

TIN

**Tātaki
Auckland
Unlimited**



AUCKLAND TECH SECTOR (TIN200)

**Insights Report
Industry Summary**



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Introduction

Tāmaki Makaurau Auckland is the epicentre of Aotearoa New Zealand's technology sector, with more than 11,000 firms employing 70,000 people¹. The region was home to 112 of the country's top 200 tech companies (TIN200) in 2022, and many of the largest growing manufacturers, software, and biotech companies. These tech exporters are shifting the centre of gravity of our region's economy towards fast growth, higher wages, and productivity.

Total revenue growth among Auckland TIN200 companies was 5.7 per cent in 2022, below the five-year compound annual growth rate of 10.4 per cent. Despite the challenges currently facing both the domestic and global economy coming out of the pandemic, Tāmaki Makaurau Auckland tech companies' share of revenue from exports continues to rise, reaching 83 per cent in 2022. Much of this recent growth has been driven by demand from Asia. The exposure to a diverse range of global markets underpins these companies' resilience and growth.

This allowed for strong local job growth in 2022 (9.1 per cent), even with current labour shortages. This sustained growth continues to attract investment from overseas, with investors looking to leverage the acceleration of digital adoption worldwide, which has been largely driven by the pandemic. This is evidenced by especially impressive revenue growth in the information and communications technology (ICT) sector.

Of course, we cannot ignore the current wave of tech layoffs globally, a so-called 'rightsizing' of the workforce following pandemic-led growth. This is also flowing through to Auckland, with well-publicised layoffs in some of our leading tech companies. Furthermore, the collapse of Silicon Valley Bank is seeing investors in the United States pull back further than they already have been in recent months.

At Tātaki Auckland Unlimited, we have partnered with industry to develop and deliver Tech Tāmaki Makaurau, a three-year programme of action to further position Auckland as a global epicentre of innovation, technology, and talent that creates an inclusive and equitable future for all.

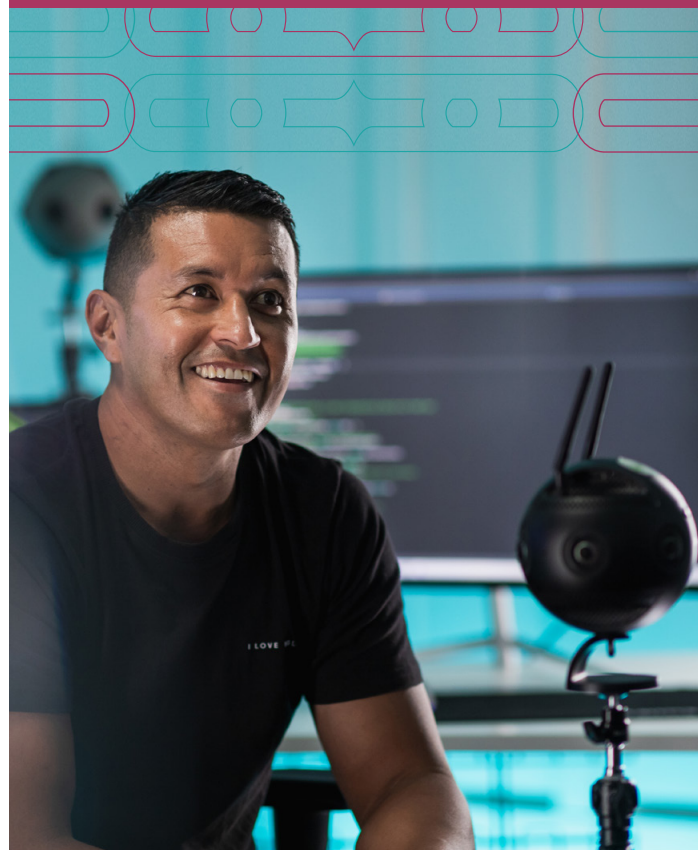
Being values led and prioritising 'tech for good' innovation that solves humanity's biggest challenges will set us apart on the global stage. We are committed to supporting the growth of incredible tech companies, and exporting Auckland to the rest of the world.

Tech Tāmaki Makaurau will harness our youthfulness, our creativity, and our tech skills, and position Auckland, and New Zealand, as a thriving tech hub.

This insights report presents key data and insights into Auckland's TIN200 companies and their performance in 2022², structured around the three pillars of our Tech Tāmaki Makaurau strategy, namely **manaakitanga** (attracting home-grown and international talent), **kaitiakitanga** (a sustainable and equitable future), and **kotahitanga** (a globally connected, inclusive and collaborative tech city).

1. Based on Tātaki Auckland Unlimited definition of the technology sector, which derives from OECD medium- and high-tech industry definition.

2. Data in this report was provided to Tātaki Auckland Unlimited by the Technology Investment Network (TIN), unless otherwise stated.



Tech Tāmaki Makaurau Strategic Framework

VISION | TE MATAWHĀNUI

Tāmaki Makaurau Auckland: a global epicentre of innovation, technology and talent that creates an inclusive and equitable future for all

Manaakitanga

creating a tech ecosystem that is a beacon for home-grown and international talent

Kaitiakitanga

developing a tech industry that delivers a sustainable and equitable future for all

Kotahitanga

growing Tāmaki Makaurau as a globally connected, inclusive and collaborative tech city

PURPOSE | KAUPAPA

Tuku ihotanga

create pathways for home-grown tech workforce

Mahi tahi

foster an equitable tech ecosystem

Whakaaro tūhonohono

foster a culture of sharing ideas, expertise, and knowledge

Tāuira ao whānui

attract global tech talent, entrepreneurs, and international students

Amo ake

support 'tech for good' developments

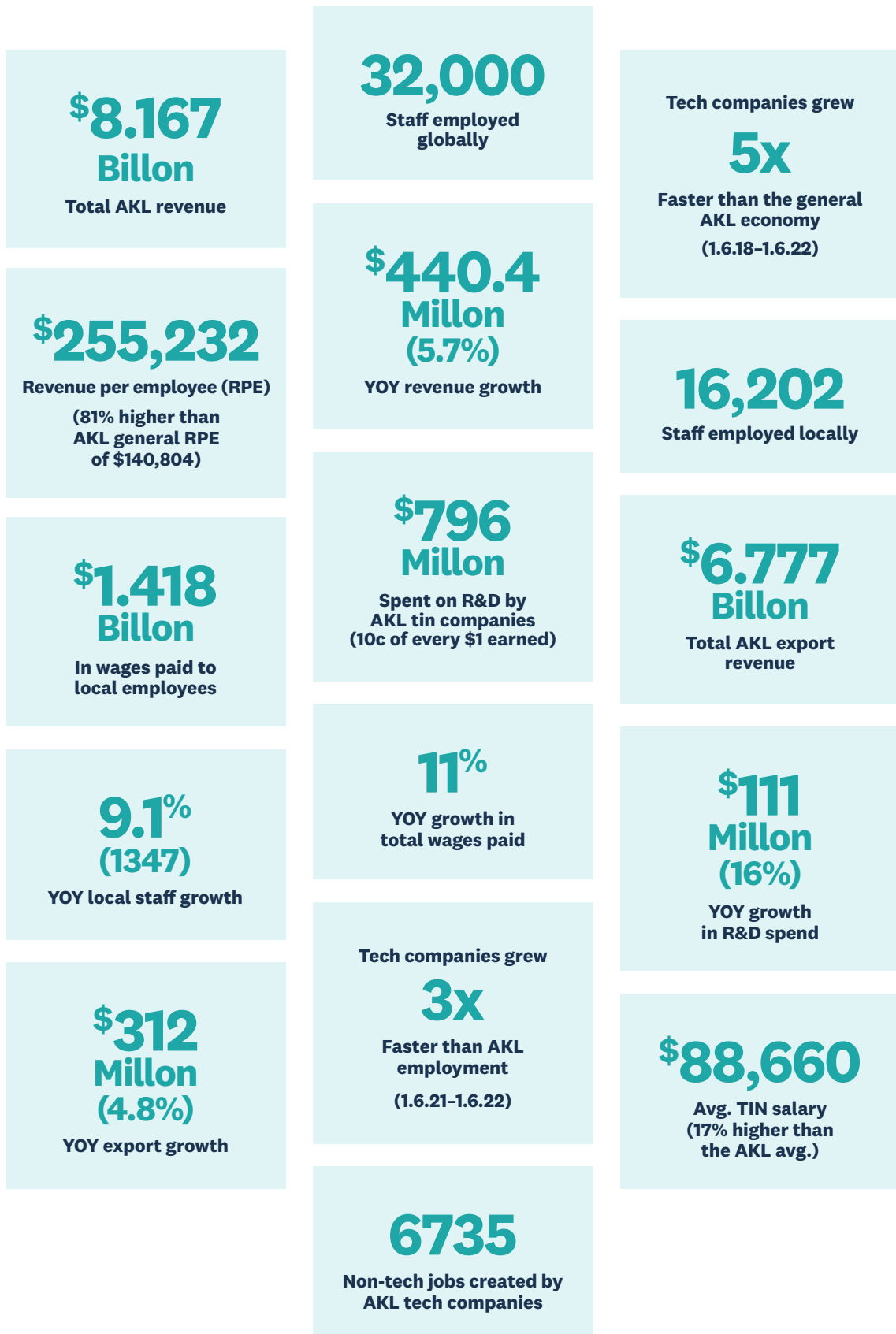
Mahi ngātahi

build a globally connected and collaborative tech ecosystem

ACTIONS | MAHI

- Increase number employed in the tech industry, particularly Māori, Pacific peoples, youth, and women
- Increase and scale tech career pathway programmes
- Attract best international tech talent at all levels
- Work with partners to reduce inequity of access to technology and resources
- Commitment to social procurement made by all local government organisations
- Increase access to funding for indigenous tech businesses
- Establish knowledge intensive hubs across the city
- Identify successful tech leaders and companies to showcase domestically and internationally
- Increase number of export-ready tech businesses
- Form partnership agreements with offshore tech hubs

Auckland Tech Economy Headline Stats 2022



Manaakitanga

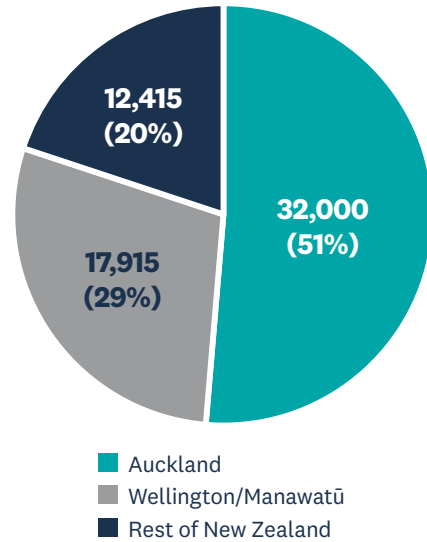
Creating a tech ecosystem that is a beacon for home-grown and international talent

Auckland is home to 112 of New Zealand’s top 200 tech companies (TIN200). These companies employ more than 16,000 people locally, and almost the same amount overseas, with companies in high-tech manufacturing and ICT accounting for the majority of jobs. Jobs at TIN200 companies are well paid, highly productive, and have been growing at a faster rate than the rest of the economy.

Employing local and overseas talent

More than 32,000 staff were employed globally by Auckland’s 112 TIN200 companies in 2022, an increase of over **2900** (10.1 per cent) in the last year. Over half of these (**16,200**) are employed in the Auckland region itself, and our TIN200 companies created **1350** new jobs for Aucklanders in 2022.

Global employees of TIN200 companies by region



Primary sector	TIN200 companies in Auckland	Total (global) employees	Auckland-based employees
High-tech manufacturing	41	19,070	9211
ICT	66	11,310	5689
Biotech	5	1620	1302
TOTAL	112	32,000	16,202

The high-tech manufacturing sector accounts for 60 per cent of global and 57 per cent of local employment, respectively, by Auckland’s TIN200 companies, led by Fisher & Paykel Healthcare and Fisher & Paykel Appliances, New Zealand’s two largest tech companies. This is followed by the ICT sector, which accounts for 35 per cent of both global and local employment, and a handful of biotech companies.



High incomes, productivity, and job creation

While the 16,200 people employed locally by Auckland TIN200 companies account for 2 per cent of our region's workforce, they contribute 6.4 per cent of its GDP. Auckland's TIN200 companies paid more than \$1.4 billion in local wages in 2022, a revenue per employee (RPE) of over \$255,000 – 81 per cent higher than the RPE of \$140,800 across the rest of the Auckland economy.

Auckland-based TIN200 employees earn an average annual wage of \$88,660, significantly higher than the average across the entire Auckland economy (\$75,550). The average wage among TIN200 ICT companies is even higher, at \$106,200.

In addition to providing well-paid and highly productive jobs, it is estimated that each new job created in the tech sector locally creates an additional five jobs outside the sector. This means that the 1350 new jobs created locally by Auckland's TIN200 companies in 2022 potentially led to another 6750 new jobs across the rest of our region's economy.

Key challenges – gaps in skills and diversity

While these figures are impressive, the tech industry is not without its challenges when it comes to labour supply. Chief Executive of NZTech, Graeme Muller, stated in 2022 that the **biggest challenge for the continued growth of the tech sector is access to skills**. Low numbers of locals studying tech, as well as border closures during the pandemic, has led to skills shortages³. In fact, a survey in 2021 found that 40 per cent of tech firms in New Zealand had been unable to take on new work or get their product to market due to critical worker shortages induced by border restrictions⁴.

Conversely, there has been a wave of tech layoffs globally in 2023, a so-called 'rightsizing' of the workforce following pandemic-led growth. This is also flowing through to our local tech sector, with well-publicised layoffs in some of our leading tech companies.

In terms of attracting global talent, the inclusion of most tech roles on the immigration Green List has been welcomed by industry. This makes it easier for employers to attract and hire migrants in highly-skilled and hard-to-fill roles by providing a clearer pathway to residency. In terms of local workforce development, government and industry collaboration on the Digital Technologies Industry Transformation Plan (ITP) includes initiatives to attract more women, Māori, and Pacific peoples. Furthermore, a priority of the Advanced Manufacturing ITP is developing and attracting a diverse, highly-skilled, and high-wage workforce.

One of the wero, or challenges, identified in the Tech Tāmaki Makaurau strategy is the current **lack of diversity in Auckland's tech workforce**, with an underrepresentation of women, Māori, Pacific, and young people.

3. NZTech media release, "Biggest NZ tech challenge is access to skills", 9 August 2022

4. NZTech Alliance Critical Workers Survey, July 2021



Women only make up just over 30 per cent of Auckland's tech workforce, while Māori and Pacific peoples account for 12 per cent⁵ despite making up 21 per cent of the workforce across the rest of our economy. In ICT-specific roles, the proportion is even lower.

Workforce forecasts available to Tātaki Auckland Unlimited from economic consultancy Infometrics show that Māori and Pacific peoples will account for 37.5 per cent of the increase in Auckland's labour force over the next five years. This is driven by demographic trends – while Māori and Pacific peoples combined make up 27 per cent of Auckland's total population, they account for over 43 per cent of youth under the age of 15.

There are many benefits to be gained by fostering the skills, creativity, and innovation of a more diverse workforce. As stated in our Tech Tāmaki Makaurau strategy, we have a unique cultural advantage that allows Tāmaki Makaurau to take a genuinely differentiated and innovative approach to forging our identity. For example, being values led and embracing the principles of Te Tiriti o Waitangi and tikanga Māori, will set us apart on the global stage, as well as creating opportunity and improving inclusivity for Māori.

Te Au Hangarau – The Wave of Technology research⁶

Recent research commissioned by Tātaki Auckland Unlimited and Spark Foundation, in association with Te Matarau (Māori Tech Association) examined why Māori are disproportionately represented in the tech industry and explored which factors influence greater participation, and success, of Māori tech graduates. The investigation, titled 'Te Au Hangarau – The Wave of Technology', was undertaken by Pūhoro STEM Academy. It identified that although Māori do start tech-related tertiary studies they have high rates of drop-out, and those that do graduate often don't go on to work in the industry, or if they do enter the tech workforce, they often leave within 18 months.

While there is a skills capability gap with graduates, the research concluded that industry is not well prepared for a diverse workforce. Improving access and opportunities is fundamental, as well as creating a sense of belonging and community. This will lead to a greater desire for Māori to participate and thrive in the industry.

Action pack for industry change makers

Tātaki Auckland Unlimited has created a Te Au Hangarau research insights summary and action pack for tech organisations that aspire to create diverse workplaces where Māori employees will thrive. Download the pack, adapt it to your business, and create awareness and action within your own organisation. A tech industry cultural capability programme is also being developed. [➤](#)



5. Figures here are based on broader definition of the tech sector, rather than TIN200 companies specifically. Data taken from Infometrics based on OECD definition of high and medium-high technology sectors.

6. See [Te Au Hangarau: The Wave of Technology](#)

Kaitiakitanga

Developing a tech industry that delivers a sustainable and equitable future for all

Investing in innovation, as well as social and cultural outcomes, is crucial in developing a strong and sustainable future for Auckland's tech industry. Having tech companies more engaged in their local communities, including schools, can help to attract talent from groups that are traditionally less engaged with the sector due to barriers to entry.

TIN200 companies across the region

Auckland's 112 TIN200 companies are spread across 15 local board areas⁷. Waitemātā is home to 39 of these, followed by Maungakiekie-Tāmaki (16) and Upper Harbour (15). Clustering of tech companies in these local board areas is driven by ICT and software companies, which value proximity to customers and collaboration.

South Auckland is home to five TIN200 companies, providing over 1000 jobs locally, while west Auckland is home to 11, providing over 1250 jobs in the area. It should, however, be noted that the Howick local board area merges with south Auckland and is home to New Zealand's two largest tech firms, Fisher & Paykel Healthcare and Fisher & Paykel Appliances. Located in East Tāmaki, they provide jobs for thousands of Aucklanders, many of whom live in south Auckland. This is set to increase in the future, with Fisher & Paykel Healthcare investing in a second manufacturing campus in Karaka to complement its existing East Tāmaki facility.

Employment outlook

On a smaller scale, the three TIN200 companies in Māngere-Ōtāhuhu have increased employment by 26 per cent since 2020, while the one Manurewa-based TIN200 company has grown its staff by 16 per cent over that period. Employment growth across the 11 TIN200 companies in west Auckland has been more reserved, with only around 70 new jobs since 2020.

The success and growth of companies in south and west Auckland is particularly important for our Māori and Pacific communities, with the majority of Māori (65 per cent) and Pacific peoples (75 per cent) residing in these areas⁸.

Looking even further into the future, more than one-in-six of New Zealand's babies were born in south and west Auckland in 2022⁹, and half of Auckland's.

While there are only a few Auckland-based Māori tech firms in the TIN200 currently, Straker Translations, based in Rosedale, and Emergency Q, based in Takapuna, are among the 14 Auckland-based TIN200 rising star companies in 2022. These are globally focussed companies demonstrating

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7. The six local board areas in Auckland where there are no TIN200 companies present are Franklin, Papakura, Ōrākei, Puketāpapa, Waiheke and Aotea/Great Barrier.

8. Based on 2018 Census data

9. Statistics New Zealand

sustained high growth over the last three years. Growing Māori entrepreneurship is important, as research has shown that, on average, 43 per cent of staff at Māori-owned businesses are Māori, three times the rate of non-Māori businesses¹⁰.

Investment for the present and future

Investment is key to the success and sustainability of Auckland’s tech sector. In 2022, TIN identified 71 funding deals for early-stage growth in Auckland. With a total of \$119.3 million capital raised, the Auckland and Northland regions accounted for 62 per cent of nationwide investment in early-stage tech companies.

Notably, Cleantech accounted for six of the 71 deals, third behind Healthtech (7) and Software Solutions (29), and ahead of IT Services and Support, Fintech and Electronics. Transport, another area being disrupted by green technology, accounted for five deals.

The Auckland tech sector can also support the low emissions economy through SaaS and other weightless, low-friction, and instant-transfer distribution/sales models which are highly scalable. The Digital Technologies ITP has a vision to make Aotearoa New Zealand a leader in ethical, innovative, inclusive, and sustainable digital technologies. It is a key initiative for the goal of moving New Zealand towards a high-wage, low emissions economy. Furthermore, a priority of the Advanced Manufacturing ITP is creating a leading sustainable circular net-zero emissions sector.

In the immediate term, it remains to be seen what the collapse of Silicon Valley Bank means for start-up investment in New Zealand in 2023. Reports from the US suggest that investors are pulling back as fear has risen.

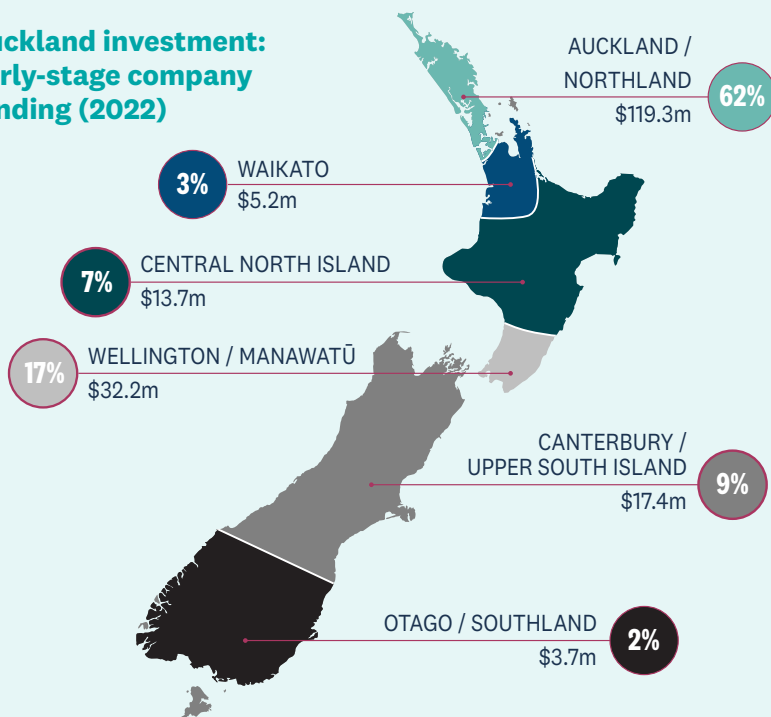
10. Te Puni Kōkiri - Te Matapaeroa 2019. Note that this figure is not specific to tech businesses.

New Zealand CleanTech Mission

Tātaki Auckland Unlimited is one of several partners behind the New Zealand CleanTech Mission, an initiative led by Callaghan Innovation, along with New Zealand Growth Capital Partners, Science for Technological Innovation National Science Challenge, Auckland UniServices, Ara Ake, NZTE and KiwiNet.

The Mission aims to boost the country’s global success in cleantech, green tech and climate tech – a wide range of high-tech businesses creating products to help solve climate change, and reduce greenhouse gas emissions and environmental damage due to pollution. Actions include developing a five-year roadmap, supercharging local and international connections, scoping initiatives to boost commercialisation and, ultimately, a targeted approach to cleantech clusters. The partnership aims to build collaboration across cleantech innovators, investors, and government to create the best possible ecosystem for cleantech in Aotearoa New Zealand, and to seize on the significant economic and environmental opportunities that these expanding sectors offer.

Auckland investment: Early-stage company funding (2022)



AKL deals by sub-sector

TIN SUB-SECTOR	DEALS
Software solutions	29
Healthtech	13
Cleantech	6
IT services and support	6
Fintech	5
Transport	5
Electronics	4
All other sub-sectors	4
Total	71

Kotahitanga

Growing Tāmaki Makaurau Auckland as a globally connected, inclusive and collaborative tech city

Auckland TIN200 company revenue is predominantly driven by demand from international markets, helping them to foster change and innovation. While export growth was slower in 2022 than in recent years, there was still strong performance in emerging markets in Asia and Latin America, among others. If recent growth rates continue, exports by Auckland TIN200 companies could grow another \$5 billion over the next five years.

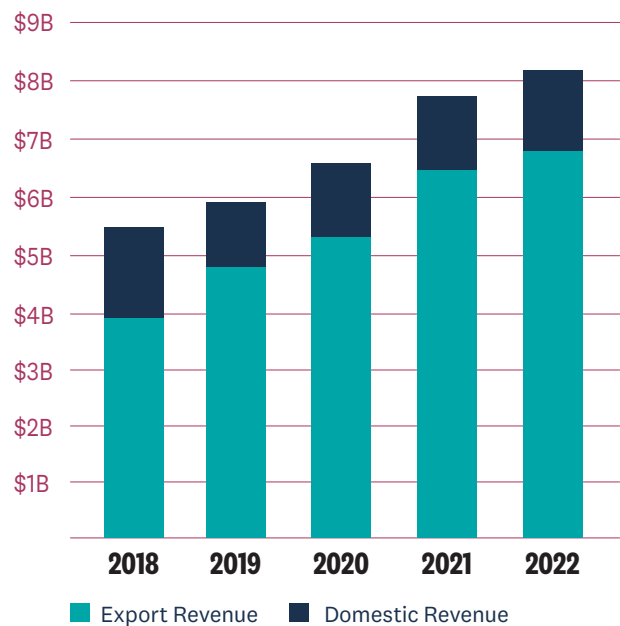
New Zealand’s tech capital on the world stage

Auckland is the centre of New Zealand’s international tech presence, accounting for 59 per cent (\$6.8 billion) of exports by TIN200 companies. In fact, **83 per cent of Auckland-based TIN200 companies’ revenue stems from outside New Zealand.** Exposure to a wide range of markets overseas underpins the resilience and success of TIN200 companies in Auckland, fostering growth, higher wages, and productivity. This exposure also has a positive effect in terms of accelerating change and innovation. Auckland TIN200 firms spent 10 cents of every dollar earned on R&D in 2022. This is important given that expenditure on R&D in New Zealand is only 1.4 per cent of GDP, half the OECD average.

Export revenue growth was slower in 2022 (4.8 per cent) compared to previous years, with the domestic revenue growth rate (10.1 per cent) outperforming most major international markets, an exception in recent years. In 2021, for example, export revenue was up 22 per cent, while domestic revenue only grew 1.5 per cent. Even in 2020, a year heavily disrupted by the outbreak of the COVID-19 pandemic, export revenue grew slightly more (0.1 per cent) than domestic revenue.

The five-year compound growth rate (CAGR) for export revenue is a healthy 11.7 per cent. Should this continue, Auckland TIN200 companies’ export revenue could reach \$11.8 billion in 2027, an increase of \$5 billion.

Auckland TIN200 company revenue: 2018-2022



Key International Markets



Total Auckland export figures

2022 Sales (\$000)	Growth %	Growth (\$000)	Overseas Staff
\$6,777,203	4.8%	\$312,373	15,798

2022 growth

Asia	17.9%
North America	4.5%
Latin America	8.6%
New Zealand	10.1%
Australia	8.2%
Rest of World	9.5%
Europe	-8.3%

Opportunities for further growth

Looking forward, Tāmaki Makaurau Auckland's tech sector is supported by the presence and construction of new cloud data centres in the region.

Alongside a competitive lift in latency and international connectivity, these centres have important payoffs in terms of data sovereignty, reliability, job specialisation and job creation. Furthermore, while the speed and uptake of New Zealand's open-banking rollout is dependent on several factors, its implementation will undoubtedly be centred on Auckland as New Zealand's fintech hub.

Auckland's TIN200 companies summary

Auckland's TIN200 companies contribute significantly to Tāmaki Makaurau's tech industry, regional economic growth, and local employment. While the industry provides well-paid and highly productive jobs, challenges exist related to diversity, with an underrepresentation of Māori, Pacific peoples and women. There are many benefits to be gained by fostering the skills, creativity, and innovation of a more diverse workforce. In this context, while Auckland's 112 TIN200 companies are spread across 15 local board areas, the success and growth of companies in south and west Auckland is particularly important for our Māori and Pacific communities.

Export growth and investment are also vital to the future success of our TIN200 companies and the wider tech industry. Auckland is at the centre of New Zealand's international tech presence, accounting for 59 per cent of New Zealand TIN200 company exports. Overall, 83 per cent of Auckland-based TIN200 companies' revenue stems from outside New Zealand, with growth in 2022 driven by the Asian market. Investment and growth in areas such as Cleantech, SaaS, and other weightless services can also support the low emissions economy. A greater connect between local innovators, international investors, and multinational corporations is important here.

What can you do?

Want to stay up to date with the latest actions underway to support Auckland's tech industry?

Sign up to the Tech Tāmaki Makaurau newsletter to stay informed of Tātaki Auckland Unlimited's three-year programme of action to accelerate Auckland's tech industry. Access tools, resources, and events to support your tech business and find out how you can get involved in supporting actions that create jobs and attract talent and investment into the region. [➤](#)



For more information contact:

Scott Jobson

Economic Intelligence Manager

Investment and Industry

Email:

scott.jobson@aucklandnz.com

tin100@tinetwork.com

aucklandunlimited.com

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Tātaki
Auckland
Unlimited 

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