

# SCREEN INDUSTRY – SNAPSHOT

**Note:** The following data shows the screen industries that Toi Mai represents

## VALUE OF THE SCREEN INDUSTRY

# \$2.98bn

economic contribution or **0.84%** of NZ's GDP in 2022

## GROWTH OF THE SCREEN INDUSTRY

# 8.0%

VS

# 3.2%

Screen

VS

General Economy  
Average GDP growth, 2015–2022

## GDP PER FTE

# \$188k

NZ average  
**\$149k**

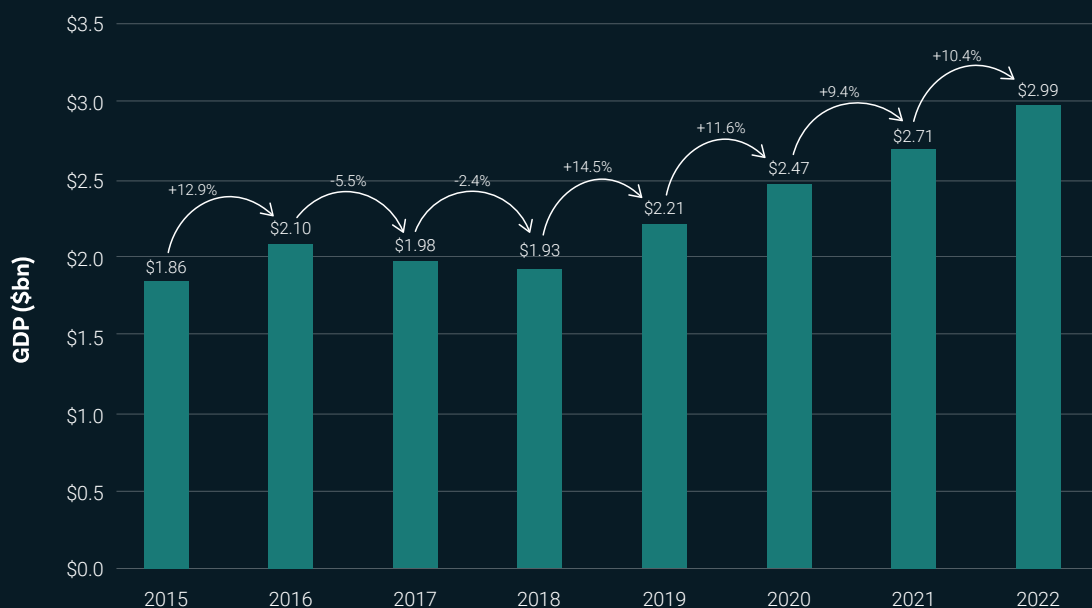
## TERTIARY EDUCATION INVESTMENT

Between 2018–2022, degree-level investment for screen-related qualifications was

# 2.9x more

than vocational education

### Screen GDP Contribution



#### Industries covered:

- Motion Picture and Video Production
- Motion Picture Exhibition
- Motion Picture and Video Distribution
- Post-production Services and Other Motion Picture

#### Data sources:

- Infometrics Toi Pāho – Broadcast and Screen Sector Profile 2022
- Te Mata Raraunga, Workforce Skills Data and Insights, 2023
- Ngā Kete, 2023

# SCREEN INDUSTRY – SNAPSHOT

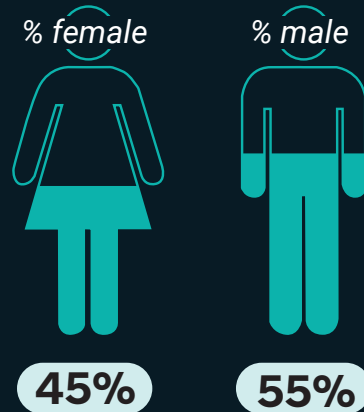
**Note:** The following data shows the screen industries that Toi Mai represents

## WORKFORCE SIZE IN 2022



Number of individuals

## GENDER BREAKDOWN



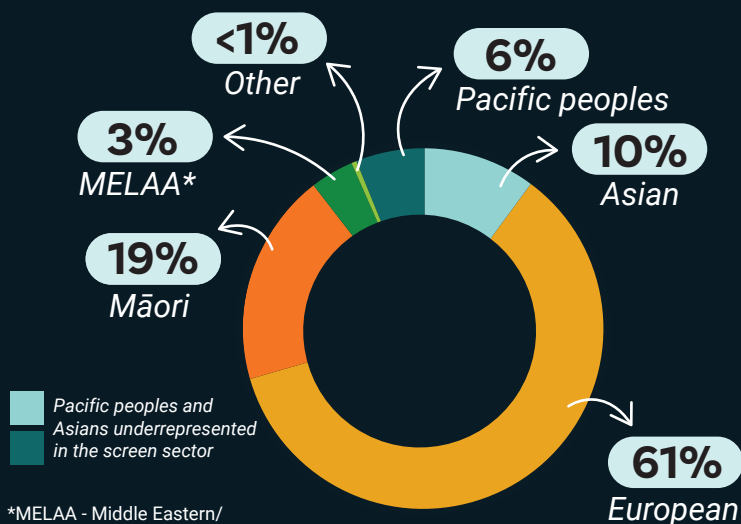
\*No data on gender diversity is available

## 1 YEAR RETENTION

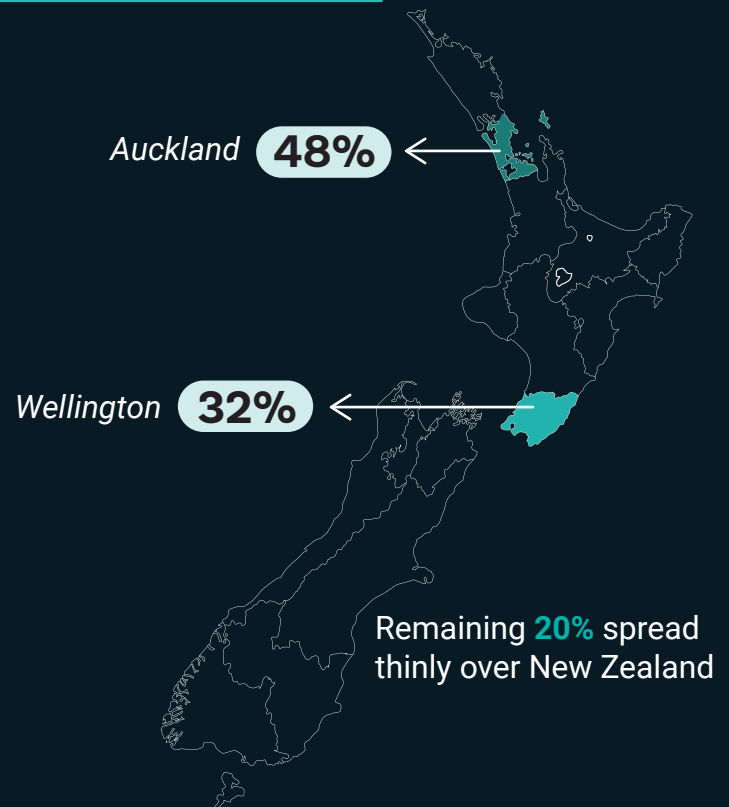


Low retention of new entrants. Of those who joined the screen industry in 2015, **50%** had left after 1 year

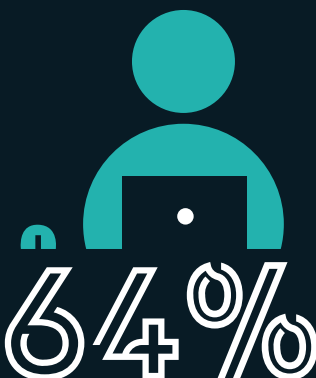
## ETHNICITY BREAKDOWN



## BUSINESSES BY REGION

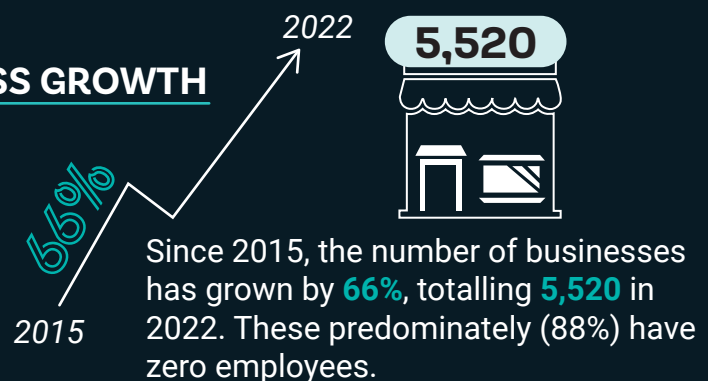


## SELF-EMPLOYMENT



Self-employment rate (**64%**) is around 4 times the national average

## BUSINESS GROWTH



### Data sources:

- Infometrics Toi Pāho – Broadcast and Screen Sector Profile 2022
- Te Mata Raraunga, Workforce Skills Data and Insights, 2023
- Ngā Kete, 2023

# The screen industry makes a significant contribution to the economy

## 1 SCREEN IS A FAST-GROWING INDUSTRY IN NEW ZEALAND

2020

**\$10bn**

Total related output from screen production expenditure between 2015–2020 was around **\$10bn**.<sup>1</sup>

2015

2020

**20%**

Production expenditure from the industry over the same period grew circa **20%** p.a.<sup>2</sup>

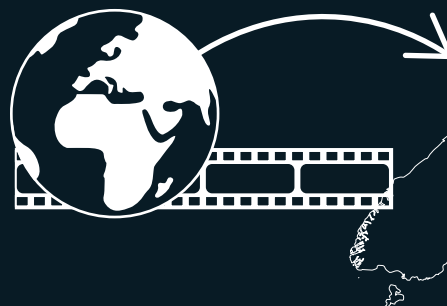
2015

## 2 HIGHLY PRODUCTIVE INDUSTRY WITH WIDER BENEFITS

**6%** of tourism earnings  
≡ **\$198m**

Increased exposure of New Zealand culture to overseas audiences boosts tourism earnings. Research showed that six percent of tourists cited Lord of the Rings as one of the major reasons for visiting New Zealand (with **6% = \$198m**).<sup>3</sup>

## 3 RELIES HEAVILY ON INTERNATIONAL PRODUCTIONS



The screen production rebate supports to develop and attract productions to New Zealand. Ensuring both domestic and international productions continue to work concurrently is essential in supporting the growth and development of the workforce.



Screen activity reflects the international competition for attracting major overseas projects

**90%**



of screen production expenditure is derived from international productions.<sup>4</sup>

<sup>1</sup> Olsberg SPI, 2022

<sup>2</sup> Olsberg SPI, 2022

<sup>3</sup> Pinchefskey, 2012

<sup>4</sup> Olsberg SPI, 2022

# Our workforce development plan for below-the-line roles highlights several opportunities to improve productivity

## 1 IMPROVE AND ENABLE CAREER PROGRESSION

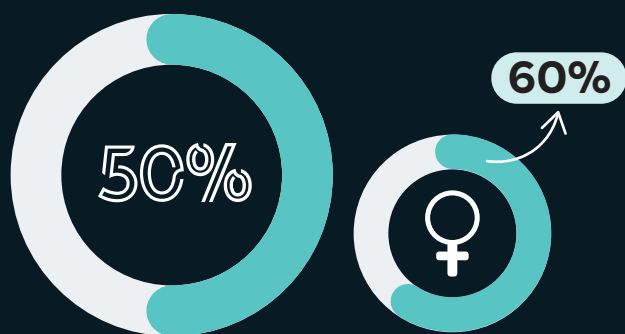
To progress careers both domestically and internationally, consistent and relevant professional development opportunities are needed.



## 3 MAKE ROLES AND PATHWAYS MORE VISIBLE AND ACCESSIBLE

People have little or no knowledge about the career pathways available for entry to many below-the-line roles.

The potential of screen careers are not well understood.<sup>5</sup>



50% of individual screen workers (60% women) rely on unpaid work as a means of accessing or progressing a career in screen.<sup>6</sup>

## 2 BETTER ALIGN TRAINING WITH INDUSTRY SKILL NEEDS

There is a need for training that is industry-led and enabled (work-based and short courses) to work with the parameters of a gig-based industry.<sup>7</sup> Toi Mai is supporting the industry in forecasting training needs through improved data collection and analysis.



The main barriers to undertaking training relate to lack of money/funding, lack of suitable training, unpredictability of employment, and lack of time.<sup>8</sup>



## 4 SUPPORT FOR CONTENT PRODUCERS FROM UNDERSERVED COMMUNITIES\*

\*Underserved communities refers to (but is not limited to) Māori, Pacific peoples, Asian, migrant communities, LGBTQIA+, women, tāngata whaikaha, and neurodiverse people



The NZ screen industry has a global reputation for its content production, based on both our unique storytellers and the technical excellence of the crew. There are opportunities for underserved communities including Māori and Pacific to contribute to and benefit from a variety of careers in screen.



<sup>5</sup> Te Wao Nui o Toi, 2023

<sup>6</sup> Screen Workforce Survey, 2022

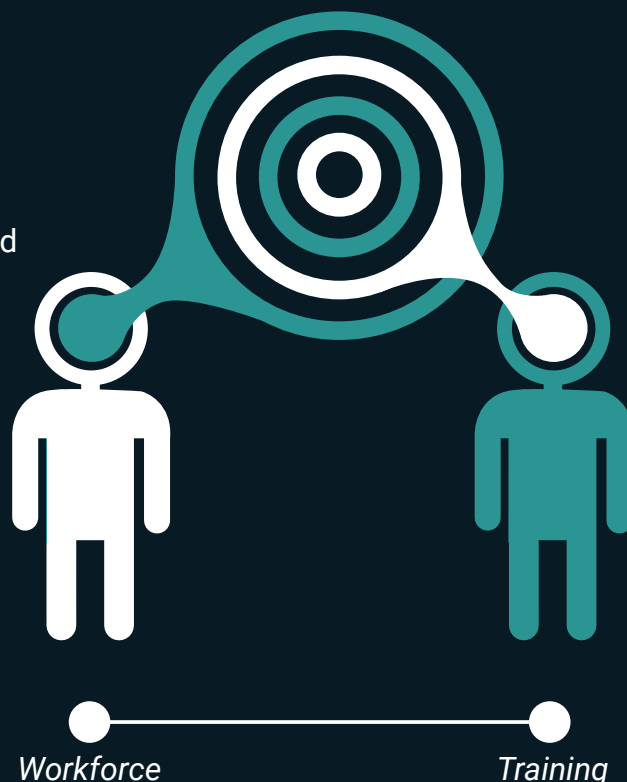
<sup>7</sup> Te Wao Nui o Toi, 2023

<sup>8</sup> Screen Workforce Survey, 2022

# Improved industry co-ordination on upcoming productions and the required skills would accelerate the industry and bring significant benefits to the economy

## 1 ALIGN INDUSTRY WORKFORCE AND TRAINING NEEDS

With improved industry coordination there can be better alignment between workforce and training to meet industry skill needs. Like many parts of the creative industries, the screen industry has never had an industry training organisation to coordinate its vocational training and workforce needs.



## 2 ENABLE SUSTAINED DOMESTIC AND INTERNATIONAL GROWTH

Improved coordination, including funding for training, would sustain international and domestic growth in a globally competitive market that reflects the diversity of Aotearoa.



# CREATIVE ARTS INDUSTRIES – SNAPSHOT

## VALUE OF THE INDUSTRIES

**Note:** The following data shows the creative arts industries that Toi Mai represents

# \$2.7bn

economic contribution or **0.80%** of NZ's GDP in 2022

## GROWTH OF THE INDUSTRIES

# 3.4%

VS

# 2.9%

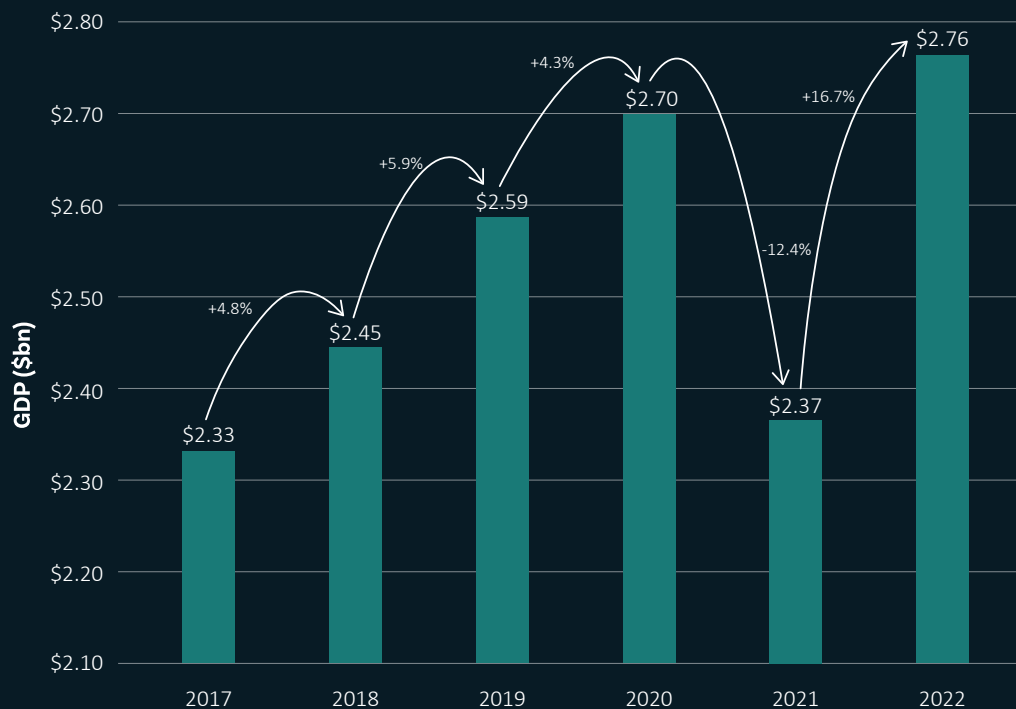
Creative Arts

VS

General Economy

Average GDP growth, 2017–2022

### Creative Arts Industries GDP Contribution



#### Industries covered:

- Book Publishing
- Music Publishing
- Music and Other Sound Recording Activities
- Performing Arts Operation
- Creative Artists, Musicians, Writers and Performers
- Performing Arts Venue Operation

#### Data sources:

- Infometrics Arts Sector Profile, 2022
- Te Mata Raraunga, Workforce Skills Data and Insights, 2023
- Creative New Zealand, Profile of Creative Professionals, 2023

# CREATIVE ARTS INDUSTRIES – SNAPSHOT

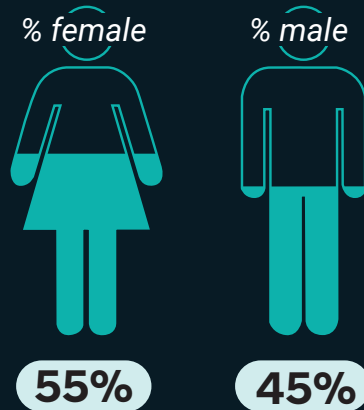
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## WORKFORCE SIZE IN 2022



Number of individuals

## GENDER BREAKDOWN



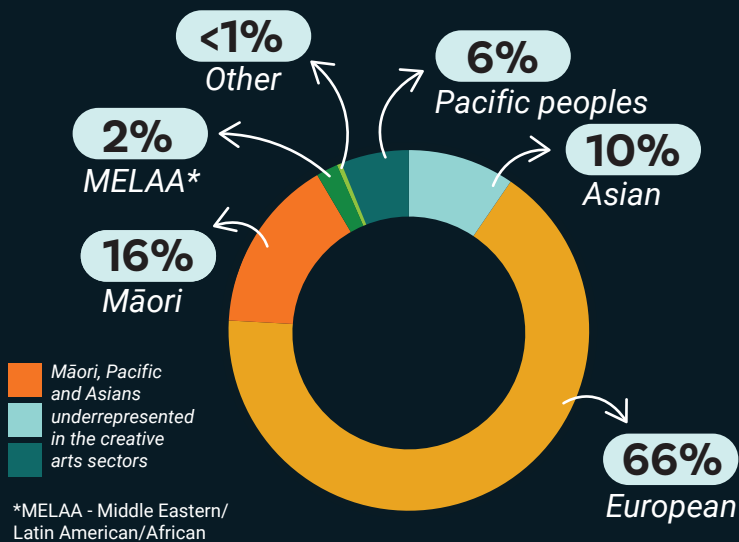
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## GIG ECONOMY

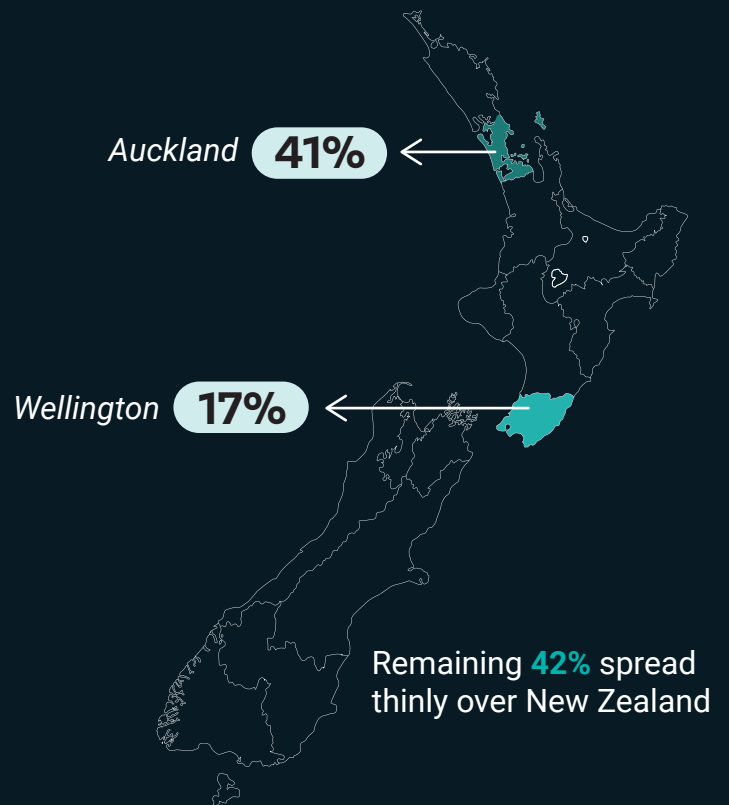


44% of creative professionals undertake paid work outside the creative industry

## ETHNICITY BREAKDOWN



## BUSINESSES BY REGION



## SELF-EMPLOYMENT



Self-employment rate (65%) is around 4 times the national average

### Data sources:

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- Te Mata Raraunga, Workforce Skills Data and Insights, 2023
- Creative New Zealand, Profile of Creative Professionals, 2023



# High self-employment puts pressure on career sustainability

1

## DUPLICATION OF EFFORT FOR SELF-EMPLOYED



A significant amount of effort across the creative arts industries is spent learning how to run their own businesses, with vast duplication of effort.

Only one-third of creative professionals believe there are enough training and development opportunities in New Zealand, with business skills, such as marketing and business management key areas for development.<sup>9</sup>



2

## DEVELOPING BUSINESS SUPPORT AND SKILLS



Some tools are starting to reduce the administrative burden for creative professionals.



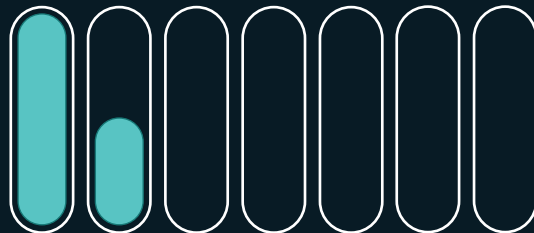
New apps including Hnry provide some support. Toi Mai has developed a Business Skills for Creatives Micro-credential to support the needs of creative businesses.



3

## MAJORITY OF ARTISTS HAVE LOWER THAN NZ MEDIAN INCOME

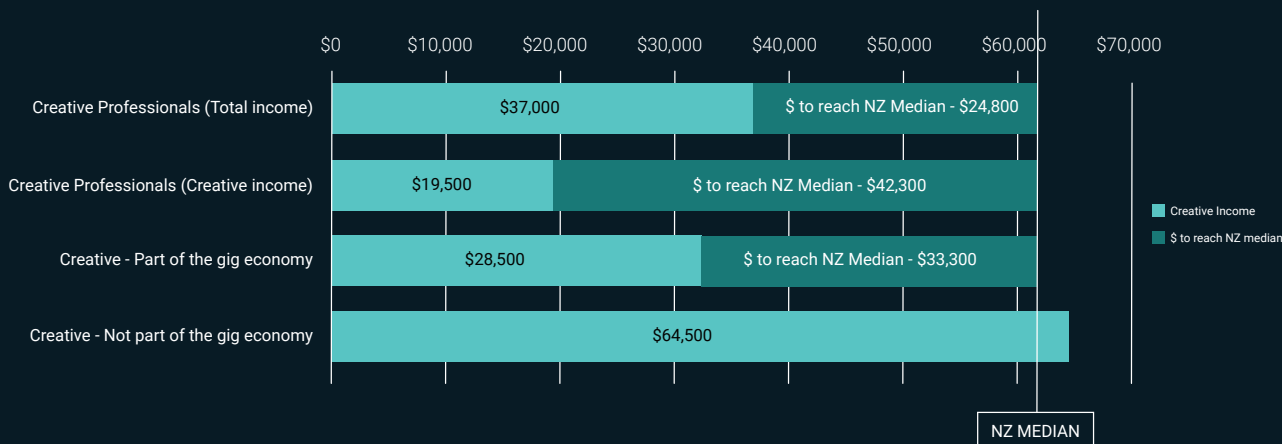
Our research using Statistics New Zealand's centralised database (IDI) finds that only **15%** of the workforce in performing arts industries earned more than **\$30,000** in 2022.<sup>10</sup>



**15%**

earned more than  
**\$30,000**  
in 2022

### Income to reach NZ median - Creatives<sup>11</sup>



<sup>9</sup> Creative New Zealand, 2023

<sup>10</sup> IDI, 2023

<sup>11</sup> Creative New Zealand, 2023



# Uncertain and inconsistent funding adds further pressure to sustain careers

1

## NUMBER OF FUNDING ORGANISATIONS



The number of arts funders creates confusion and duplication for applicants.

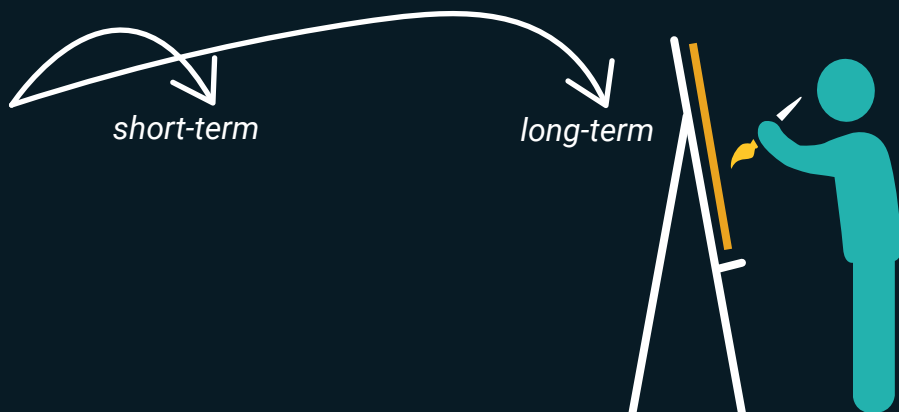


Grant-writing skills are essential for the application process. Feedback from artists found language used in the grant applications is too academic – acting as a barrier for many New Zealanders.<sup>13</sup>

2

## PROJECT-BASED FUNDING

Heavy reliance on short-term, project-based funding which makes it hard for organisations to build and maintain long-term arts infrastructure, and for practitioners to develop their careers, audiences and work. These barriers then impact content quality and production.



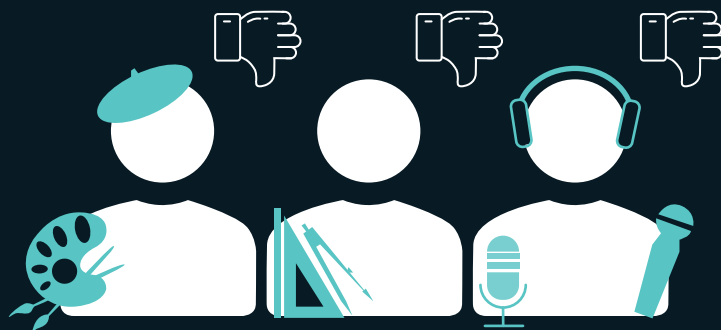
3

## CHASING FUNDING



Creative artists and organisations spend significant time chasing funding, which limits the time to create and develop new work.

Difficulties in getting funding is a key reason why there was dissatisfaction with careers for creative professionals.<sup>12</sup>



Funding for the arts can come from a variety of sources but is not limited to:

**Creative New Zealand, local and regional councils, Ministry for Social Development, embassies, crowdfunding, philanthropy, and gaming trusts.**<sup>14</sup>

<sup>12</sup> Creative New Zealand, 2023

<sup>13</sup> Creative New Zealand, 2023

<sup>14</sup> Arts Access, 2023

# Investing in creative arts infrastructure would boost industry productivity and sustainability

1

## INCREASE FUNDING CERTAINTY



More certain funding to enable and embed business support, which can allow practitioners and organisations to plan long-term, budget, and develop professionally.

2

## STREAMLINE PROCESSES

Artists and organisations want streamlined funding processes to improve transparency and application – which will improve ease of applying for arts funding.



Research highlights current processes being complex and non-accessible, with the design of applications often not designed from the artists perspective.<sup>15</sup> Given the number of organisations that fund arts, this is an issue.

25<sup>th</sup> out of 35 in the OECD 2020<sup>16</sup>

Government expenditure towards 'recreation, culture and religion' as a percentage of GDP (2020), is lower than other small, advanced economies.

Arts, culture and heritage funding steadily declined between 2007 and 2020.



There is a need for a tool to navigate the funding process.

3

## IMPROVE AUDIENCE AND ARTISTS ACCESSIBILITY

Integrating accessibility in the design of projects would create richer, more diverse and inclusive work. Aspects to improve accessibility include physical accessibility, audio descriptors, and accommodating for a range of disabilities that want to engage with the arts.



<sup>15</sup> Creative New Zealand, 2023

<sup>16</sup> Sohanpal, 2023

## OPPORTUNITIES TO BOOST SCREEN SECTOR PRODUCTIVITY

For a productive screen sector to meet its economic potential, improved industry co-ordination with government support for skills training and sustainable careers is required.

1.

### The screen sector makes a significant contribution to the economy

- Screen is a fast-growing sector in New Zealand
- It is a highly productive sector with wider economic benefits
- It relies heavily on international productions

2.

### Our workforce development plan for below-the-line roles highlights several opportunities to improve productivity

- Improve and enable career progression
- Better align training with industry needs
- Make roles and pathways more visible and accessible
- Support content producers from underserved communities

3.

### Improved industry co-ordination on upcoming productions and the required skills would accelerate the sector and bring significant benefits to the economy

- Align industry workforce and training needs
- Enable sustained domestic and international growth

## OPPORTUNITIES TO BOOST CREATIVE ARTS PRODUCTIVITY

For a productive creative arts sector to meet its potential, investment in arts infrastructure and an optimised (or simplified) funding scheme is required.

1.

### High self-employment puts pressure on career sustainability

- Duplication of effort for self-employed
- Need to develop business support and skills
- Majority of artists have lower than median income

2.

### Uncertain and inconsistent funding adds further pressure to sustain careers

- Number of funding organisations
- Project-based funding
- Constantly chasing funding

3.

### Investing in creative arts infrastructure would boost sector productivity and sustainability

- Increasing funding certainty
- Streamlining processes
- Improving audience and artists accessibility

## Vocational Education and Training Provision

The provision investment value for vocational education in creative subjects has significantly fallen between 2011 and 2022. The value has dropped **by 41% to \$36.3m** when adjusted for inflation. At the same time, degree-level investment in these areas has fallen approximately 10%.

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## FULL REFERENCE LIST

Arts Access. (2023) Funding information, Arts Access Aotearoa. Available at: <https://artsaccess.org.nz/funding-information#:~:text=The%20Arts%20Foundation%20has%20three,and%20culture%20more%20than%20ever.>

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Pinchefskey, C. (2012) The impact (economic and otherwise) of lord of the rings/the Hobbit on New Zealand, Forbes. Available at: <https://www.forbes.com/sites/carolpinchefskey/2012/12/14/the-impact-economic-and-otherwise-of-lord-of-the-ringsthe-hobbit-on-new-zealand/?sh=33cb3e8431b6>

Sohanpal, N. (2023) Government Expenditure to the Arts and Cultural Sector. New Zealand: Toi Mai Workforce Development Council. Available at: <https://toimai.nz/wp-content/uploads/2023/10/Government-expenditure-to-the-arts-and-cultural-sectors-SPREADS.pdf>

Te Mata Raraunga (2023). Sector Insights. Available at: <https://www.workforceskills.nz/sector-insights/toi-mai/>

Toi Mai. (2022). Screen Workforce Survey. Available at: <https://toimai.nz/wp-content/uploads/2023/06/Screen-Workforce-Survey-Draft-Report-2022-Individual.pdf>

Toi Mai. (2023). Te Wao Nui o Toi. Available at: [https://toimai.nz/wp-content/uploads/2023/08/FINAL\\_Te-Wao-Nui-o-Toi.pdf](https://toimai.nz/wp-content/uploads/2023/08/FINAL_Te-Wao-Nui-o-Toi.pdf)

# SPORT AND REC SECTOR – SNAPSHOT

**Note:** The following data relates to the sport and recreation industries that Toi Mai represents

## VALUE OF THE SECTOR

# \$4.8bn

economic contribution or  
1.35% of NZ's GDP in 2022

## GROWTH OF THE INDUSTRIES

# 4.1%

Sport and Rec

VS

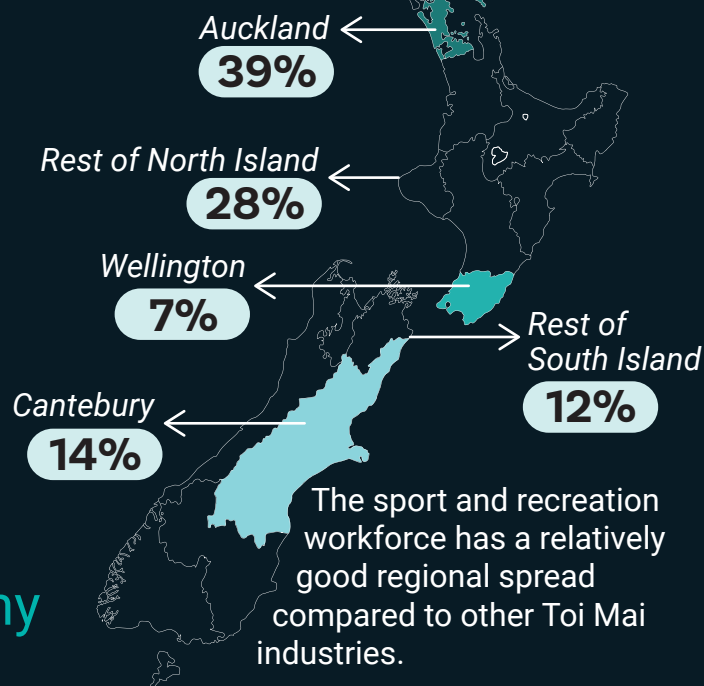
VS

# 3.2%

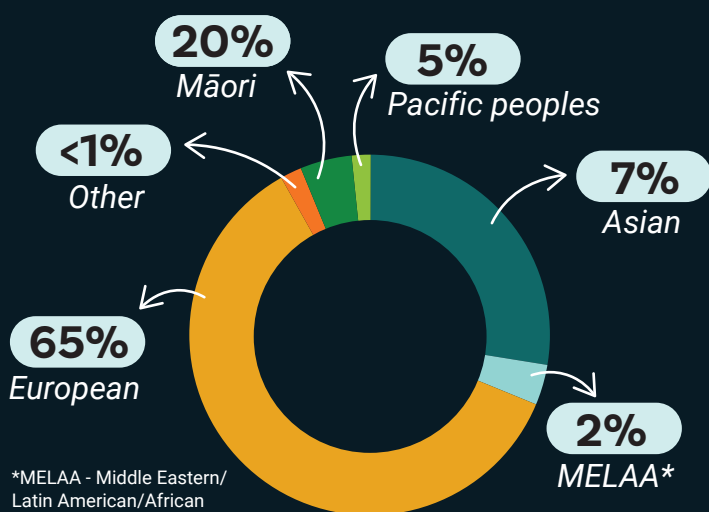
General Economy

Average GDP growth, 2015–2022

## BUSINESSES BY REGION



## ETHNICITY BREAKDOWN



## WORKFORCE SIZE IN 2022

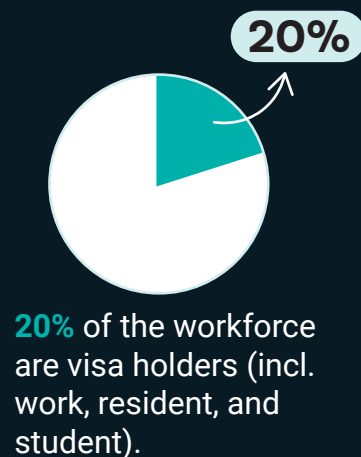
# 34,252

Number of individuals

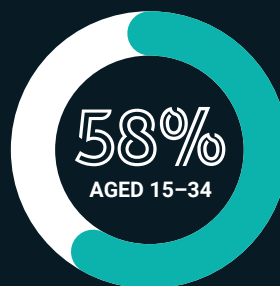
## GENDER BREAKDOWN



## VISA HOLDERS



## AGE BREAKDOWN



A relatively young workforce

### Industries covered:

- Sports and physical recreation clubs and professionals
- Sports and physical recreation venues, grounds, facilities and administrative operation
- Gym/fitness centre operation
- Amusement parks and other recreation
- Nature reserves and conservation parks operation

### Data sources:

- Infometrics Toi Ora – Sport and Recreation Profile, 2022
- Te Mata Raraunga, Workforce Skills Data and Insights, 2023
- Integrated Data Infrastructure, 2022

# Sport and recreation delivers a range of economic and social benefits, as well as a sense of pride and community to New Zealanders...

## 1 THE DIRECT ECONOMIC CONTRIBUTION OF SPORT AND RECREATION IS HIGH AND GROWING

**\$4.8bn**

Our Toi Mai Sport and Rec sector accounted for **\$4.8bn** of economic contribution, or **1.35%** of NZ's GDP in 2022.<sup>1</sup>



There are also wider social benefits to a healthier, more active Aotearoa.

## 2 THERE ARE ALSO WIDER SOCIAL BENEFITS TO A HEALTHIER, MORE ACTIVE AOTEAROA

Research shows that reducing presenteeism leads to a more productive economy.<sup>3</sup>



Sports and recreation also plays an important role in reducing public expenditure on health, by preventing disease and aiding rehabilitation and recovery.<sup>4</sup>



According to Sport NZ, for every **\$1** invested in recreational physical activity, **\$2.12** worth of social impacts are generated.<sup>5</sup>

**\$1**

**\$2.12**

SOCIAL IMPACTS



## 3 A THRIVING OUTDOOR RECREATION INDUSTRY IS ESSENTIAL FOR SUPPORTING TOURISM AND REGIONAL ECONOMIC DEVELOPMENT

Sport and recreation has the most regional spread of all of our Toi Mai sectors – highlighting the opportunity to aid regional development.<sup>6</sup>



A thriving outdoor recreation industry is essential for supporting tourism.



<sup>1</sup> Infometrics, 2022

<sup>2</sup> Infometrics, 2022

<sup>3</sup> RAND Corp., 2019

<sup>4</sup> Sport NZ, 2022

<sup>5</sup> Sport NZ, 2022

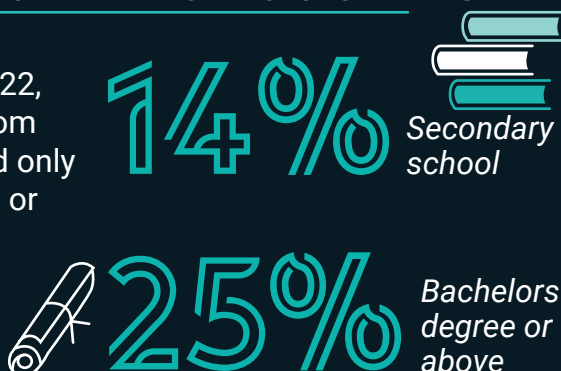
<sup>6</sup> IDI, 2022



# ...however, high churn hinders the development of this sector

## 1 SPORT AND RECREATION OFFERS MANY ENTRY-LEVEL OPPORTUNITIES

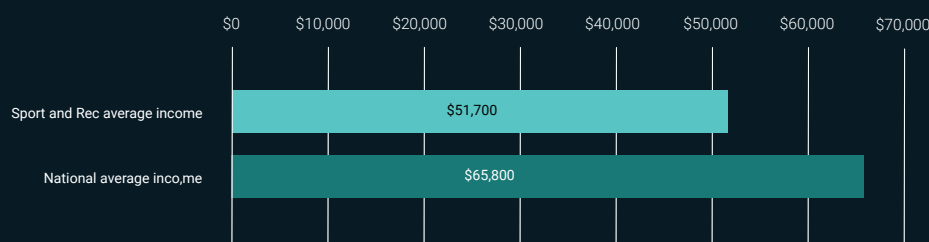
Of new entrants in 2022, **14%** came straight from secondary school and only **25%** held a Bachelors or above degree.<sup>7</sup>



A lot of roles in this sector are seen as entry-level, transition roles (e.g. lifeguard, sports centre admin).



## 2 HOWEVER, THERE IS A LACK OF CAREER DEVELOPMENT OPPORTUNITIES AND POOR REMUNERATION



The average income is only **\$51,700** compared to the national average income of **\$65,800** in 2021.<sup>8</sup>

Engagements with industry have also told us that there are low opportunities for upwards mobility in certain industries such as in exercise, sports coaching and outdoor recreation.



## 3 THE RENT-TO-WORK MODEL IN EXERCISE PRESENTS BARRIERS TO NEW ENTRANTS

The rent-to-work model for the exercise industry provides many barriers to early-entrants such as the upfront costs of getting started, and the pressure to get clients and generate income.



Our research shows that **53%** of industry leavers are not leaving for higher incomes, showing that income is not the only motivator for leaving industries.<sup>9</sup>

## 4 LEADING TO HIGH CHURN

**60%**

The data tells us that **60%** of the workforce leaves before their **first 2 years** of employment in the industry.<sup>10</sup>

Of those that leave, **80%** change industries<sup>11</sup>

**80%**



The loss of institutional knowledge coupled with a young, inexperienced workforce makes it difficult to reach a mature system.

<sup>7</sup> IDI, 2022

<sup>8</sup> Infometrics, 2022

<sup>9</sup> IDI, 2022

<sup>10</sup> Te Mata Raraunga, 2023

<sup>11</sup> Te Mata Raraunga, 2023



# We need to address that some graduates are not coming out of vocational education and training work-ready

## 1 QUALIFICATIONS HAVE NOT ALWAYS MET INDUSTRY NEEDS

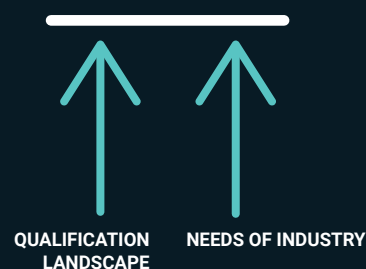


There are **554** recreation unit standards, which account for **53%** of our Toi Mai standards. However, many are not being used and have been expired.<sup>12</sup>

**53%** Toi Mai standards



We need to ensure there is alignment between the qualification landscape with the needs of industry. We are already undertaking work in this space.



## 2 TRAINING FOR OUTDOOR RECREATION EXPERIENCES A LOT OF ISSUES



Industry has told us there has been an increase in classroom-based teaching due to a lack of funding for provision...



...those learning in the classrooms are not work-ready when they graduate, as many have little practical experience.



For practical learning, there is a maximum ratio of **1:4 teachers to learners** for H&S reasons but this is often too expensive for providers. This results in graduates not having the practical skills required to work in the industry.

**1 = 4**  
Teachers Learners

<sup>12</sup> Toi Mai, 2023

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## FULL REFERENCE LIST

Infometrics. (2023) Toi Ora Profile. Available at: <https://industry.infometrics.co.nz/12150/Toi%20Ora%20%E2%80%93%20Sport%20and%20Recreation/>

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# TECH SECTOR – SNAPSHOT

## VALUE OF THE SECTOR

Technology is now the country's second biggest exporter and is the fastest growing sector worth

**\$20bn**

**8%**

NZ's GDP in 2022.<sup>1</sup>

Digital technology also enables other sectors to achieve greater productivity.

## GROWTH OF THE INDUSTRIES

**6.8%**

Technology

VS

**3.2%**<sup>2</sup>

VS

**General Economy**

Average GDP growth, 2015–2022

## GDP PER FTE

**\$177k**

GDP per FTE for the tech sector is around one-fifth higher than compared to the whole economy (**\$177k vs \$148k**).<sup>3</sup>

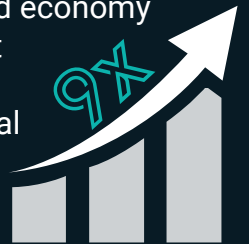
NZ average  
**\$148k**

## TECH EXPORTS

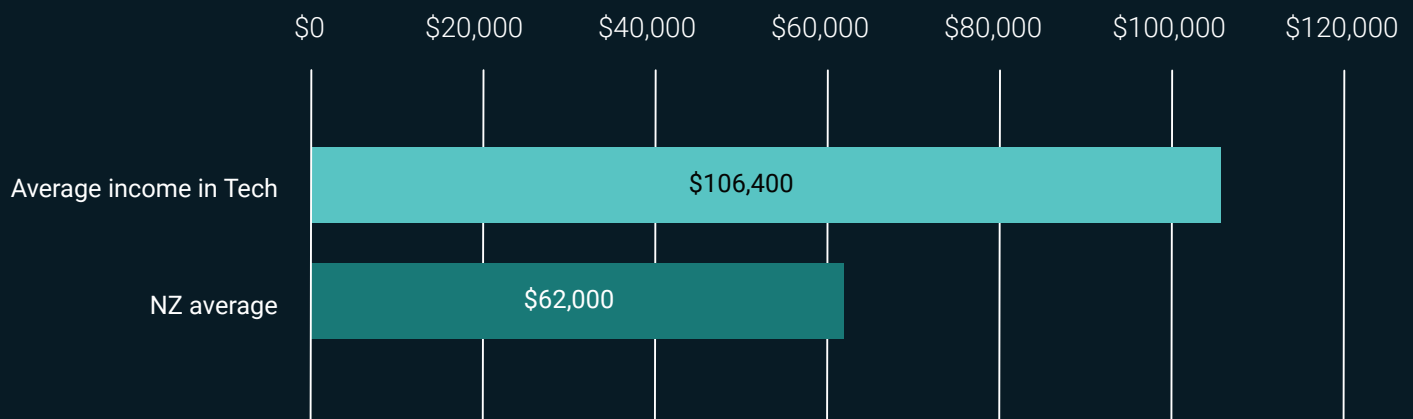
In 2022, the revenues of the **top 200** tech exporters exceeded

**\$15bn**

These companies grew nine times faster than the general New Zealand economy in 2022, delivering consistent and sustainable economic growth during immense global economic uncertainty.<sup>4</sup>



## AVERAGE INCOME<sup>5</sup>



<sup>1</sup> NZ Tech, 2022

<sup>2</sup> Infometrics, 2023

<sup>3</sup> Infometrics, 2023

<sup>4</sup> NZ Tech, 2022

<sup>5</sup> NZ Tech, 2022

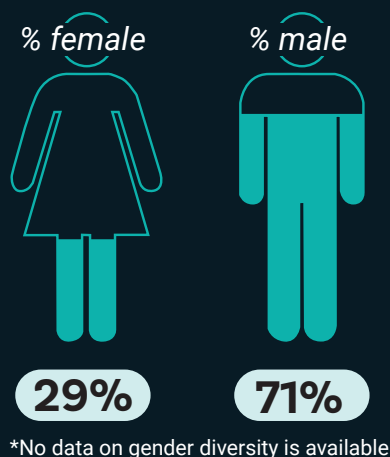
# TECH SECTOR – SNAPSHOT

## WORKFORCE SIZE IN 2022



The tech workforce is growing rapidly with 7,000 new, high paying jobs created in 2022.<sup>7</sup>

## GENDER BREAKDOWN



## WORKFORCE GROWTH

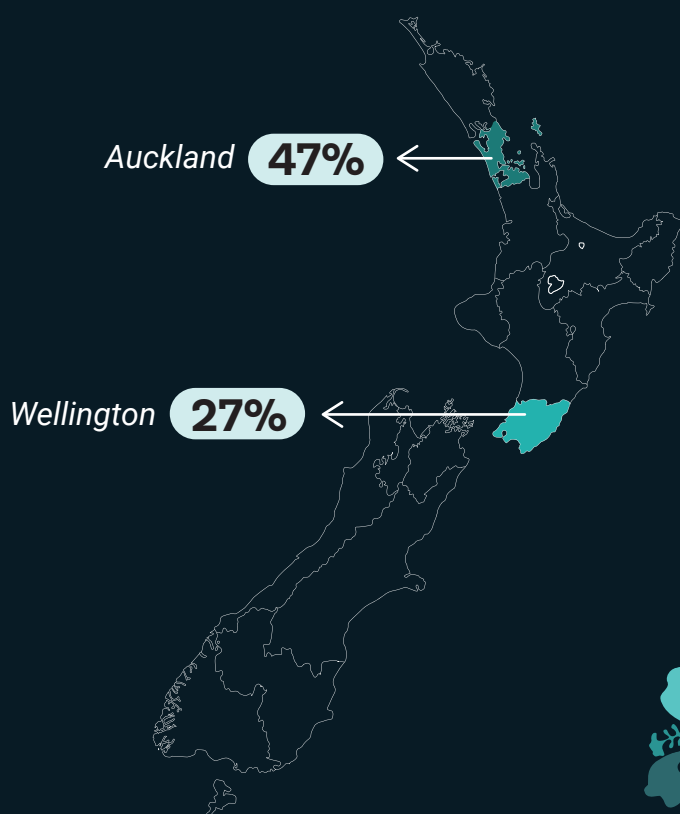
19%

Key technology occupation forecast growth 2023–2028.<sup>8</sup>



Total enrolment decline in digital technology courses (2010–2023).<sup>10</sup>

## BUSINESSES BY REGION



Business concentration in Auckland and Wellington but continues to grow in the regions.

Total provision investment decline in vocational education and training for digital technology courses (2010–2022).<sup>11</sup>

=\$22m

## ETHNICITY BREAKDOWN<sup>9</sup>

5%



Māori



4%

Pacific peoples

<sup>6</sup> Infometrics, 2023

<sup>7</sup> NZ Tech, 2023

<sup>8</sup> Infometrics, 2023

<sup>9</sup> NZ Tech, 2023

<sup>10</sup> Ngā kete, 2023

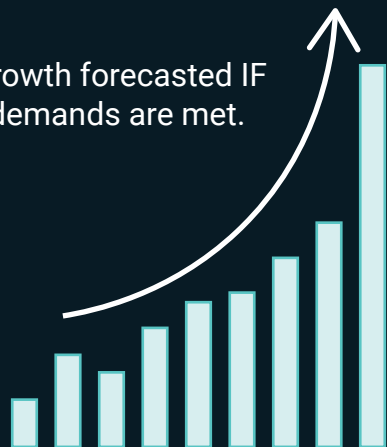
<sup>11</sup> Ngā kete, 2023

# The technology workforce makes a significant contribution to the economy with potential for exponential growth

1

## TECHNOLOGY IS NOW THE COUNTRY'S SECOND BIGGEST EXPORTER AND IS THE FASTEST GROWING SECTOR

There is exponential growth forecasted IF the tech industry skill demands are met.



2

## THE TECH WORKFORCE IS GROWING RAPIDLY



This surge in workforce expansion is particularly striking in the regions outside Auckland.



3

## TECH EDUCATION IS DECREASING AND INSUFFICIENT IN SUPPORTING WORKFORCE NEEDS

Investment in tech education and overall course enrolment has declined since 2011 despite industry demand for tech skills, particularly in the regions.



since 2011

The declining educational opportunities in this field raise concerns about the sustainability of the domestic workforce.

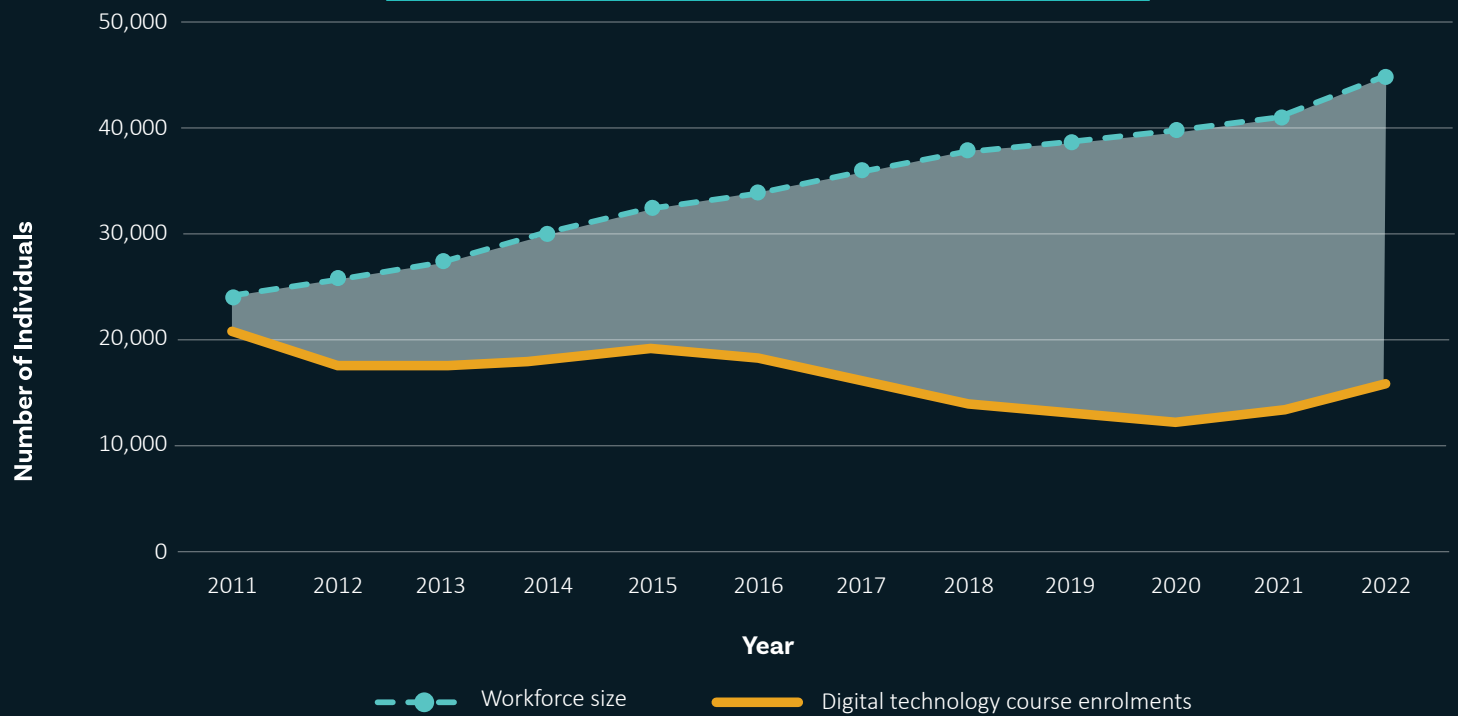


Increased internship and work-based provision would grow a domestic tech workforce.



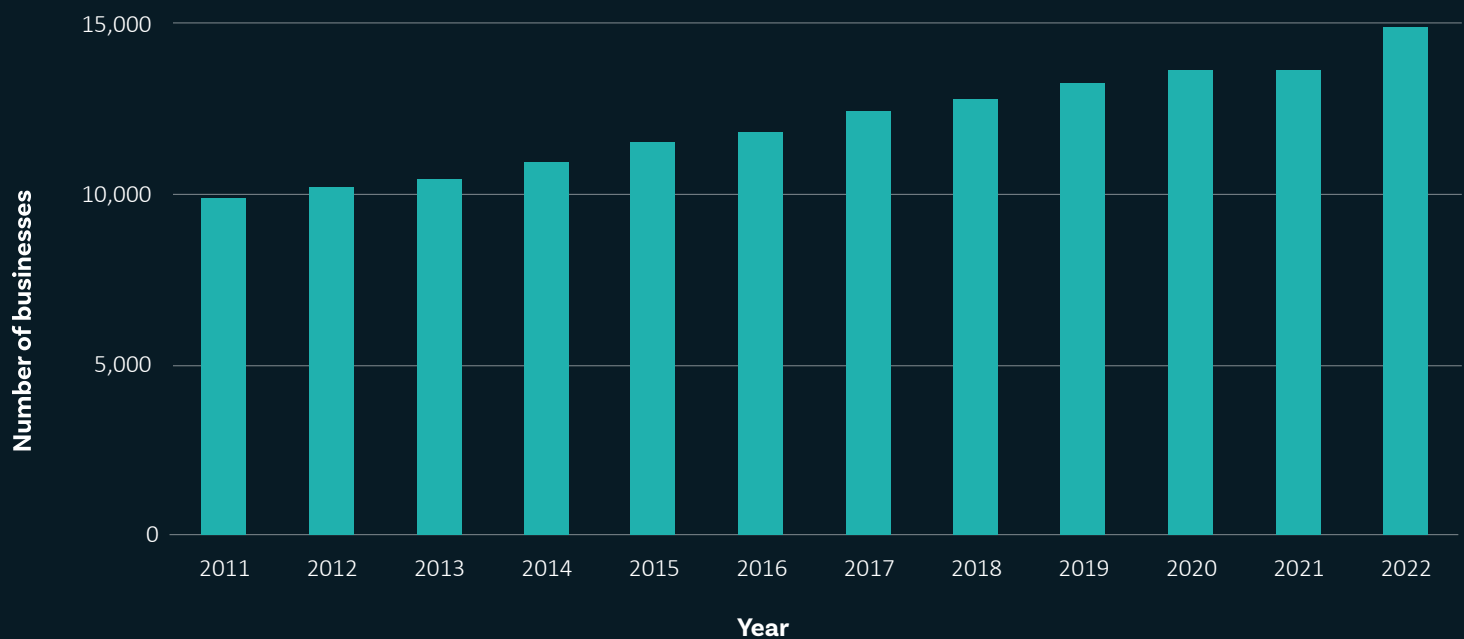
# TECH SECTOR – TRENDS

Workforce Size and Digital Technology Course Enrolment by Year



As workforce since 2011 has grown year-on-year, enrolments in digital technology courses has continued to decline.

Nationwide Business Count by Year



Similar to the trend in the workforce, the number of businesses has increased 51% between 2011–2022.

# We need to develop a domestic tech workforce to build resilience and grow the sector over the mid-long term

## 1 FOCUSED INVESTMENT IN TECH SKILLS COULD ACCELERATE NEW ZEALAND'S GROWTH AND POSITION US AS A WORLD LEADER IN TECHNOLOGY

Focused investment in tech training is needed to meet the forecasted exponential growth.



Potential growth as a weightless export. Contributing to NZ's low-emissions future.

Lifting investment in work-integrated and sub-degree tech education is needed to grow our domestic tech workforce.



## 2 DIVERSITY IS CRITICAL FOR NZ TECH SECTOR'S FUTURE

Increasing diversity in the tech workforce would help grow the domestic workforce and bring further benefit, such as increasing business success and raising incomes for diverse groups.



More visible pathways into tech for diverse learners, graduates and career changers would help meet workforce needs and create a more sustainable, local workforce.



## 3 A BETTER INTEGRATED TECH CURRICULUM IS NEEDED

The tech curriculum needs to be better integrated through introducing digital skills into the primary, intermediate, and secondary curriculum. This would broaden the pathways into the tech sector.



PRIMARY

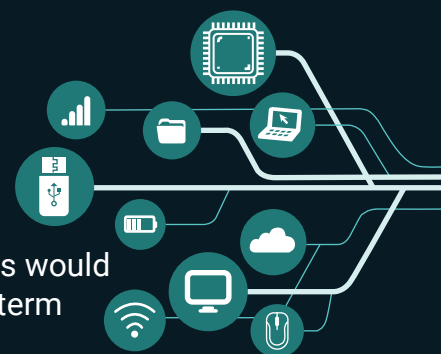


INTERMEDIATE



SECONDARY

Boosting awareness and visibility of Tech careers and pathways would also help close long-term workforce gaps.



# 0.5%

the proportion of 12-year olds consider any sort of tech career.<sup>12</sup>

<sup>12</sup> McKinsey, 2020



# NZ Tech firms are reliant on overseas recruitment at the mid and senior level to address immediate skill shortages

## 1 THERE IS AN UNMET SKILL DEMAND IN THE TECH SECTOR

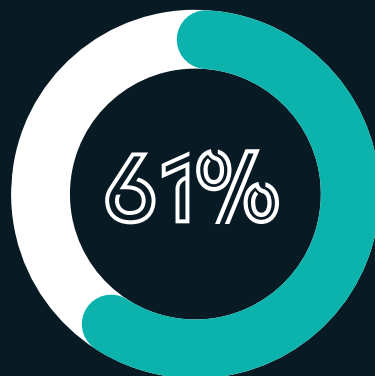
Especially for people with advanced digital skills and experience.<sup>13</sup> These tech roles require 5+ years of experience.



5+  
years  
of experience

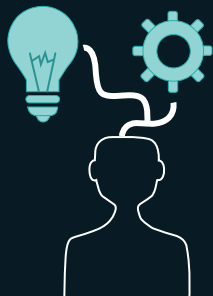
## 2 NZ STRUGGLES TO TRAIN TECH WORKERS AND KEEP THEM

Toi Mai engagement with the tech industry tells us that tech firms are currently advised to relocate overseas when they reach 9 FTE as it is too difficult to recruit tech roles in NZ. Accessing funding to support expansion is also a factor.



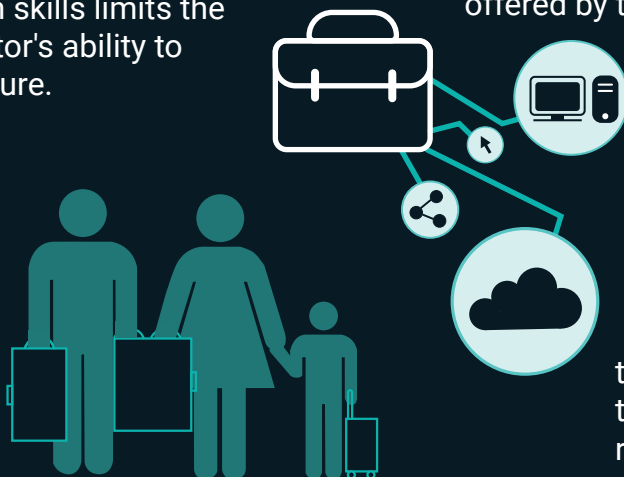
retention of new entrants of workforce in sector within 2 years.<sup>14</sup>

## 3 WE RELY HEAVILY ON IMMIGRATION TO FILL MANY SENIOR TECH ROLES

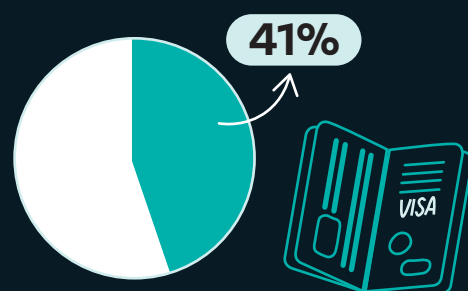


A lack of advanced tech skills limits the sector's ability to mature.

Instead of developing a domestic pipeline for a skilled workforce we continue to rely heavily on immigration.



Graduates struggle to enter the workforce as they require work experience and there are limited internship/junior tech jobs offered by tech firms.



the workforce across key tech roles are on a work or resident visa.<sup>15</sup>

<sup>13</sup> Digital Skills Research

<sup>14</sup> Te Mata Raraunga, Workforce Skills Data and Insights, 2023

<sup>15</sup> Te Mata Raraunga, Workforce Skills Data and Insights, 2023

## OPPORTUNITIES TO BOOST PRODUCTIVITY IN THE TECHNOLOGY SECTOR

To achieve exponential economic growth, the tech sector requires improved education pathways, development of work-based training and promotion of Tech careers.

### 1.

**Technology is now the country's second biggest exporter and is the fastest growing sector. The tech workforce is growing rapidly**

- In recent years, the NZ tech sector has experienced exponential growth, notably marked by a surge in the number of professionals in the field.
- Around 7,000 new, high paying jobs were created in 2022.

### 2.

**There is a persistent skills shortage that is currently met by overseas recruitment, which will continue without intervention**

- There is an unmet skill demand in the tech sector for mid and senior roles and NZ struggles to train tech workers and keep them.
- We rely heavily on immigration to fill many tech roles with almost half of all workers on an employment visa.
- Investment in tech education has been decreasing annually, particularly in the regions.

### 3.

**There's an opportunity for NZ to develop a domestic tech workforce to build resilience and grow the sector over the mid-long term**

- Focused investment in tech skills could accelerate New Zealand's growth and position us as a world leader in technology.
- Increased internship and work-based provision would grow a domestic tech workforce.
- A better integrated tech curriculum is needed introducing digital skills into the primary, intermediate, and secondary curriculum.
- Increasing diversity in the tech workforce would also help grow the domestic workforce and bring further benefits.

### Vocational Education and Training Provision

The investment in vocational education in technology subjects has significantly fallen between 2011 and 2022. The value has dropped **by 48% to \$35m** when adjusted for inflation. At the same time, degree-level investment in tech qualifications has increased by around 90%.<sup>16</sup>

# DISCLAIMER FOR STATS NZ DATA

Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Data and Statistics Act 2022. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers.

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) and Longitudinal Business Database (LBD) which are carefully managed by Stats NZ. For more information about the IDI and LBD please visit <https://www.stats.govt.nz/integrated-data/>

The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

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