Insights Briefing
 - Aotearoa NZ Public Media Bill
 - Data and Statistics Bill
 - Draft Emissions Reduction Plan
 - MCH Artist Resale Royalty Scheme

What are our international trading partners and competitors doing to support their creative economies?

UK Creative industries sector vision:

- Creative sector grew 1.5 times faster than the rate of the wider economy in the past decade, since their industry-government partnership was launched.
- Increased creative sector's contribution to GVA by 60.5% in 8 years – currently 108bn Euros.
- Aim to grow their creative industries by an extra jobs by 2030.

Australia 'Revive - National Cultural Policy 2023:'

- 'Whole-of-government' approach to:
 - expand economic opportunities
 - deliver better futures for creative works and organisations
 - provide more avenues to deepen and showcase national identity
- Guided by industry – Australia want, but do not have yet, a creative sector alliance with WeCreate for government to work with.

The New Zealand creative sector is generating \$15b in GDP (that's bigger than agriculture)

- Value: \$14.9b GPD March 2022, 4.17% of New Zealand total.
 - Growth: 10% 12 month growth, 5.3% rest of economy.
 - Jobs: 115,114 total employment, 4.3% of New Zealand total.
 - Enterprise: 35,955 Business units, 5.7% all New Zealand businesses.
- * (2023) Infometrics Arts & Creative Sector profile for Manatū Taonga/Ministry for Culture & Heritage as at March 2022. StatsNZ Production Measure, year ended March 2021.

Contribution to GDP/ directly employed by industry data

- Design: \$10b/ 94,200 (PwC/DesignCo 2017).
- Advertising: \$6b/ 12,000 (Deloitte 2017).
- Screen: \$4b/ 13,000 (Olsberg SPI for NZ Film Commission 2022).
- Fashion: \$759m/ 9,251 (Infometrics 2021).
- Music: \$720m/ 2,250 (PwC 2022).
- Games: \$407m/ 1,000, 4.7% growth (NZ game Developers Association 2022).
- Books: \$292m/ 557 (Publishers Association NZ 2022).

In 2016 WeCreate commissioned NZIER to profile the NZ creative sector in 'The Evolution of Kiwi Innovation' which reported 131,220 jobs, 6.6% of New Zealand's workforce.

- 44,484 Support people in Creative industries.
- 39,438 Creative people in Creative industries.
- 47,289 Creative people in Non-Creative industries.

* Conventional measures of occupations & industries (2013 Census).

As with other sectors that are highly digital, government data does not accurately reflect the full value, nor the current occupations and industries, that makes up the creative sector. Government has not measured the sector as it is defined by UNCTAD, and by many other advanced economies.

* All above information from WeCreate.org.nz's PDF, [here](#).



WeCreate is ready to talk with you about how we might work together to improve New Zealand's productivity and economic growth – and we have a plan for how to do it.

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Our Action Plan and further information about WeCreate can be found at: www.wecreate.org.nz

