NZTech

SEE TOMORROW FIRST

New Zealand Tech

Key Metrics

2023

NZTech

THE UNITED VOICE FOR TECHNOLOGY IN AOTEAROA NEW ZEALAND, ENABLING TECH FOR GOOD

The New Zealand Technology Ecosystem

NZTech is a not-for-profit collective impact association with a mission to support a values-led, nationally and internationally connected tech community that is collectively lifting safety, equity, sustainability and prosperity for all in Aotearoa, by creating jobs, export growth and impact through tech for good.

We support fact based decision making and every year we aggregate data from across the broader tech ecosystem. In 2016, for reporting consistency, we collaborated with the New Zealand Government on an agreed definition for the tech sector (see appendix).

This document provides a summary of updated key metrics for the New Zealand technology sector and the broader tech ecosystem for 2023. Where possible, we have included historical data to illustrate trends.

SEE TOMORROW FIRST

CONTENTS

NZTech

SEE TOMORROW FIRST

New Zealand's tech sector is growing, creating jobs and valuable exports.

NZTech

New Zealand's Tech Sector has
24,306
firms in 2023

New Zealand's tech sector contributed
$23b
to GDP in 2023

The number of digital tech firms in New Zealand grew
5.3%
in 2023

New Zealand's tech sector exported
$10.7b
worth of goods and services in 2023

New Zealand had
98,290
people working in ICT roles in 2023

New Zealand's tech sector employed
121,630
people in 2023

Tech was New Zealand's
3rd
largest export in 2023 after Dairy ($19.8b) and Tourism ($12.9b)

New Zealand's top 200 tech exporters revenues grew
13%
in 2023

New Zeland's tech sector created
3,560
new jobs in 2023

In 2023, software exports have been growing
20%
CAGR annually for over a decade.

SEE TOMORROW FIRST

Creating businesses

New Zealand's tech sector had

24,306

firms in 2023

Source: Statistics NZ 2024

The New Zealand tech sector was made up of 24,306 firms in 2023, an 3.7 percent increase year on year, creating 873 new tech firms. Note: some of these firms consist of single employee businesses, which probably includes some tech contractors.

The largest growth was in digital technology with 771 new firms in 2023, a 5.3 percent year on year growth rate.

873

new tech firms were created in NZ in 2023

Source: Statistics NZ 2024

The number of firms in the NZ digital tech sector grew

5.3%

in 2023

Source: Statistics NZ 2024
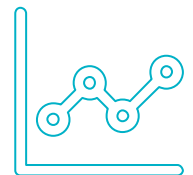
The number of firms in the NZ tech sector grew

3.7%

in 2023

Source: Statistics NZ 2024

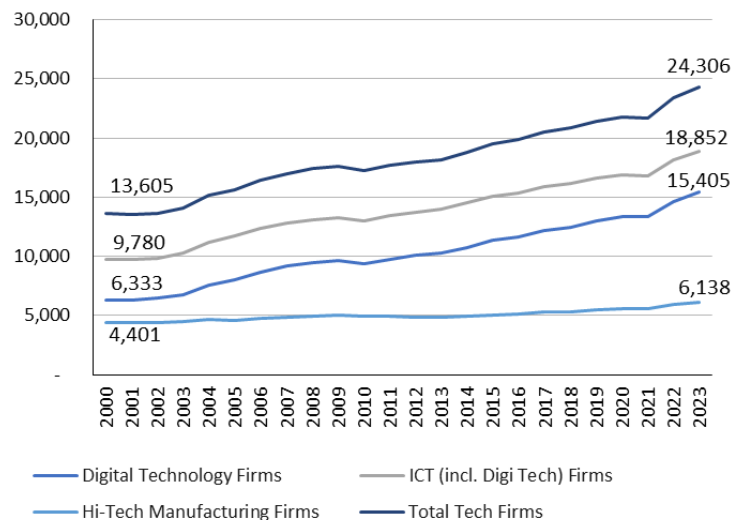**The number of firms in Christchurch's tech sector grew**

4.1%

in 2023

Source: Statistics NZ 2024

NZTech

SEE TOMORROW FIRST

Tech Sector Firms, 2000-2023

Legend:
- Digital Technology Firms
- ICT (incl. Digi Tech) Firms
- Hi-Tech Manufacturing Firms
- Total Tech Firms

Source: Statistics NZ 2024

Since 2000, the number of tech firms in New Zealand has been increasing at a rate of about three percent a year. While the number of hi-tech manufacturing firms has only increased at a rate of one percent per annum, digital technology (the fast growing part of the ICT sector) has been increasing at a rate of four percent.

There were 15,405 digital technology firms in New Zealand in 2023, up 5.3 percent from 2022. While more complex and capital intensive than digital technology firms, there were still 186 new hi-tech manufacturing firms in 2023, up 3.1 percent from 2022.

Auckland was home to 44 percent of tech firms, followed by Wellington (19 percent) and Christchurch (10 precent). The remaining 27 percent are spread through regional New Zealand.

Tech Sector Firms - By Region, 2000-2023

Legend:
- Auckland Tech Firms
- Wellington Tech Firms
- Christchurch Tech Firms
- Other Regions Tech Firms
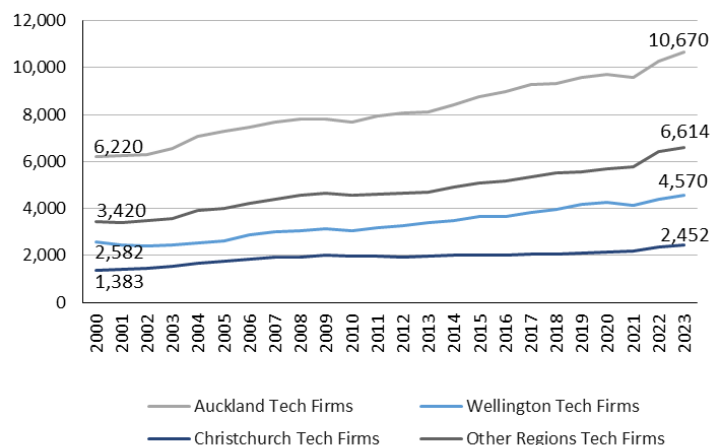
Source: Statistics NZ 2024

Auckland Tech Firms, 2000-2023

Legend:
- Auckland ICT Firms
- Auckland Hi-Tech Firms
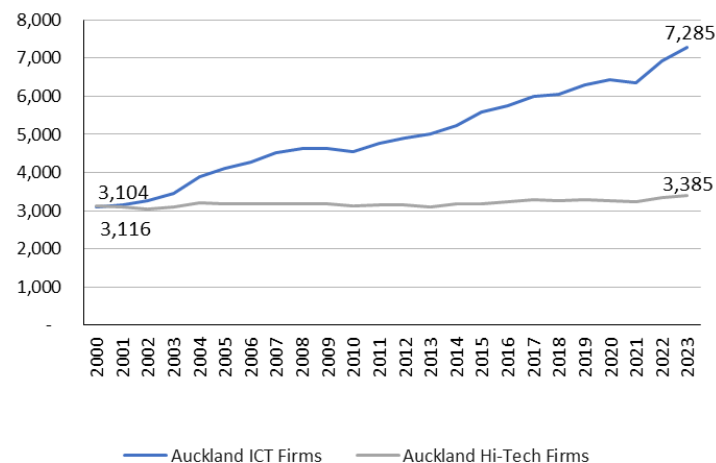
Source: Statistics NZ 2024

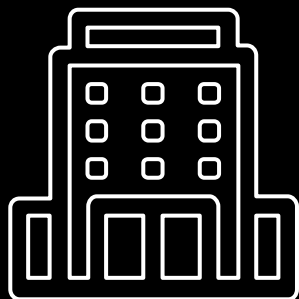# Tech Sector Firms by Region, 2023

	Hi-Tech Manuf.		ICT		Total	
Northland	311	3.5%	226	1.5%	537	2.2%
Auckland	3,385	38.1%	7,285	47.2%	10,670	43.9%
Waikato	896	10.1%	711	4.6%	1,607	6.6%
Bay of Plenty	605	6.8%	537	3.5%	1,142	4.7%
Gisborne	31	0.4%	37	0.2%	69	0.3%
Hawke's Bay	300	3.4%	234	1.5%	534	2.2%
Taranaki	260	2.9%	160	1.0%	420	1.7%
Manawatu-Wanganui	371	4.2%	234	1.5%	605	2.5%
Wellington	597	6.7%	3,973	25.8%	4,570	18.8%
Tasman	128	1.4%	86	0.6%	214	0.9%
Nelson	140	1.6%	128	0.8%	268	1.1%
Marlborough	120	1.3%	51	0.3%	171	0.7%
West Coast	51	0.6%	26	0.2%	77	0.3%
Canterbury	1,153	13.0%	1,299	8.4%	2,452	10.1%
Otago	354	4.0%	377	2.4%	731	3.0%
Southland	180	2.0%	60	0.4%	240	1.0%
	8,883		**15,423**		**24,306**	

NZTech

SEE TOMORROW FIRST

Source: Statistics NZ 2024

Creating jobs

NZ's tech sector employed

121,630

people in 2023

Source: Statistics NZ 2024

NZ's tech sector created

3,560

new jobs in NZ in 2023

Source: Statistics NZ 2024

NZ's tech sector employed

4.9%

of the NZ workforce in 2023
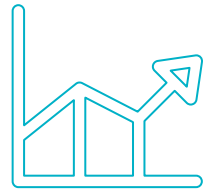
Source: Statistics NZ 2024

The companies in the New Zealand tech sector employed 121,630 people in 2023 across all roles.

Tech sector employment slowed through 2020 and 2021 due to COVID-19. Following the strong rebound in 2022 employment growth returned to normal in 2023, creating 3,560 new jobs, up three percent year on year.

The continuous growth of the New Zealand tech sector has created 46,937 new jobs for Kiwis between 2000 and 2023. The sector employed 4.9 percent of the New Zealand workforce in 2023, up from 3.9 percent in 2021.

The digital tech sector, a fast growing part of the tech sector, created 1,550 new jobs in New Zealand for Kiwis, a year on year growth of 3.5 percent.
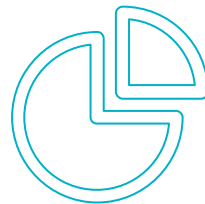
NZ's digital tech sector created
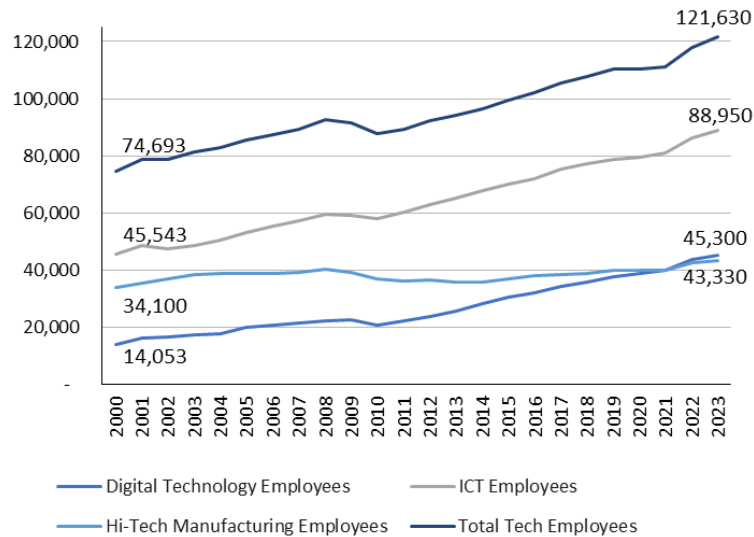
1,550

new jobs in NZ in 2023

Source: Statistics NZ 2024

SEE TOMORROW FIRST

Tech Sector Employees, 2000-2023

Source: Statistics NZ 2024

Tech sector job growth is driven by digital technology firms the fast growing part of the ICT sector, which is primarily made up of software-as-a-service (SaaS) firms. In 2023, the number of employees in the digital technology sector exceeded the number of employees in hi-tech manufacturing. Hi-tech manufacturing continued to grow creating almost 1,000 new jobs in New Zealand last year.

Auckland tech companies now employ 63,567 people, 52 percent of the tech sector workforce. Digital tech employment continues to grow rapidly in Auckland with 31,151 ICT workers, up 5.4 percent year on year.

More than 20 percent of the tech sector workforce continues to be based outside the main centres.
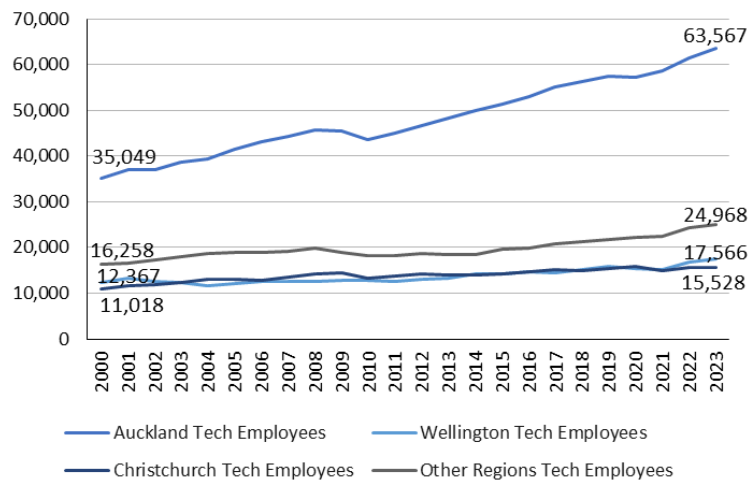
Tech Sector Employees - By Region, 2000-2023

Source: Statistics NZ 2024

Tech Sector Employees - Auckland, 2000-2023

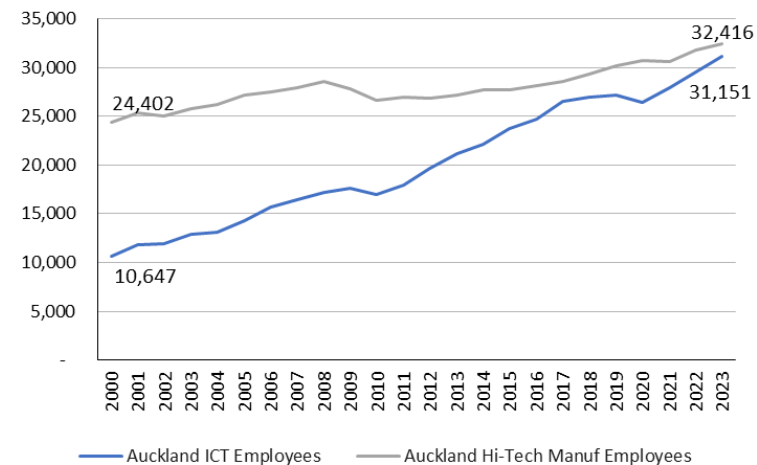Source: Statistics NZ 2024

9
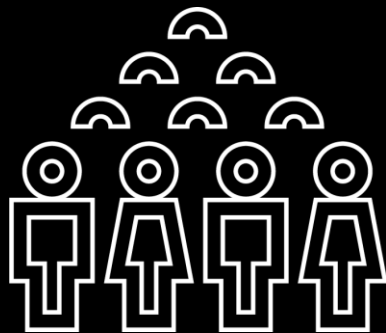
Tech Sector Workforce by Region, 2023

	Hi-Tech Manuf.		ICT		Total	
Northland	913	1.4%	235	0.4%	1,148	0.9%
Auckland	32,416	50.6%	31,151	54.1%	63,567	52.3%
Waikato	4,364	6.8%	2,162	3.8%	6,526	5.4%
Bay of Plenty	3,325	5.2%	894	1.6%	4,219	3.5%
Gisborne	201	0.3%	63	0.1%	264	0.2%
Hawke's Bay	1,441	2.3%	607	1.1%	2,048	1.7%
Taranaki	1,467	2.3%	395	0.7%	1,861	1.5%
Manawatu-Wanganui	2,302	3.6%	496	0.9%	2,798	2.3%
Wellington	3,984	6.2%	13,582	23.6%	17,566	14.4%
Tasman	424	0.7%	68	0.1%	491	0.4%
Nelson	1,029	1.6%	288	0.5%	1,317	1.1%
Marlborough	388	0.6%	51	0.1%	438	0.4%
West Coast	189	0.3%	33	0.1%	222	0.2%
Canterbury	9,021	14.1%	6,507	11.3%	15,528	12.8%
Otago	1,766	2.8%	906	1.6%	2,672	2.2%
Southland	804	1.3%	158	0.3%	963	0.8%
	64,034		**57,596**		**121,630**	

Across all sectors there were
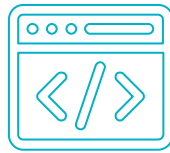
98,290

people in ICT jobs in New Zealand in 2023

Source: Ministry of Business, Innovation and Employment, 2024

The number of ICT workers in New Zealand increased

3.4%

in 2023

Source: Ministry of Business, Innovation and Employment, 2024

In New Zealand there were

33,250

software engineers and programmers in 2023

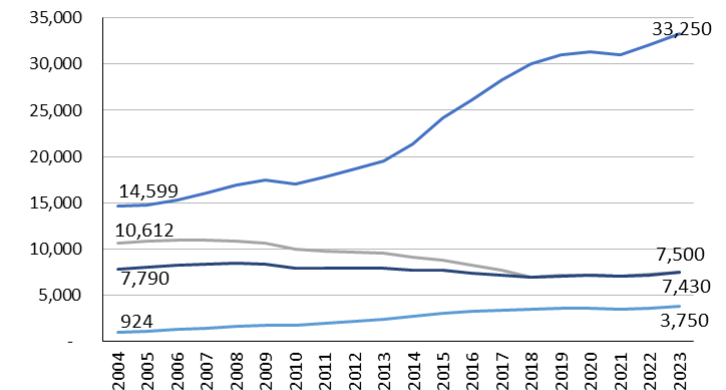Source: Ministry of Business, Innovation and Employment, 2024

While the tech sector is growing and creating jobs, the rest of the economy is also undergoing digitalisation. This means ICT professionals are in demand across the economy.

There were 98,290 ICT professionals working across all sectors, including the tech sector. This was a 3.4 percent increase year on year, or 3,220 new ICT jobs. Most of these jobs are computer programmers or software engineers (33,250) followed by ICT managers - project and product managers (14,100).

The fastest growth is website design and developer jobs, up 3.8 percent year on year.

Note: in 2023, there was a minor change to the research methodology to improve accuracy. To allow comparisons the updated methodology was applied back to 2015.

ICT Jobs, 2004-2023

Line chart showing ICT Jobs from 2004 to 2023 with four series:
- Software Engineer & Programmer Jobs: 14,599 in 2004 rising to 33,250 in 2023
- ICT & Customer Support Jobs: 10,612 in 2004 to 7,500 in 2023
- Network and Database Admin Jobs: 7,790 in 2004 to 7,430 in 2023
- Multimedia Specialist & Design Jobs: 924 in 2004 to 3,750 in 2023

Legend:
- Software Engineer & Programmer Jobs
- ICT & Customer Support Jobs
- Multimedia Specialist & Design Jobs
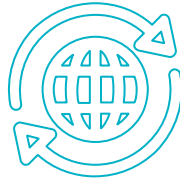- Network and Database Admin Jobs

Source: Ministry of Business, Innovation and Employment, 2024
Note: Historical data 2015-2022 updated by MBIE to reflect methodology improvements.

Creating export growth

New Zealand exported

$10.7b

worth of tech goods
and services in 2023

Source: Statistics NZ 2024

Software exports have been growing

20%

CAGR annually
for over a decade

Source: Statistics NZ 2024

In 2023, New Zealand exported $10.7 billion worth of technology goods and services, including $1.9 billion worth of software that helped make up $3.1 billion worth of ICT software and services exports.

Hi-Tech manufacturing exports were worth $7.6 billion in 2023 and accounted for 71 percent of tech exports.

Hi-Tech manufacturing exports rebounded in 2023 growing 9.2 percent year on year.

Software exports have been growing at 20 percent CAGR for over a decade and now account for 17.4 percent of tech exports.

Other tech exports in 2023 included ICT consulting and development services ($619 million), ICT support services ($320 million) and Hosting and IT infrastructure services ($307 million). While still a relatively small export market, the provision of hosting services from New Zealand grew 57 percent year on year to 2023.
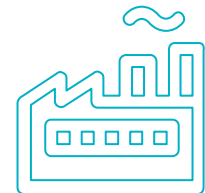
New Zealand exported

$3.1b

worth of ICT software
and services in 2023

Source: Statistics NZ 2024

New Zealand exported

$7.6b

worth of Hi-Tech
manufacturing in 2023

Source: Statistics NZ 2024

Tech made up

11%

of New Zealand's exports in 2023

Tech was New Zealand's

3rd

largest export after Dairy and Tourism in 2023

New Zealand's Exports, 2015-2023

	19,828
	12,942
	10,660
	8,729
	4,712
	3,504
	2,523
	1,935

2015 2016 2017 2018 2019 2020 2021 2022 2023

Dairy — Tech — Meat — Travel
Wood — Fruit — Wine — Fish
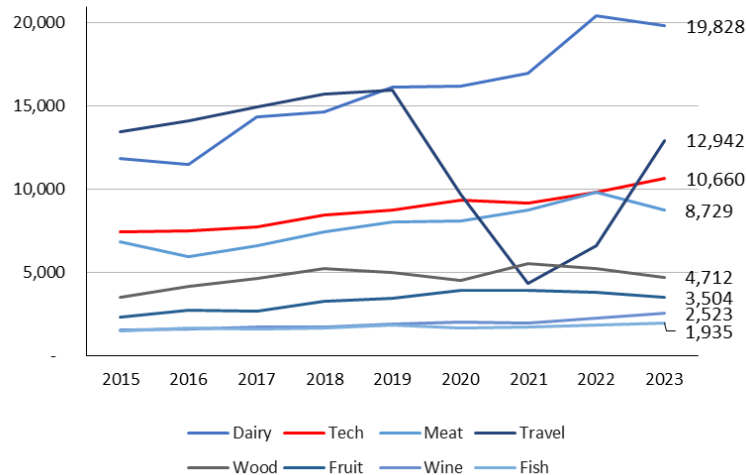
In 2023, tech exports accounted for 11 percent of all exports from New Zealand and are the third largest export category.

Dairy exports reduced by three percent year on year however they remain the largest export in value from New Zealand.

Tourism rebounded in 2023, growing 97 percent to return closer to pre-COVID levels.

Tech exports grew 8.7 percent year on year and continued to maintain a 5.8 percent growth rate across the past ten years.

New Zealand's largest 200 tech exporters contributed $13 billion of offshore revenue, a 13.5 percent year on year increase.

New Zealand's top 200 tech exporters had

$17.1b

in revenues in 2023

New Zealand's top 200 tech exporters had

$13b

in offshore revenues in 2023

A growing Māori tech sector

New Zealand had

85

significant Māori owned technology companies in 2023

Source: Toi Hangarau Report, Pāua Interface, 2024

New Zealand's Māori owned technology companies employed

1,300 people in 2023

Source: Toi Hangarau Report, Pāua Interface, 2024

Of the top 12 earning Māori technology companies

83%

were medium or large businesses in 2023

Source: Toi Hangarau Report, Pāua Interface, 2024

Of the top 12 earning Māori technology companies

42%
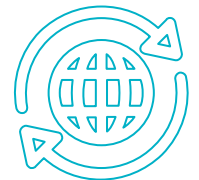
are operating internationally

Source: Toi Hangarau Report, Pāua Interface, 2024

In the second annual Toi Hangarau report into the emerging Māori technology ecosystem 85 significant Māori owned technology companies were identified. These companies employ over 1,300 people and the oldest company is 51 years old. Together, these 85 companies contain 909 years of business experience.

Among the enterprises, 55 operate primarily within the domestic market, 24 engage in international markets, and six are global companies with facilities or offices in other countries.

The twelve highest earning Māori tech businesses had a combined revenue of $160.5 million in 2023, a 33 percent year on year increase.

This information is courtesy of Pāua Interface, authors of the annual Toi Hangarau research.

SEE TOMORROW FIRST

Economic impact

New Zealand's tech sector contributed

$22.6b

to GDP in 2023

Source: Statistics NZ 2024

New Zealand's tech sector contributed

8%

of NZ's GDP in 2023

Source: Statistics NZ 2024

Each new tech sector job creates

4.8

other new jobs

Source: Digital Nation Report, 2016

In 2023, the New Zealand tech sector contributed $22.6 billion to GDP, a 7.5 percent increase from 2022.

The tech sector continues to account for eight percent of New Zealand's GDP.

The ICT/Digital sector contributed $15.2 billion to GDP, a growth of 11.6 percent year on year. High-tech manufacturing continued to contribute $7.3 billion to GDP, which has been static for several years.

Research has found that for every four percent growth in the productivity of the New Zealand tech sector, it contributes an additional $2.7 billion per year to GDP.

Additionally, for every new job created by the tech sector a further 4.8 jobs are created around that job in the local community.

Each 4% growth in tech sector productivity creates

$2.7b

additional GDP

Source: Digital Nation Report, 2016

Attracting global talent

There were

2,205

visas approved for ICT roles in 2023

Source: Immigration New Zealand 2024

ICT visa approvals were

15%

lower in 2023 than 2022

Source: Immigration New Zealand 2024

Software engineers and programmers had

843
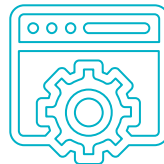
visas approved in 2023

Source: Immigration New Zealand 2024

69

visas were approved for cybersecurity professionals in 2023

Source: Immigration New Zealand 2024

Digital Skills research continues to find that while many new tech jobs are created, almost all require advanced skills and experience. To keep pace with the growth of the tech sector, and demand for ICT professionals across other sectors, immigration provides access to a experienced professionals.

In 2023 there were 2,205 visa approvals for people coming to work in ICT roles, including 843 software engineers and programmers.

Since the pandemic, digital technology employers have increased their focus on developing domestic talent and creating more entry level opportunities to reduce their reliance on immigration for talent. Consequently, visa approvals for ICT jobs were 15 percent lower in 2023 than 2022. Even in specialist high demand areas, for example cybersecurity, only 69 visas were issued as local training initiatives increased.

Attracting investment

Startups received

$163m

of investment in 2023

Investment was down in 2023. Total Early Stage* investment in 2023 reached $163 million, down from $186 million in 2022. However the number of deals remained consistent at 144 deals completed in 2023 compared to 142 in 2022.

*Early Stage refers to angels, incubators, university funds and early stage venture capital.

2023 saw only one major buy-out transaction (Push Pay) compared to six exits in 2022.

The average amount raised by new startups in 2023 was

$1.6m

There was a

22%

decrease in the average amount raised by startups in 2023

In 2023

$20.5m

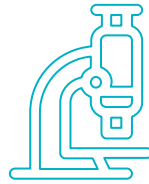**of investment was raised by New Zealand fintech companies**

There were

16

capital raising deals by New Zealand fintech companies

NZTech

SEE TOMORROW FIRST

Investing in R&D

Over **$1b**

was invested by ICT companies in R&D in New Zealand in 2023

Source: Statistics NZ 2024

Investment in R&D by ICT companies accounted for **29%**
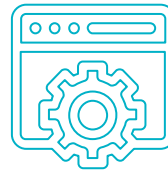
of business R&D in 2023

Source: Statistics NZ 2024

399

ICT companies invested in R&D in 2023

Source: Statistics NZ 2024

ICT companies invested 29 percent of all R&D spend, or $1,067 billion, in 2023. This investment came from 399 ICT companies, 17 percent of the businesses that invested in R&D.

In comparison, the primary sector invested $139 million and the food sector only $89 million.

Across all sectors, almost one-fifth of R&D was for information and communication purposes.

Almost one-fifth of R&D investment across all sectors, **18%**

was invested in ICT in 2023

Source: Statistics NZ 2024

R&D investment by ICT companies grew

1%

in 2023

Source: Statistics NZ 2024

SEE TOMORROW FIRST

18

Tech education

12,002

of Year 13 students enrolled in NCEA technology courses in 2023

Source: Ministry of Education, Education Counts 2024

Secondary School Enrolments Year 13 Students, 2008-2023

Key values shown on chart: 8,053; 3,811; 2,964; 5,332; 2,727; 2,651; 1,292; 0

Legend:
- Digital Technologies
- Computer Science/Programming
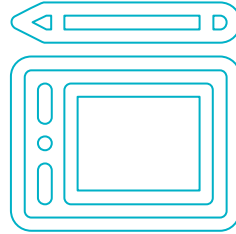- Digital Design/Graphics
- Other (eg Electronics, Info Mngt)
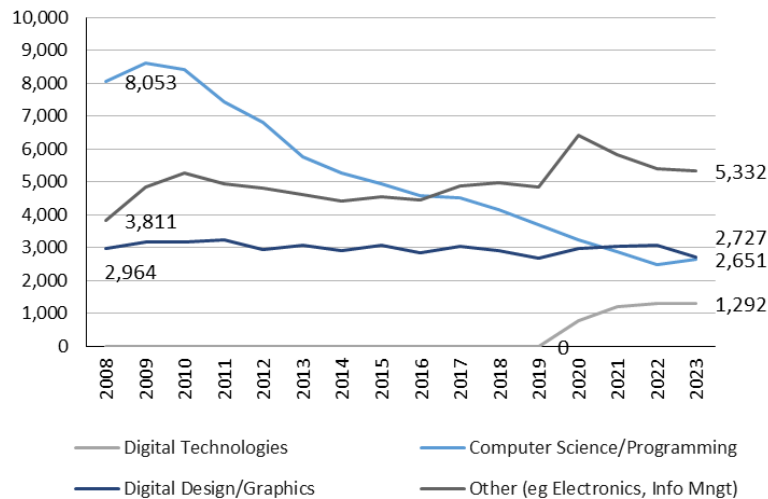
Source: Ministry of Education, Education Counts 2024

In 2023, there were 12,002 year 13 ākonga taking NCEA technology subjects including computer science, programming, digital design, graphics, electronics, information management and materials. This data excludes food technology and textiles technology subjects.

There was a two percent year on year decline in participation of NCEA technology subjects by year 13 ākonga in 2023, including an 11 percent decline in participation in digital design subjects.

However, following a 13 percent decline in 2022, the number of students taking computer programming increased by six percent in 2023 to 2,651.

No data was available in 2023 for gender or ethnicity. In 2022, 29 percent of year 13 students taking technology courses were female.

The number of Year 13 students enrolled in NCEA technology courses declined year on year by

-2%

in 2023

Source: Ministry of Education, Education Counts 2024

25,950

students were enrolled in tertiary level IT qualifications in 2023

Enrolments Tertiary Level IT Courses 2012-2023

Computer Science — Information Technology — Software Engineering — Other
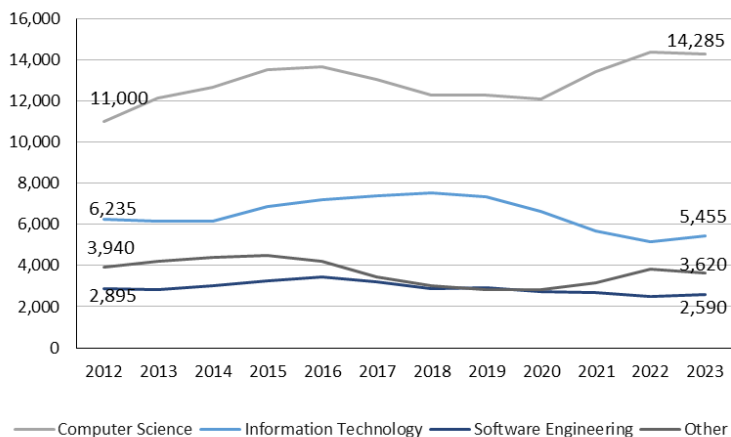
11,035

domestic student were enrolled in IT degrees in 2023

In 2023, from certificates to PhDs, there were 25,950 students taking tertiary information technology (IT) courses at any level. This was only a one percent growth from 2022, driven by an 8 percent decline in domestic students and a 32 percent increase in international students.

However the decrease in domestic enrolments was across lower valued certificate courses. Domestic enrolments in IT degree level courses increased by 22 percent in 2023 to 11,035. Domestic IT degree enrolment grew 12.4 percent in computer programming and 10.8 percent in multimedia computing, but declined 17 percent in cybersecurity.

Domestic enrolments in IT degrees grew by

21.6%

between 2022 and 2023

Domestic enrolments in degree level multimedia computing courses grew

10.8%

between 2022 and 2023

Domestic IT Degree Enrolments
by key subjects, 2012-2023

Legend:
- Computer Programming
- Systems Analysis and Design
- Algorithms & AI
- Software Engineering
- Networks & Communications
- Cybersecurity
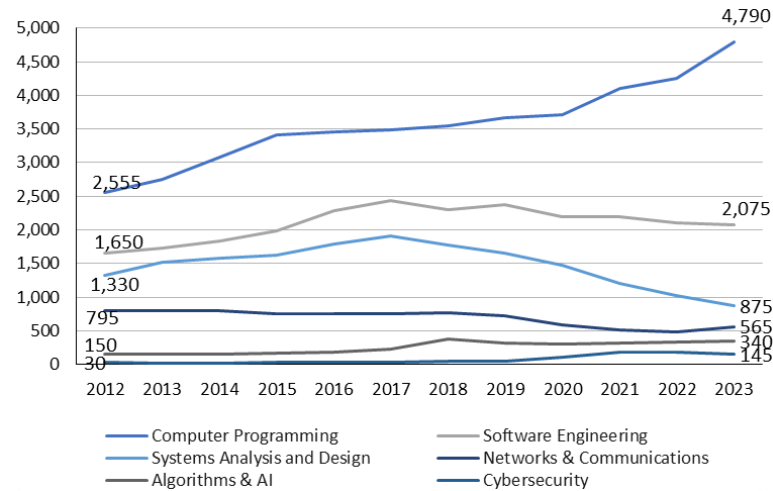
Source: Ministry of Education, Education Counts 2024

Domestic IT Degree Enrolments
Percent Female, Māori & Pacific
2015-2023

Legend:
- Female
- Māori
- Pacific Peoples
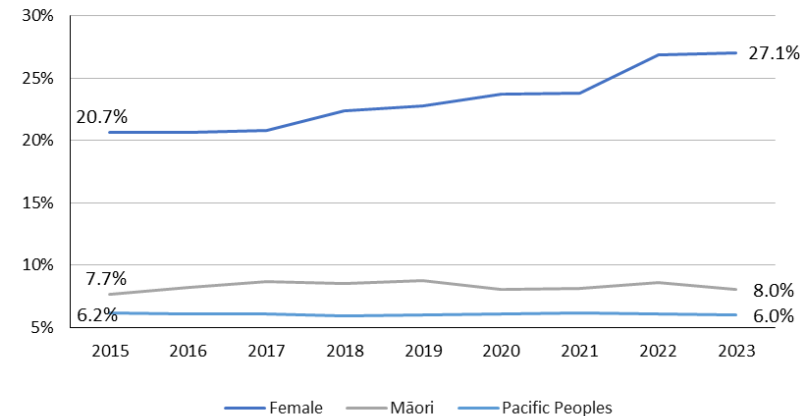
Source: Ministry of Education, Education Counts 2024

Of the 11,035 domestic students taking IT degree level courses, 4,790 were studying computer programming and 2,075 software engineering.

In 2023, there were 4,150 domestic students who transitioned from school to IT degrees, an increase of 73 percent from 2022 and the highest growth of new domestic IT degree enrolments recorded.

While enrolment in IT degree courses grew, it was driven by a 16 percent increase in Asian student, whereas Māori IT degree enrolments declined by one percent.

There continues to be proportionately low levels of enrolments by females (27%), Māori (8%) and Pacific Peoples (6%) in IT degree level courses.

4,150

students moved from school to begin IT degrees in 2023

Source: Ministry of Education, Education Counts 2024

27%

of domestic students taking IT degrees in 2023 were female

Source: Ministry of Education, Education Counts 2024

6,775

students graduated from any tertiary level IT qualification in 2023

Source: Ministry of Education, Education Counts 2024

Graduates of Tertiary Level IT Courses 2013-2023

3,640 ... 3,675
2,240
1,915 ... 1,395
1,155
675 ... 550

Legend: Computer Science — Information Technology — Software Engineering — Other
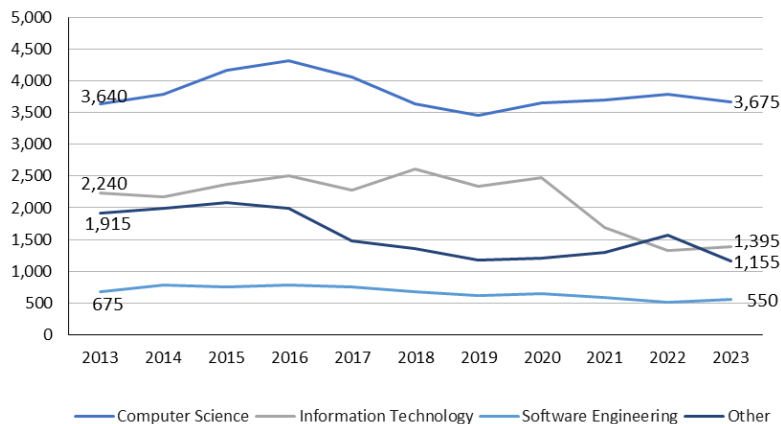
Source: Ministry of Education, Education Counts 2024

2,250

domestic students graduated from IT degrees in 2023

Source: Ministry of Education, Education Counts 2024

Students graduating with tertiary qualifications in IT declined by 5.6 percent in 2023 to 6,775 graduates. However there was a 5.7 percent increase in information technology and 7.8 percent increase in software engineering graduates, with the decrease in lower level certificates.

There were 2,250 domestic students graduating with IT degree level qualifications, a 2.7 percent year on year increase.

The high growth area was multimedia computing with 140 degree level graduates in 2023, up 47 percent. Only 65 students graduated with cybersecurity degree level qualifications, down 7 percent.

Diversity remains an issue with only 120 Māori IT degree graduates in 2023, 75 Pacific Peoples and 485 females.

Domestic IT Degree Graduates by key subjects, 2013-2023

345 ... 590
335 ... 420
245 ... 190
155 ... 115
35 ... 65
10 ... 55

Legend: Computer Programming — Software Engineering — Systems Analysis and Design — Networks & Communications — Algorithms & AI — Cybersecurity
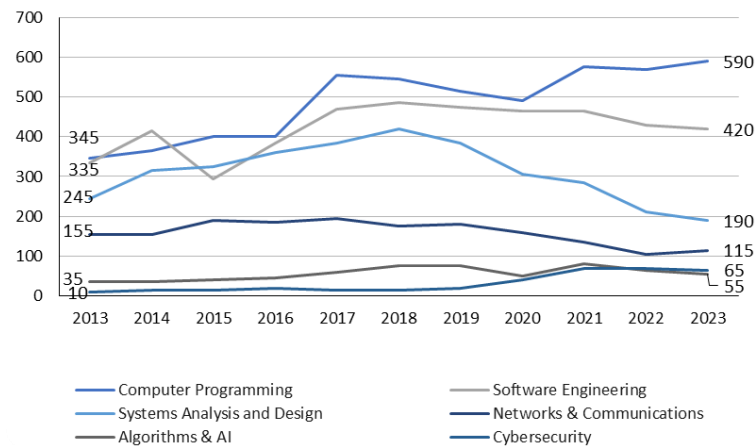
Source: Ministry of Education, Education Counts 2024

Tech Sector Definition

Manufactured Tech

ICT

C242 Communication equip. manufacturing eg. Tait Communications

C242 Computer & electrical equipment manufacturing eg. ERoad, Dynamic Controls

C242 Other electronics manufacturing eg. Rakon

C243 Electric cable & wire manufacturing eg. General Cable Superconductors

C241 Other scientific equip. manufacturing eg. AD Instruments, AuCom, Atrak

High Tech Manufacturing

C241 Medical equipment manufacturing eg F&P Healthcare

C239 Aerospace manufacturing eg. Pacific Aerospace

C245 C246 C249 Machinery manufacturing eg. Glidepath, Scott Technology, Compac

C243 Electrical equipment manufacturing eg. Wellington Drive

Biotechnology

C184 Pharmaceutical & medical manuf. eg. Douglas Pharmaceuticals, Argenta

C181 Basic Chemical and Chemical Product Manufacturing eg. LanzaTech, Zelam, Nuplex

M129 Technology research activities eg. Mint Innovation

C189 Other Manufacturing nec eg. Revolution Fibres

Telecommunications

J580 Telecommunications services eg. Spark, One, Chorus, 2Degrees

F349 Telecommunication goods wholesaling eg. Atlas Gentech

J591 Internet service providers eg. Inspire.net, Now

J580 Other telecommunications services eg. CallPlus, Kordia

Other

F349 Wholesaling of ICT goods eg. Duo, Ingram Micro

Digital Technologies

J592 Data processing, web hosting & storage services eg. Revera, Paymark

M700 Computer System Design

IT Service businesses eg. Datacom, Spark Digital, CodeHQ

Software as a Product businesses eg. Orion Health, Vista Group, Gentrack

Software as a Service businesses eg. Xero, Vend, Pushpay

J542 Software publishing (Interactive Media) eg. Rocketwerks, PikPok

The Tech Sector is made up of ICT and Digital Technology, Interactive Media and Gaming, Hi-Tech Manufacturing and Biotechnology firms.

While not perfect, using standard ANZSIC codes enables international comparison and long-term tracking.

The fastest area of growth are M700 Computer System Design firms that include Software-as-a-Service, Software-as-a-Product and Interactive Media and Gaming sectors.

NZTech

Helping to create a safer,
more equitable, sustainable
and prosperous

Aotearoa New Zealand
underpinned by
good tech.

techweek

SEE
TOMORROW
FIRST

TECH
ALLIANCE

THE CODE