NEW ZEALAND HealthTech Insights Report

2020

CMDT | TIN

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MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

The Ministry of Business, Innovation and Employment (MBIE) is the Government's lead business-facing agency. Its contribution to improving the well-being of New Zealanders is summarised in its stated purpose: to grow New Zealand for all.

Auckland Tourism, Events and Economic Development
An Auckland Council Organisation
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ATEED is Auckland Council's economic development agency, tasked with promoting and advocating for Auckland nationally and globally as a place to work, invest, study and visit, and ultimately helping the region thrive and succeed.

medical technology
ASSOCIATION OF NEW ZEALAND

MTANZ is the leading industry body representing medical technology manufacturers, importers, exporters and distributors of medical devices in New Zealand, working to increase national awareness of the medical technology industry, and the value it offers to people requiring medical treatment, the economy and society.

NEW ZEALAND
TRADE & ENTERPRISE
Te Taurapa Tūhono

New Zealand Trade and Enterprise (NZTE) is the Government agency charged with attracting smart investment to New Zealand and works towards one single purpose: growing companies internationally, bigger, better, and faster, for the good of New Zealand.

cure kids ventures

As a predominant investor in New Zealand's seed and early stage healthcare and biotech sector, CKV's portfolio includes companies with products and services covering medical devices, medications, diagnostics, health information, and healthcare delivery systems.

Fisher & Paykel HEALTHCARE

Fisher & Paykel Healthcare is a leading designer, manufacturer and marketer of products and systems for use in respiratory care, acute care, surgery and the treatment of obstructive sleep apnea. The company's products are sold in over 120 countries worldwide.

HiNZ
Health Informatics New Zealand
New Zealand's meeting place for digital health

HINZ is a not-for-profit organisation supporting the field of health informatics, with a focus on events and professional development. Its annual conference is the largest digital health event in New Zealand with an extensive archive of expert presentations on digital health.

NZHIT
Enabling a Healthier New Zealand

NZHIT is a not-for-profit, incorporated society which has grown to become the peak body for the New Zealand digital health industry, providing a coordinated, informed voice that maximises social and economic value for New Zealand through digital technology.

WELCOME TO THE 2020 NZ HEALTHTECH INSIGHTS REPORT – A COLLABORATIVE PIECE OF RESEARCH DEVELOPED JOINTLY BY TECHNOLOGY INVESTMENT NETWORK (TIN) AND THE CONSORTIUM FOR MEDICAL DEVICE TECHNOLOGIES (CMDT).

The need for this report arose out of conversations that took place between key voices in New Zealand's healthcare industry over the last few years, who agreed that there was no single shared overview of the NZ HealthTech sector that illustrated its potential for economic growth and social contribution. With this report, we are hoping to change that.

Those readers familiar with the annual TIN Report, which tracks the success of the top 200 technology exporting companies in New Zealand, will know that the TIN200 companies succeed because they have global ambition – providing inspiration and examples for others to follow. As the largest of the market sectors that TIN tracks, healthcare technology – or 'HealthTech' as we will call it in this report – is a prime example of this.

One thing that should be immediately clear from the sheer size of this report, is that HealthTech is already big business in New Zealand. While it may not enjoy the traditional associations with New Zealand that agriculture or tourism do, HealthTech boasts one of the longest histories of any business sector, as well as several globally recognised innovators who developed healthcare technology products locally that are now ubiquitous the world over.

New Zealand's capacity to create large, successful HealthTech companies that do significant business internationally has already been proven. As you'll see from the data and case studies in the following pages, the healthcare sector is a high growth industry, with high spending on R&D, while also being highly profitable. And while the sector is anchored by large companies such as Fisher & Paykel Healthcare, Orion Health, and Douglas Pharmaceuticals, there is an ever growing number of vibrant start-ups that are avidly seeking funding and opportunities to scale.

It's companies like these that will be needed to form the future backbone for this industry and become the 'unicorn' companies that will ensure the long-term sustainability of the sector. However, New Zealand's startup HealthTech companies currently lack visibility, which becomes a challenge for raising investment.

For this reason, we are unashamedly open about the ambitions for this report. We want it to illustrate the critical mass that is growing in this industry, tell the stories of some key players, including new arrivals and connections into our research community, and through this build a better and wider understanding of the industry itself. In doing so, we hope to drive new national and international partnerships for New Zealand's burgeoning HealthTech sector by attracting research partnerships into our universities, and investment in the companies that are part of it.

If the global health challenges presented in the last year alone are anything to go by, it's clear that people are hungry for solutions to big health problems. This means the opportunities are prolific for NZ HealthTech companies, but require the right talent and the kinds of investors who specialise in this area. What's encouraging is that we know New Zealand is good at HealthTech. By necessity, we grow multidisciplinary development teams that can do more with less to solve complex problems. And therein lies the opportunity – for companies, for research partners, for investors, for New Zealand.

Our warmest thanks to all of our sponsors and the HealthTech companies of New Zealand for your commitment and patience in joining us on this journey to deliver this report. We commend the 2020 New Zealand HealthTech Insights Report to you, and look forward to seeing what the future will bring for those who feature in it.

GREG SHANAHAN
Managing Director,
Technology Investment Network

TIN

DIANA SIEW
Co-founder,
Consortium for Medical Device Technologies

CMDT

Welcome

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RT HON. **Jacinda Ardern**

"NEW ZEALAND'S PLACE AT THE EDGE OF THE WORLD HAS BRED A UNIQUE WAY OF LOOKING AT CHALLENGES. WE STRETCH OURSELVES, GO BEYOND THE ACCEPTED WISDOM AND FOLLOW GOOD IDEAS WHEREVER THEY LEAD, AND OFTEN WE END UP LEADING THE WORLD.

Isolation has driven us to become innovators, and we've had to be creative, practical, and ready to challenge convention. We're carrying that approach forward in today's connected world. The search for innovation, particularly in technology, never stops.

We are committed to the wellbeing of all New Zealanders by supporting our export economy and it's great to see our technology companies playing a key role in this. I want to congratulate everyone helping put New Zealand at the cutting edge of technology and shaping our nation's story of innovation."

RT HON. JACINDA ARDERN,
Prime Minister of New Zealand
(TIN Report Launch, 31 October 2019)

HON. **David Parker**

"I REALLY DO VALUE THE CONTRIBUTION THAT OUR TECHNOLOGY SECTOR MAKES TO NEW ZEALAND. WE KNOW THAT LOCALLY DESIGNED TECHNOLOGY IS ENHANCING NEW ZEALAND'S REPUTATION AROUND THE WORLD, AND THAT'S A GREAT THING.

The confluence of new technologies – from affordable computing power to robotics, sensors, IoT, machine learning, genetics, big data and AI – is challenging to countries as they address their consequences on the future of work. We have to deal with the challenges, but they also measure the size of the opportunity.

It is the duty of all of us to make sure that we have the settings right to try and maximise our share of those particular opportunities in the world."

HON. DAVID PARKER,
Minister for Trade & Export Growth
(TIN Report Launch, 31 October 2019)

Data Source and Key Terms

The data under analysis in this inaugural HealthTech Insights Report focuses on the companies in the TIN200 that are categorised under the 'Healthcare' secondary sector in the 2019 TIN Report. (For the purposes of this report, 'Healthcare technology' companies are referred to collectively by the shortened name 'healthtech'.)

Published annually, the purpose of the TIN Report is to quantify the economic significance of New Zealand's globally focused technology industry by capturing key data on the country's top 200 high-tech exporting companies, known as the TIN200.

Inclusion Criteria

To qualify for inclusion in the TIN200, companies must:

1. Originate in New Zealand*
2. Retain a meaningful presence in New Zealand
3. Operate in the High-tech Manufacturing, ICT, or Biotech sectors**
4. Have developed their own technology-based intellectual property
5. Generate at least 10% of their revenues offshore.

*Foreign acquired companies are included in the report only where they meet the above criteria, are not subsumed within the parent company, and still provide their own financial data.

**For the purposes of this report, the descriptive names of TIN's primary sectors have been changed to align with terms associated with their usage with the HealthTech sector, specifically:

- The **'High-tech Manufacturing'** sector is referred to as **'Devices'**
- The **'ICT'** sector is referred to as **'Digital Health & Health IT'**
- The **'Biotech'** sector is referred to as **'Diagnostics & Therapeutics'.** This includes pharmaceuticals.

Data Source

The Survey Tool

In 2019, TIN directly requested data from approximately 1,000 companies. Data captured includes revenue and EBITDA[i], expenditure details, best business decisions, employee numbers, sales and company ownership. Data is aggregated and trended to create an in-depth profile of the high-tech sector and its performance. Certain information is published in the TIN Report for each company[ii], while the rest[iii] is reported in aggregate to protect commercial sensitivities.

Data Collection

TIN maintains a database of technology companies in New Zealand, which is added to and updated on an ongoing basis. Annually, companies on this database are asked to submit key information in an online survey. In addition, TIN collects data from primary and secondary sources including business media, our sponsors, and industry groups. Where surveys are not returned or are incomplete, publicly available figures are used. If none are available, revenue is estimated[iv] based on staff numbers, revenue per employee ratios from comparable companies, and data supplied in previous years. Once the data gathering phase is complete, all companies are electronically sent a pre-publication check to ensure data accuracy. All companies are asked to confirm the information that is recorded, or to supply adjusted data.

In the analysis of company data, a number of aggregations are carried out. Primary and secondary sector analysis for relative performance of industries, high growth companies, region and ownership structure, helps facilitate commentary around particular areas of growth.

Key Terms

TIN – Technology Investment Network.

TIN100 – The top 100 companies (1-100) ranked by revenue.

TIN's Next100 – The next 100 companies (101-200) ranked by revenue.

TIN200 – The combined TIN100 and Next100 (1-200) companies ranked by revenue.

EBITDA – Earnings before Interest, Tax, Depreciation, and Amortisation. It is an approximate measure of a company's operating cash flow.

CAGR – Compound Annual Growth Rate. It is the mean annual growth rate over a specified number of growth periods longer than one year.

Investment-backed Private companies are firms that have received investment from Venture Capital, Private Equity and/or organised angel investor groups.

Foreign-owned companies are firms that have 100% foreign-ownership.

Research Limitations

Not all companies included in this report chose to participate. Companies may choose to keep their revenue confidential during a commercially sensitive phase. TIN's reports provide an industry overview of New Zealand's top 200 export-focused high-tech companies, and do not exclude non-participants. Instead, an estimated revenue figure is published and overall analysis is carried out using that estimate. TIN considers all information to be correct at the time of printing and accepts no liability for factual errors. All companies mentioned in the TIN publications may contact TIN to amend any incorrect information.

Limitation of continuity: As the companies in the TIN200 rankings vary each year, the historical data in this report only pertains to the 2019 companies, unless otherwise stated.

New Zealand Equivalents to International Financial Reporting Standards (NZ IFRS): Effective for reporting periods from 1 January 2019, IFRS 15 is a new accounting standard that introduces the inclusion of useful information related to revenues and cash flows. This will change how a significant number of TIN companies recognise revenue going forward. Within the TIN companies, some have adopted this standard within FY19 reporting, whilst others will adopt this standard from FY20. This change limits historic comparisons of the data and, where relevant, is noted in the text.

i. Financial year ends for the current report are almost exclusively: December 2018; March 2019; and June 2019. ii. Contact details, ownership structure, key products, highlights, and total revenue. Ownership is current to 31 August 2019. iii. Expenses, research and development activities, company issues, sales and employee numbers by region. iv. As indicated by an * in the company rankings and profile lists.

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The New Zealand HealthTech Sector Overview

PHOTO CREDIT: Matt Crawford & Auckland Bioengineering Institute.

Kiwi HealthTech
Innovation Heritage Timeline

THEN

1873

JOSEPH NATHAN forms "Glaxo"– later GSK.

1917

SIR HAROLD GILLIES, skin graft pioneer.

1962

MAURICE WILKINS awarded Nobel Prize for his contributions in DNA discovery.

1966

COLIN MURDOCH invents disposable syringe.

1993

IAN MCCRAE founds Orion Health.

2009

INDUSTRIAL RESEARCH LIMITED and **STICKMEN STUDIOS** launch games in the health space.

R-L: Wil McLellan (CEO Stickmen Studios) and Marcus King (IRL).

NOW

Douglas Pharmaceuticals
AFT Pharmaceuticals
New Zealand Pharmaceuticals

Enztec
Ossis
Aroa Biosurgery

Sir Richard Faull
Centre for Brain Research

Distinguished Professor Peter Hunter
Auckland Bioengineering Institute

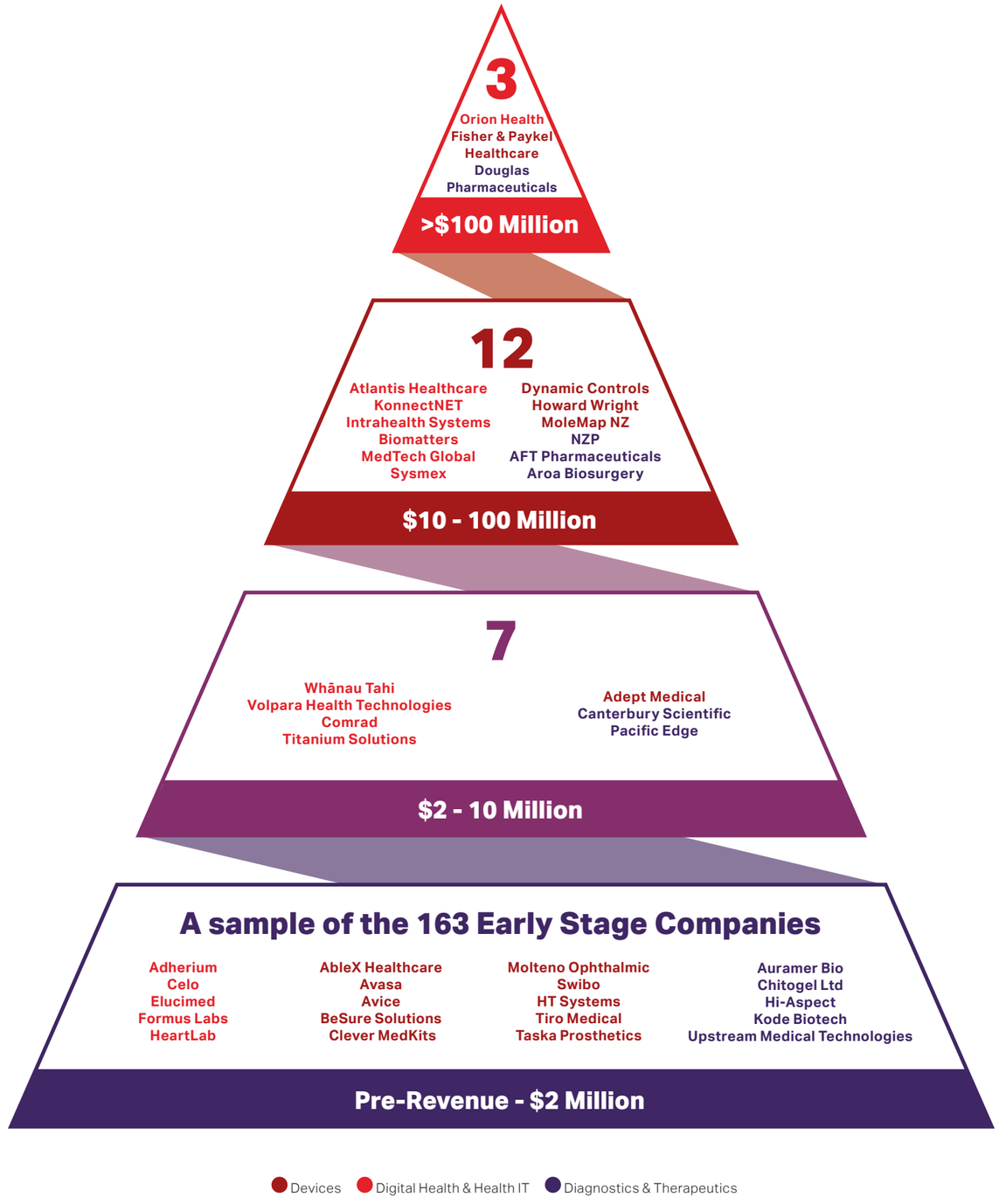
Professor Parry Guilford
Centre for Translational Cancer Research and co-founder of Pacific Edge Biotechnology

Fisher & Paykel Healthcare
MARS Bioimaging
ARANZ Medical
The Insides Company
(formerly Surgical Design Studio)

Atlantis Healthcare
Whānau Tahi
Celo
EmergencyQ

SPARX
AbleX Healthcare
Virtual Medical Coaching
MTech Games

The NZ HealthTech Sector
The Big Picture



Summary of TIN200
HealthTech Companies

HEALTHTECH IS THE LARGEST SECONDARY SECTOR IN THE TIN REPORT, GENERATING $1.9B IN REVENUE AND BOASTING A FIVE YEAR CAGR OF 9.1%.

Of the 200 companies in the 2019 TIN Report, 22 (or 11%) are HealthTech firms, yet they generate 15.4% of the TIN200 revenue, which clearly shows the size and significance of the HealthTech sector in New Zealand.

Number of TIN200 HealthTech Companies

22

11.0% of TIN200 Companies

Total HealthTech Revenue

$1.9B

15.4% of TIN200 Revenue

HealthTech Revenue Growth

$92m

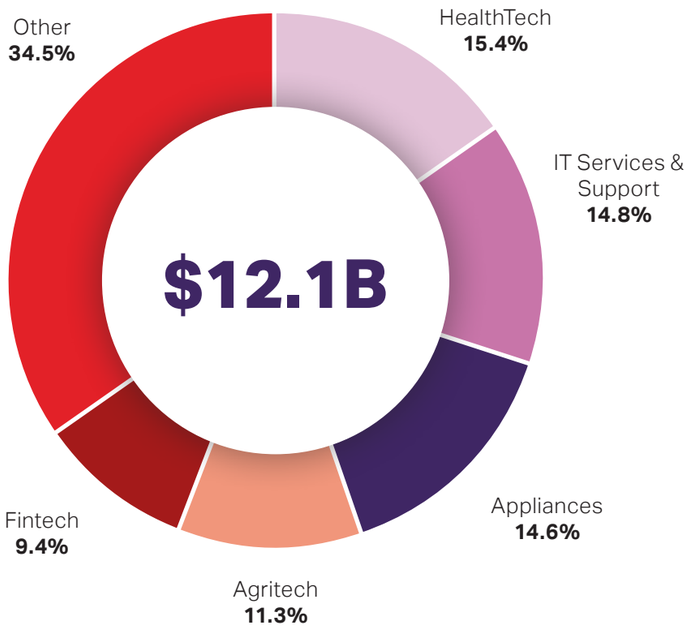
8.2% of TIN200 Growth

HealthTech 5-Year CAGR

9.1%

8.9% TIN200 5-Year CAGR

% of TIN200 Revenue



TIN200 Revenue and Growth by Secondary Sector

	REVENUE ($000)	GROWTH ($000)	% SHARE OF TIN200 REVENUE	%SHARE OF TIN200 GROWTH
HealthTech	$1,871,658	$92,255	15.4%	8.2%
IT Services and Support	$1,792,596	$190,998	14.8%	17.1%
Appliances	$1,772,069	$90,563	14.6%	8.1%
Agritech	$1,374,092	$30,925	11.3%	2.8%
Fintech	$1,134,441	$240,668	9.4%	21.5%
Operational Support	$850,717	$119,622	7.0%	10.7%
Electronics	$742,260	$43,667	6.1%	3.9%
Digital Media	$727,891	$93,468	6.0%	8.3%
Software Solutions	$640,857	$110,298	5.3%	9.8%
Heavy Manufacturing	$597,910	$63,247	4.9%	5.6%
Communication Solutions	$347,504	$20,787	2.9%	1.9%
Navigation Products	$273,595	$23,671	2.3%	2.1%
TOTAL	**$12,125,589**	**$1,120,168**	**100.0%**	**100.0%**

HealthTech High Growth
Companies Overview

DEVICE COMPANIES, FISHER & PAYKEL HEALTHCARE IN PARTICULAR, GENERATE AROUND TWO THIRDS OF THE SECTOR'S REVENUE. THE SECTOR EMPLOYS OVER 7,500 PEOPLE.

The sector grew more slowly this year at 5.2%, largely as a result of changes at Orion Health, which saw part of the business acquired by UK-based HG Capital. Excluding Orion Health, 2019 saw the remainder of the sector grow by 9.0% in line with the 5-year CAGR.

Fisher & Paykel Healthcare, as the largest company in the sector, became one of only three TIN200 companies to reach the $1B revenue mark. In addition to Fisher & Paykel Healthcare and Orion Health, the sector is anchored by a number of larger, mature companies including Douglas Pharmaceuticals, New Zealand Pharmaceuticals, and Dynamic Controls, which support a constantly growing and highly skilled workforce.

Employ

7,636

people, globally

Revenue invested in wages and salary

34.7%

Similar to the 34.9% spent by TIN200 companies

Average sector wage

$85,000

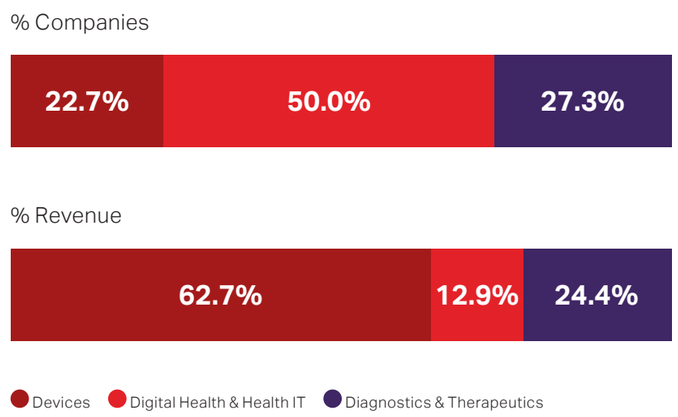
that's more than 40% higher than the New Zealand average

R&D spend

$226m

that's 12.1% of revenue, higher than the 11.1% spent by TIN200 companies

Revenue Share and Number of Companies by Category

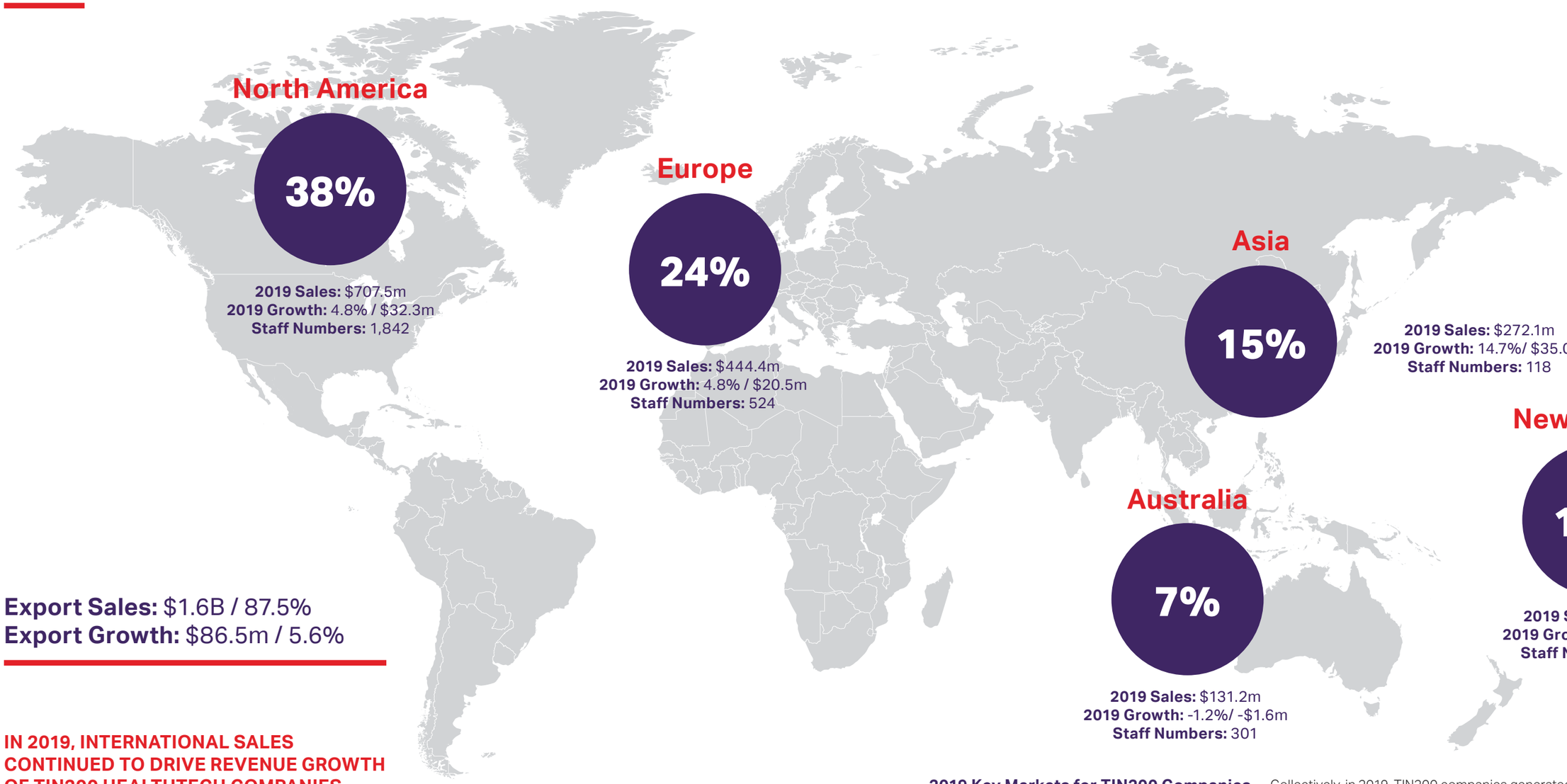


The sector welcomed three new entrants in 2019 with Aroa Biosurgery entering directly into the TIN100, following growth of 117.9%. Titanium Solutions and Adept Medical also joined the TIN200 group for the first time.

The sector continues to generate international interest. In addition to the Orion Health purchase, Biomatters was sold to US based GraphPad following growth of 42.0% and Volpara Health Technologies purchased US based MRS Systems, which saw their revenue grow by 77.9%.

HealthTech firms collectively invested $226m in R&D in 2019 or 12.1% of revenue, highlighting their focus on innovation. In addition to the TIN200 companies there is a sizeable pipeline of companies that have been founded on deep innovation. This is a result of a growing specialisation in HealthTech, which is being supported by a highly evolved and collaborative eco-system that brings together academics, funding, infrastructure, talent, and business to create a perfect environment in which HealthTech start-ups can thrive.

2019 Key Markets
for HealthTech Companies



Export Sales: $1.6B / 87.5%
Export Growth: $86.5m / 5.6%

IN 2019, INTERNATIONAL SALES CONTINUED TO DRIVE REVENUE GROWTH OF TIN200 HEALTHTECH COMPANIES, WITH GLOBAL EXPORT SALES ACCOUNTING FOR $1.6B OR 87.5% OF REVENUE.

This is relatively high compared to the 71.5% of revenue that was generated offshore by all TIN200 companies. North America is the largest offshore market for HealthTech companies, accounting for 37.8% of sales, followed by Europe which contributes 23.7%.

Exports grew by 5.6% ($86.5m) with Asia becoming the fastest growing export market for New Zealand HealthTech firms. The Asian and North American markets both grew in excess of $30m in 2019, whilst Europe grew by $20.5m. These results are largely a reflection of the strength of Fisher & Paykel Healthcare, which generates 99% of its revenue outside of New Zealand, and Douglas Pharmaceuticals, another key exporter.

Together these companies – along with other agencies such as NZTE with their 43 offices worldwide – help pave the way for New Zealand companies to both enter and execute effectively in the Asian, European, and North American markets.

2019 Key Markets for TIN200 Companies

	REVENUE (%)	GROWTH (%)
New Zealand	28.5%	7.4%
Australia	25.7%	9.7%
North America	22.6%	9.7%
Europe	12.1%	18.5%
Asia	7.4%	10.9%
Rest of the World	3.7%	11.4%
TOTAL	**100%**	**11.3%**

Collectively, in 2019, TIN200 companies generated 71.5% of their revenue offshore while the HealthTech firms generated 87.5% of their revenue offshore. Relative to the TIN200, HealthTech firms have a very strong export focus on North America, Europe, and Asia. HealthTech companies generated 38% of their revenue in North America compared with 23% for TIN200 companies. The equivalent figures for Europe are 24%, compared with 12% for TIN200 companies, and 13% for Asia, compared with 7% for TIN200 companies.

One of the most significant differences is the use of Australia as a stepping stone to further global exporting. In 2019, TIN200 companies generated 26% of revenue there, while HealthTech firms generated only 9.7% of their revenue in Australia. This is likely a reflection of the maturity of the companies in the HealthTech sector, as well as an indication of the general global focus of HealthTech firms.

Key Insights into the **TIN200's HealthTech Companies**

The NZ HealthTech sector is showing steady growth

The New Zealand HealthTech sector continues to be the largest of the secondary sectors monitored across the TIN200 with revenues of $1.9B and sustained revenue growth with a 5-Year CAGR of 9.1%. HealthTech jobs have risen by over 1,000 in the past four years to 7,636 staff, while the average wage is $85,000 per annum, more than 40% higher than the NZ average.

Exports are driving HealthTech success

HealthTech is a high export-based business with 87.5% of revenue for the TIN200 HealthTech companies coming from outside New Zealand. Export growth for the sector was at 5.6% in 2019, up $86.5m on the previous year, but this was about half that of the overall TIN200 export growth figure of 11.3%. Typically, New Zealand HealthTech startups are focused on export markets from day one, as these provide the greatest potential for scaling.

Devices lead the way, but other sector categories are expanding

Medical devices make up the bulk of the HealthTech sector exports due to the dominance of Fisher & Paykel Healthcare. However, pharmaceutical companies such as Douglas Pharmaceuticals and AFT Pharmaceuticals are expanding the share of the Therapeutics & Diagnostics category with strong growth in the US and Australian markets in particular, while companies like Biomatters and Volpara Health Technologies are also making significant headway on exports in Digital Health & Health IT.

Science-based product leadership is driving the sector

HealthTech companies in NZ are driven by science-based product leadership and therefore spend $226m per annum on R&D representing 12% of their combined revenues. Because of this, companies have the potential to be highly profitable if they are able to carve out a leadership position in their respective markets.

Investment opportunities abound, but challenges persist

While there are just 22 HealthTech companies with over $3.6m annual revenue – the threshold required for inclusion in the TIN200 – a further 163 companies are providing a rich pipeline of early stage innovation and investment opportunity. However, key challenges remain, including the gestation time for deep tech companies, regulatory compliance lead times for healthcare/public sector purchase decisions and limited local and international investment interest.

HealthTech investment requires longer incubation

There is naturally an extended incubation period required for life science companies due to the multiple levels of uncertainty and cost that come with creating new health technologies (eg. clinical trials), which don't exist to the same degree in other markets. This can often be a disincentive for potential investors in HealthTech, who may want a faster ROI. Consequently, investment in New Zealand HealthTech companies is dominated by early stage angel groups.

More needs doing to address growth acceleration

The ongoing challenge for the HealthTech sector is to learn to address the impediments to growth to enable expansion quickly and internationally, and so attract the scale of investment that would justify the opportunity available. More companies moving into the $100m+ strata of the HealthTech sector are needed to ensure long-term industry sustainability.

MOVING NZ HEALTHTECH UP THE VALUE CHAIN

How hard is it to make a successful HealthTech company in New Zealand? Greg Shanahan (TIN) explains:

"Probably the single biggest issue is the lack of local appetite for investment in deep technology because of the technical risk, so our companies need to be very specific about what kind of investors they are looking for. Often those investors are ones with a positive bias and patience in terms of product development. The availability of data and the reduction in cost of things like rapid prototyping, testing and trials is more of a pathway now than it used to be, as there are now more resources and funding available internationally.

Consider Douglas Pharmaceuticals. They are an example of a company moving up the value chain, starting with generic products and using the expertise developed to move into repurposing molecules. There is now a growing stable of companies that are looking to follow in those footsteps and move up the value chain by finding new solutions for serious problems. In each sector category you see a cluster of companies following behind the big players who have built us expertise over many years, and that expertise is rapidly being spread between companies.

There are easier ways to make money, but there is a growing number of people with the passion and commitment needed to do it."

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In-Depth: The Companies

PHOTO CREDIT: Matt Crawford & Auckland Bioengineering Institute.

TIN200 HealthTech
Companies 2019

2019 HEALTHTECH RANKING	COMPANY	DESCRIPTION	CATEGORY	2019 TIN RANKING	2019 REVENUE ($000s)	2018 REVENUE ($000s)	REVENUE GROWTH (%)	2019 CUMULATIVE REVENUE ($000s)	2019 CUMULATIVE REVENUE (%)	OWNERSHIP	STAFF EMPLOYED	PHYSICAL CITY	WEBSITE
TIN100 Companies													
1	**Fisher & Paykel Healthcare**	Medical device manufacture and sales.	Devices	3	$1,070,000	$981,000	9.1%	$1,070,000	57.2%	Public	4547	Auckland	**www.fphcare.com**
2	**Douglas Pharmaceuticals**	Development and manufacture of generic pharmaceuticals.	Diagnostics & Therapeutics	7	$236,800	$225,800	4.9%	$1,306,800	69.8%	Private	755	Auckland	**www.douglas.co.nz**
3	**Orion Health**	Clinical workflow and health sector technology.	Digital Health & Health IT	20	$117,300	$170,000	-31.0%	$1,424,100	76.1%	Private	685	Auckland	**www.orionhealth.com**
4	**New Zealand Pharmaceuticals**	Pharmaceuticals manufacturer.	Diagnostics & Therapeutics	30	$97,358	$88,000	10.6%	$1,521,458	81.3%	Investment-backed Private	156	Palmerston North	**www.nzp.co.nz**
5	**AFT Pharmaceuticals**	Manufacturer of pharmaceutical intermediate and diagnostic products.	Diagnostics & Therapeutics	33	$85,100	$81,900	3.9%	$1,606,558	85.8%	Public	83	Auckland	**www.aftpharm.com**
6	**Dynamic Controls**	Electronic controls for power wheelchair and mobility scooters.	Devices	38	$75,315	$67,959	10.8%	$1,681,873	89.9%	Foreign Owned	297	Christchurch	**www.dynamiccontrols.com**
7	**Atlantis Healthcare**	Adherence programmes for medical treatment.	Digital Health & Health IT	88	$26,617	$26,617	0.0%	$1,708,490	91.3%	Foreign Owned	200	Auckland	**www.atlantishealthcare.com**
8	**Aroa Biosurgery**	Manufacturer of regenerative tissue substitutes.	Diagnostics & Therapeutics	95	$24,189	$11,099	117.9%	$1,732,680	92.6%	Investment-backed Private	110	Auckland	**www.aroabio.com**
Next100 Companies													
9	**MedTech Global**	Health technology software developer.	Digital Health & Health IT	101	$22,059	$23,267	-5.2%	$1,754,739	93.8%	Private	65	Auckland	**www.medtechglobal.com**
10	**Konnect NET**	Software and services to streamline interactions between the insurance and healthcare sectors.	Digital Health & Health IT	124=	$15,000	$15,000	0.0%	$1,769,739	94.6%	Foreign Owned	33	Auckland	**www.konnectnet.com**
11	**Howard Wright**	Medical beds and stretchers.	Devices	129=	$14,500	$13,066	11.0%	$1,784,239	95.3%	Private	50	New Plymouth	**www.howardwrightcares.com**
12	**Intrahealth Systems**	Case management software for outpatient care.	Digital Health & Health IT	142	$11,916	$10,300	15.7%	$1,796,155	96.0%	Private	90	Auckland	**www.intrahealth.com**
13	**Sysmex**	Software for pathology laboratories.	Digital Health & Health IT	148	$10,462	$9,459	10.6%	$1,806,617	96.5%	Foreign Owned	56	Auckland	**www.sysmex.co.nz**
14	**MoleMap NZ**	Skin cancer screening through digital melanogramming.	Devices	149	$10,326	$9,256	11.6%	$1,816,942	97.1%	Investment-backed Private	70	Auckland	**www.molemap.co.nz**
15	**Biomatters**	Bioinformatics software for molecular biology and genomics.	Digital Health & Health IT	150	$10,294	$7,250	42.0%	$1,827,236	97.6%	Foreign Owned	65	Auckland	**www.geneious.com**
16	**COMRAD Medical Systems**	Software solutions for the private and public radiology market.	Digital Health & Health IT	156	$9,600	$8,800	9.1%	$1,836,836	98.1%	Private	57	Christchurch	**www.comrad.co.nz**
17	**Canterbury Scientific**	Manufacture of liquid and freeze-dried controls for haematology and biochemistry diagnostic tests.	Diagnostics & Therapeutics	166	$8,590	$8,359	2.8%	$1,845,426	98.6%	Private	23	Christchurch	**www.canterburyscientific.com**
18	**Whānau Tahi**	Connected healthcare solutions.	Digital Health & Health IT	168	$8,315	$8,460	-1.7%	$1,853,741	99.0%	Private	32	Auckland	**www.whanautahi.com**
19	**Titanium Solutions**	Sophisticated dental software solutions.	Digital Health & Health IT	188=	$5,000	$3,800	31.6%	$1,858,741	99.3%	Private	33	Auckland	**www.titanium.solutions**
20	**Volpara Health Technologies**	Software for the detection of breast cancer.	Digital Health & Health IT	188=	$5,000	$2,810	77.9%	$1,863,741	99.6%	Public	160	Wellington	**www.volparasolutions.com**
21	**Adept Medical**	Specialist medical plastics and composites manufacturer.	Devices	195	$4,100	$3,800	7.9%	$1,867,841	99.8%	Private	11	Auckland	**www.adeptmedical.co.nz**
22	**Pacific Edge**	Cancer diagnostics.	Diagnostics & Therapeutics	198	$3,817	$3,400	12.3%	$1,871,658	100%	Public	58	Dunedin	**www.pacificedgedx.com**

Revenue Growth of **TIN200 HealthTech Companies 2019**

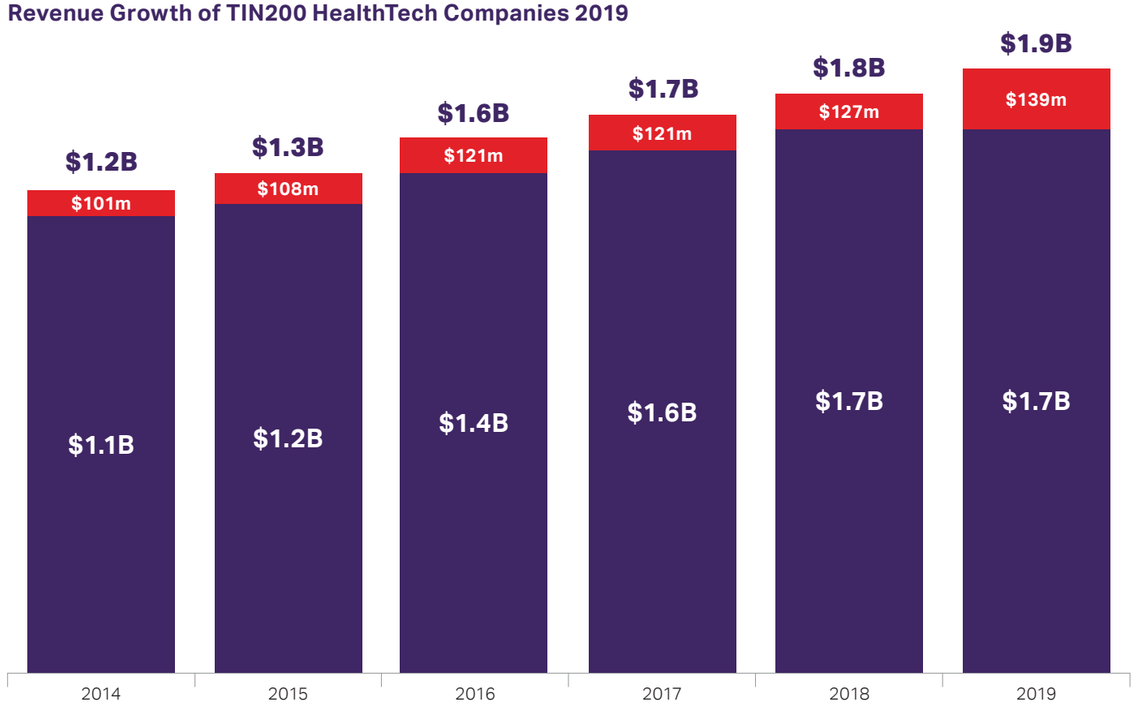
THE HEALTHTECH SECTOR HAS SHOWN SUSTAINED, SOLID REVENUE GROWTH OVER THE LAST FIVE YEARS IN NEW ZEALAND, ACHIEVING A 5-YEAR CAGR OF 9.1%.

The eight HealthTech companies in the top 100 TIN rankings achieved a 5-year CAGR of 9.3%. This established group of companies has been effective at managing their growth for profitability achieving an EBITDA of 19.7% in 2019, slightly ahead of the TIN200 average of 12.5%.

2019 was a year of milestones amongst this group with Fisher & Paykel Healthcare reaching the $1B revenue mark, sitting as one of only three TIN200 companies to accomplish this feat. Aroa Biosurgery joined the TIN100 for the first time following outstanding growth of 117.9%.

The Next100 HealthTech companies grew by 9.4% in 2019, surpassing the previous year's growth rate of 5.1% and outpacing the group's 5-year CAGR of 6.7%, indicating growth is accelerating amongst this group and their outlook is positive. Other strong performances in the Next100 were Titanium Solutions and Volpara Health Technologies, which both had growth rates in excess of 30%, while Howard Wright and Pacific Edge had growth rates in excess of 10%.

Revenue Growth of TIN200 HealthTech Companies 2019



Revenue Growth of **TIN200 HealthTech Companies by Category**

Devices

Fisher & Paykel Healthcare spearheads this group, and is surrounded by a strong network of other device manufacturers and designers, with all except one growing in excess of 10% in 2019. The strength of this sector cannot be understated, with the emergence of a number of promising, innovative early stage devices companies including OssAbility, The Insides Company, Ossis, and Veriphi to name just a few. In addition to these there are a number of companies just outside the TIN200 with novel products, such as Enztec, MARS Bioimaging, and Taska Prosthetics. The last 10 – 15 years has also seen the establishment of the Bioengineering Institute at Auckland University, Consortium for Medical Device Technologies, and groups like Canterbury Health Innovation. Collectively, these entities are driving device development in New Zealand to new levels through the provision of highly skilled talent and networks.

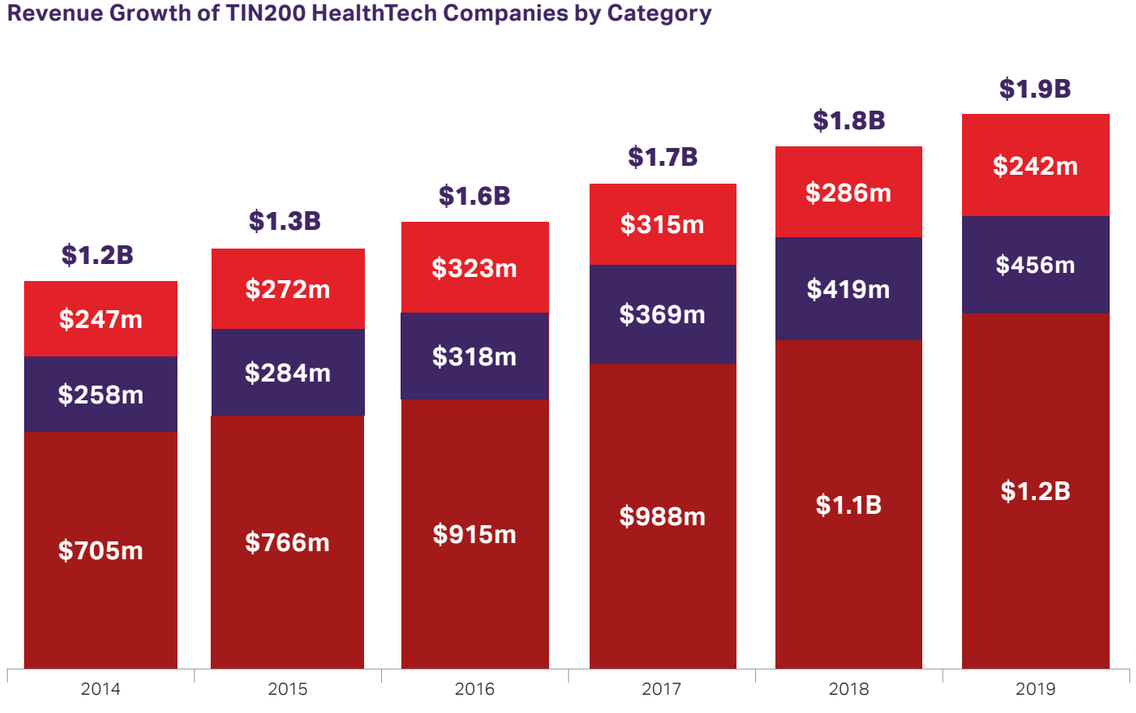
Digital Health & Health IT

As seen in the TIN Report, the Digital Health & Health IT sector is transforming the look of the HealthTech sector, with half of the companies falling into this category. Orion Health dominates this group in terms of revenue generation, but is joined by a range of highly innovative firms including Whānau Tahi, which is understood to be the world's first healthcare management system founded on a culture-centric model. This category also has the most number of foreign owned companies, an indication of the international attention it enjoys. Orion Health and Biomatter's recent sales to UK and US-based firms are further evidence of international interest.

Diagnostics & Therapeutics

Diagnostics & Therapeutics accounts for around a quarter of the revenue generated in the sector. It is anchored by a core of pharmaceutical companies, but also includes the rapidly growing Aroa Biosurgery and established Pacific Edge. Collectively, the group grew by 8.9% in 2019, slightly behind its 5-year CAGR of 12.1%, despite strong export growth of 10.1%, and achieving an EBITDA of 9.3% in 2019. There are a number of emerging companies in this sector that have attracted investment from the Angel and/or VC community, including Avalia Immunotherapies, Chitogel Ltd, NZeno, and Kode Biotech.

Revenue Growth of TIN200 HealthTech Companies by Category



Economic Contribution
TIN200 HealthTech Companies

Employment

In 2019, HealthTech firms employed 7,636 people, just over half of which are based in New Zealand (56.3%). Collectively, the sector employs 14.8% of the total TIN200 workforce. Fisher & Paykel Healthcare, the biggest employer in the sector, added 373 staff in 2019 the third most of any TIN company. The eight HealthTech firms in the TIN100 employ almost 90% of the workforce, in line with the revenue this group generates.

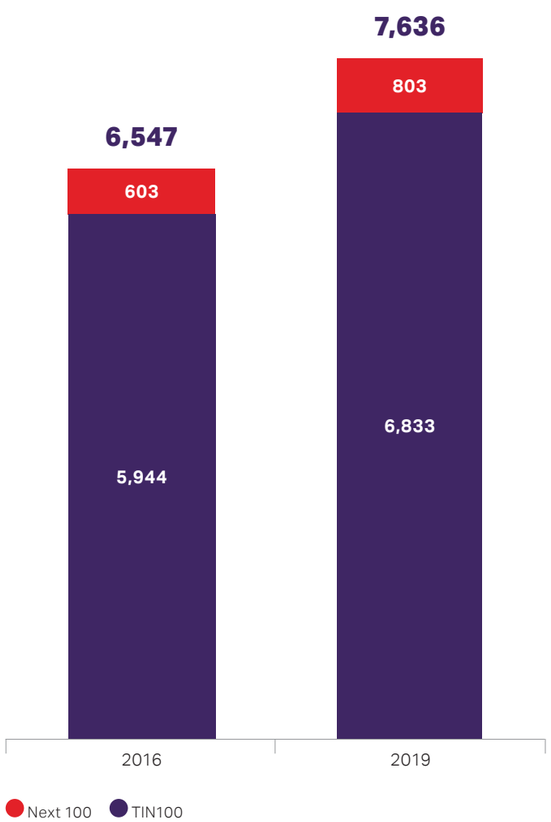
Over the last three years, HealthTech revenue has grown by 20.2%, while over the same period of time employment has grown slightly slower at 16.6%. In 2019 the HealthTech sector paid an average wage that is 41.5% above the average New Zealand wage. TIN200 HealthTech companies also generated $245,110 in revenue per employee, slightly ahead of the TIN200 average of $235,133 per employee. When combined, these facts suggest that the sector is focusing on hiring highly skilled workers and potentially gaining efficiencies as companies scale.

Exports

In 2019, exports for TIN200 HealthTech firms made up 87.5% of the total revenue generated. North America and Europe remain the two largest markets by share of revenue at 38% and 24% respectively, where in contrast, the largest sales for the wider TIN200 is generated locally in New Zealand as well as in Australia (29% and 26% respectively). This is evidence that New Zealand HealthTech companies tend to be born "global from day one".

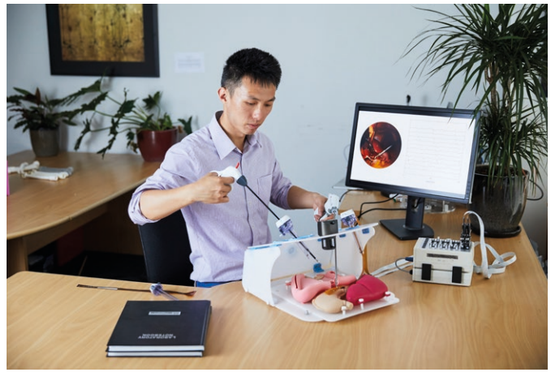
In 2016, TIN200 HealthTech companies generated 15.9% of their revenue in New Zealand. By 2019, this figure had dropped to 12.5%. This is a sign that exports are driving sales rather than domestic growth. Over the same period New Zealand HealthTech firms have gone from generating 10.9% of their revenue in Asia to 14.5%, whilst the share of market has remained relatively stable in other regions, an indication of the growing importance of the Asian market to New Zealand HealthTech firms.

TIN200 HealthTech Employees 2016 vs 2019



TIN200 HealthTech Sales 2016 vs 2019

	ALL TIN200 COMPANIES	TIN200 HEALTHTECH COMPANIES			
	2019 REVENUE SHARE (%)	2019 REVENUE SHARE (%)	2019 REVENUE SHARE ($000)	2016 REVENUE SHARE (%)	2016 REVENUE SHARE ($000)
New Zealand	28.5%	12.5%	$234,821	15.9%	$247,301
Australia	25.7%	7.0%	$136,058	7.9%	$122,169
North America	22.6%	37.8%	$707,543	38.7%	$602,567
Asia	7.4%	14.5%	$256,822	10.9%	$169,533
Europe	12.1%	23.7%	$444,431	22.4%	$348,885
Rest of the World	3.7%	4.4%	$81,557	4.2%	$65,693
TOTAL	**100%**	**100%**	**$1,871,658**	**100%**	**$1,556,147**



Cost Metrics
TIN200 HealthTech Companies

HEALTHTECH COMPANIES CONTINUE TO FOCUS ON COMMERCIALISATION AND PROFITABILITY, INCREASING OPERATING PROFIT (EBITDA) AGAIN IN 2019.

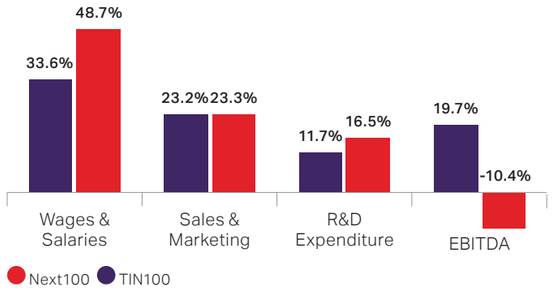
Profitability (EBITDA) growth in the HealthTech sector continued again in 2019, up 4.4% on 2018. This drive for profitability mirrors the picture seen in the 2019 TIN Report. Overall, HealthTech companies achieved an EBITDA of 17.5%, well ahead of the 11.7% achieved by other TIN200 companies.

Wages & Salaries are the largest cost amongst the HealthTech companies, which is in line with what was seen in the 2019 TIN Report. Wages & Salaries grew by 9.8%, which is faster than both revenue and employee numbers. The result has been an increase in the average wage from $79,000 in 2018 to $85,000 in 2019, and revenue per employee has also increased from $239,000 in 2018 to $245,000 in 2019.

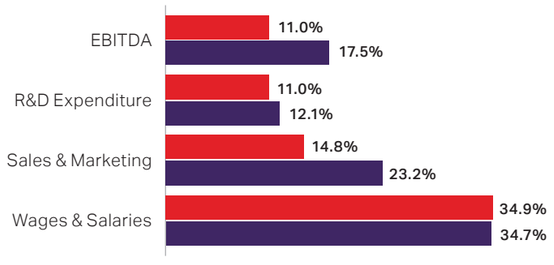
Sales & Marketing expenditure grew by 8.1%, well ahead of revenue (5.2%). Relative to other TIN200 sectors, HealthTech companies invest more in Sales & Marketing. This reflects the maturity of the large HealthTech companies, which are highly focused on driving distribution of existing products, as well as the complexity of the supply chain in healthcare. Fisher & Paykel Healthcare noted in their annual report that investment into market education, in order to impact process change and thus product uptake, requires both time and persistence.

HealthTech companies invested 12.1% of their revenue into Research and development, slightly more than the 11.0% invested by all TIN200 companies. This investment in R&D is an indication that our HealthTech firms are constantly refining and always driving for greater market fit for their products.

% Revenue for TIN200 HealthTech Companies



Cost as a % of Revenue Compared to TIN200 Companies



Average Revenue Per Employee

$245,000

Slightly higher than the $235,133 average for all TIN200 companies

Employed

7,500+

people, globally

16.6%

growth in total employees since 2016

34.7%

of revenue is invested in Wages & Salaries

Average sector wage

$85,000

that is 41.5% higher than the New Zealand average

HealthTech
in the Regions

185 Companies

Locations of the TIN200 HealthTech Companies

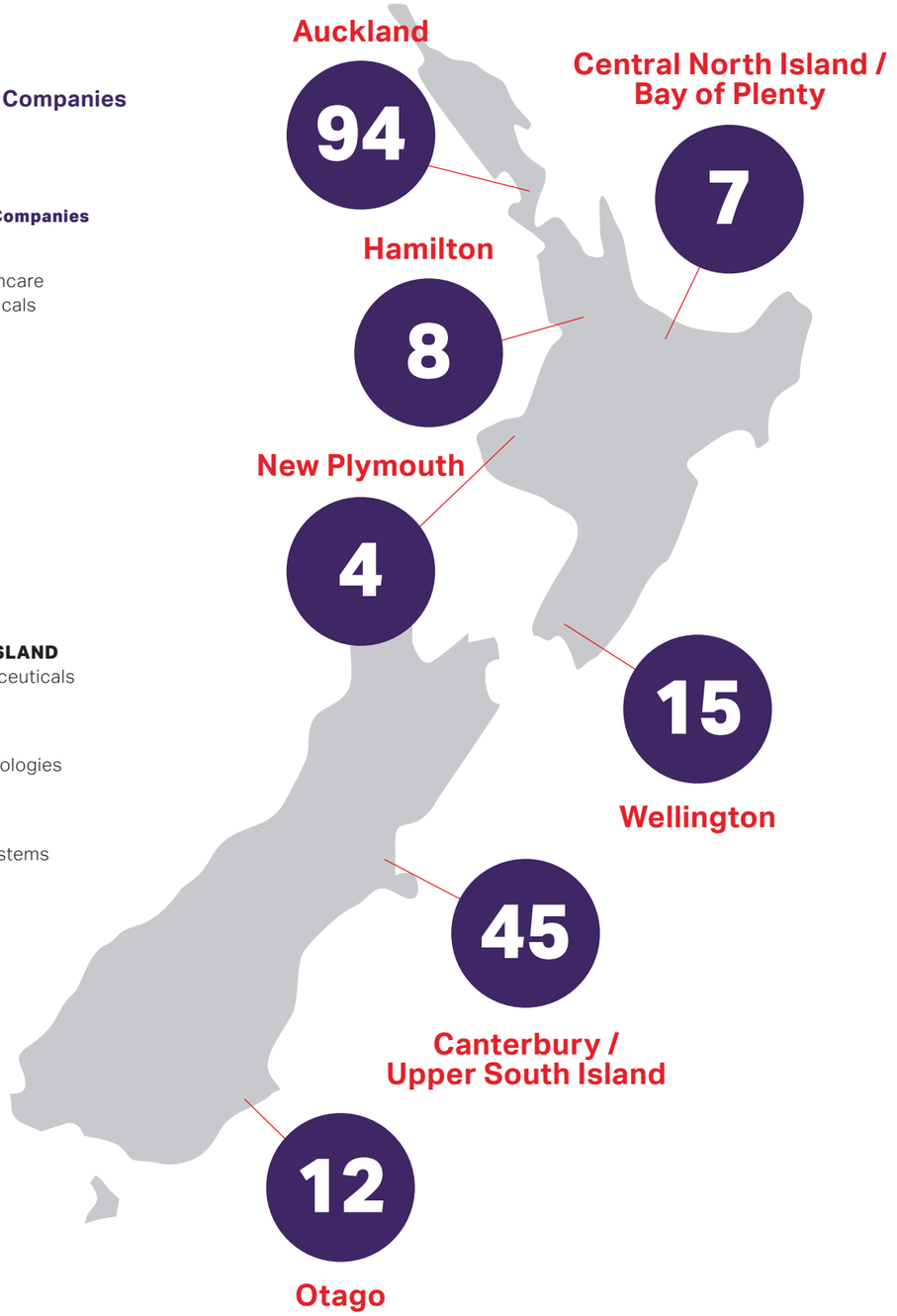
AUCKLAND
Fisher & Paykel Healthcare
Douglas Pharmaceuticals
Orion Health
AFT Pharmaceuticals
Atlantis Healthcare
Aroa Biosurgery
MedTech Global
Konnect NET
Intrahealth Systems
Sysmex
MoleMap NZ
Biomatters
Whānau Tahi
Titanium Solutions
Adept Medical

CENTRAL NORTH ISLAND
New Zealand Pharmaceuticals
Howard Wright

WELLINGTON
Volpara Health Technologies

CANTERBURY
Dynamic Controls
COMRAD Medical Systems
Canterbury Scientific

OTAGO
Pacific Edge



CEO Feedback
Challenges for the Year Ahead

IN TIN'S ANNUAL SURVEY, WE ASK CEOS WHAT THEIR KEY BUSINESS CHALLENGES ARE FOR THE YEAR AHEAD, WHICH THEY AND THEIR COMPANIES EXPECT TO FACE OVER THE NEXT 12 MONTHS.

Feedback from CEOs of the 22 TIN200 HealthTech companies revealed several recurring themes as they approached 2020. These challenges related to Regulation, Market Complexity, Staff and Expertise, and Investment.

Regulation

It is well understood by CEOs of the TIN200 HealthTech companies that the global healthcare industry is tightly regulated by stringent requirements around validating the safety and efficacy of a product through clinical trials and studies.

For most markets, entering the US and European market is a longterm goal for their business. This requires a deep understanding of the FDA and CE regulatory requirements and the ability to design clinical trials and a quality management process to meet these regulatory needs. Globally, regulatory systems are being overhauled and new legislation introduced to deal with software, making this a challenging pathway to navigate at present. Another key risk to consider are revenue generation avenues – who will pay for the technology and what hurdles have to be met. However, attaining FDA or CE approval for a new technology marks a huge commercial milestone for a company moving forward.

As Lewis Gradon, CEO of Fisher & Paykel Healthcare, noted: "We operate in a heavily regulated market which is currently going through some significant changes. This means that the process to bring a new product to market is extremely rigorous, and can introduce significant time delays. Furthermore, many of our therapies require a change in clinical practice and it can take many years to gather sufficient clinical research to support this."

Previous interactions with the FDA have been described by other CEOs as 'challenging', mainly due to a prior lack of understanding around navigating regulatory approval pathways, as well as New Zealand's historically archaic regulatory framework, which has only recently been modified to align with international standards. However, a positive sign is that there is now a growing body of local experts in international regulatory frameworks and quality management systems who can advise NZ HealthTech companies on their strategies around regulation.

Market Complexity

CEOs of TIN-surveyed companies also commented that they are encountering higher entry barriers to medical and healthcare innovation due to the complexity of the technology itself, and the clinical environment.

Several noted that many therapies and innovative devices "require a change in clinical practice" or the current standard of care, which often results in a paradox where the healthcare system does not readily adopt a potentially revolutionary technology that would drastically improve health outcomes.

Ian McCrae of Orion Health noted that a continued challenge for them is "the healthcare sector's slow pace of change to deploying technology which has the potential to transform healthcare."

Alongside this, CEOs related the challenges with new innovative technologies fitting under existing reimbursement structures. This can mean that health providers will not adopt the product, or that the process for attaining a new reimbursement code is lengthy and expensive.

Collectively, they believe these challenges will significantly increase the time-to-market launch period for a particular technology, which requires the company to have enough resources before it is launched and then see a return.

Staffing and Expertise

Another common theme observed amongst HealthTech sector CEOs was the need to scale up in terms of staff numbers and capabilities.

Feedback received from companies such as ADInstruments, JunoFem, and Virtual Medical Coaching indicate that key hiring decisions will be challenges for the upcoming year.

Expertise is also seen as a key issue. Medical technology innovation is a complex process closely intertwined within the technical, clinical, and commercial environment, so in order for an employee to deliver value for the company, an in-depth understanding of these capabilities is required.

However, with many medical and health technology companies having founders with research or technical backgrounds, some surveyed companies noted the need to hire a commercially-oriented CEO.

Investment

All the key business challenges identified above are heavily dependent on a company's cashflow and resources, which converge together in the challenge of seeking and securing investment.

Several companies that TIN surveyed in 2019 agreed that fundraising is an important mission that precedes any other commercial activities from scaling up, attaining regulatory approval, running clinical trials, recruitment, and expanding into new markets.

New Zealand is only now seeing more local investors active in the medical and health innovation space; this however, is not enough to sustain the volume of innovation that is currently being generated. A better platform is required to help New Zealand HealthTech companies gain the visibility and traction needed to further attract local and international investment.

The challenge for the HealthTech sector in general in 2020 will be to identify that platform and so collectively draw greater investment.

COMPANY PROFILE: Fisher & Paykel Healthcare

A Vision for the Future of **HealthTech in New Zealand**

WITH 9.1% GROWTH PROPELLING THEIR REVENUE OVER A BILLION DOLLARS – ONE OF JUST THREE COMPANIES IN THE 2019 TIN REPORT TO ACHIEVE THIS MILESTONE – IT WAS A NOTABLE YEAR FOR THIS 50 YEAR OLD KIWI COMPANY, WHICH CAN NOW BE OFFICIALLY DESCRIBED AS THAT RARITY IN THE NZ TECH SECTOR, A TRUE 'UNICORN' BUSINESS.

Fisher & Paykel Healthcare has appeared on the *EY Ten Companies to Watch* list in the TIN Report every year since 2012, and boasts a 5-year revenue CAGR of 11.4%. This is testament to the company's sustained, strong growth, which came from both sectors of the business (hospital and homecare) as well as continued strong performance in the North American market.

The billion-dollar milestone in itself is evidence that Fisher & Paykel Healthcare's long-term strategy – centered on care through innovative products, changing clinical practices, global reach, and sustainable growth – is delivering results.

We spoke with Marcus Driller, Vice President Corporate at Fisher & Paykel Healthcare to understand the secret to the company's success, and what other NZ healthtech companies can learn from their example that will increase the potential for more billion-dollar companies in future...

MARCUS DRILLER, Vice President Corporate, Fisher & Paykel Healthcare

What are the three things that Fisher & Paykel Healthcare has focused on in the last five years that have helped the company achieve its success?

"Success for us at Fisher & Paykel Healthcare means improving the care and outcomes for more and more patients around the world each year. Last year our products were used in the treatment of approximately 14 million patients in more than 120 countries."

"For the last five years we've had a consistent focus; working with healthcare providers to develop new therapies that change clinical practice and reduce costs to healthcare systems, continuous improvement of our products, and increasing our presence around the world."

Any successful company faces challenges along the journey towards sustained growth and profitability. What has F&P Healthcare's approach been to facing the challenges within the healthcare sector, and how has this influenced the company's long-term strategy?

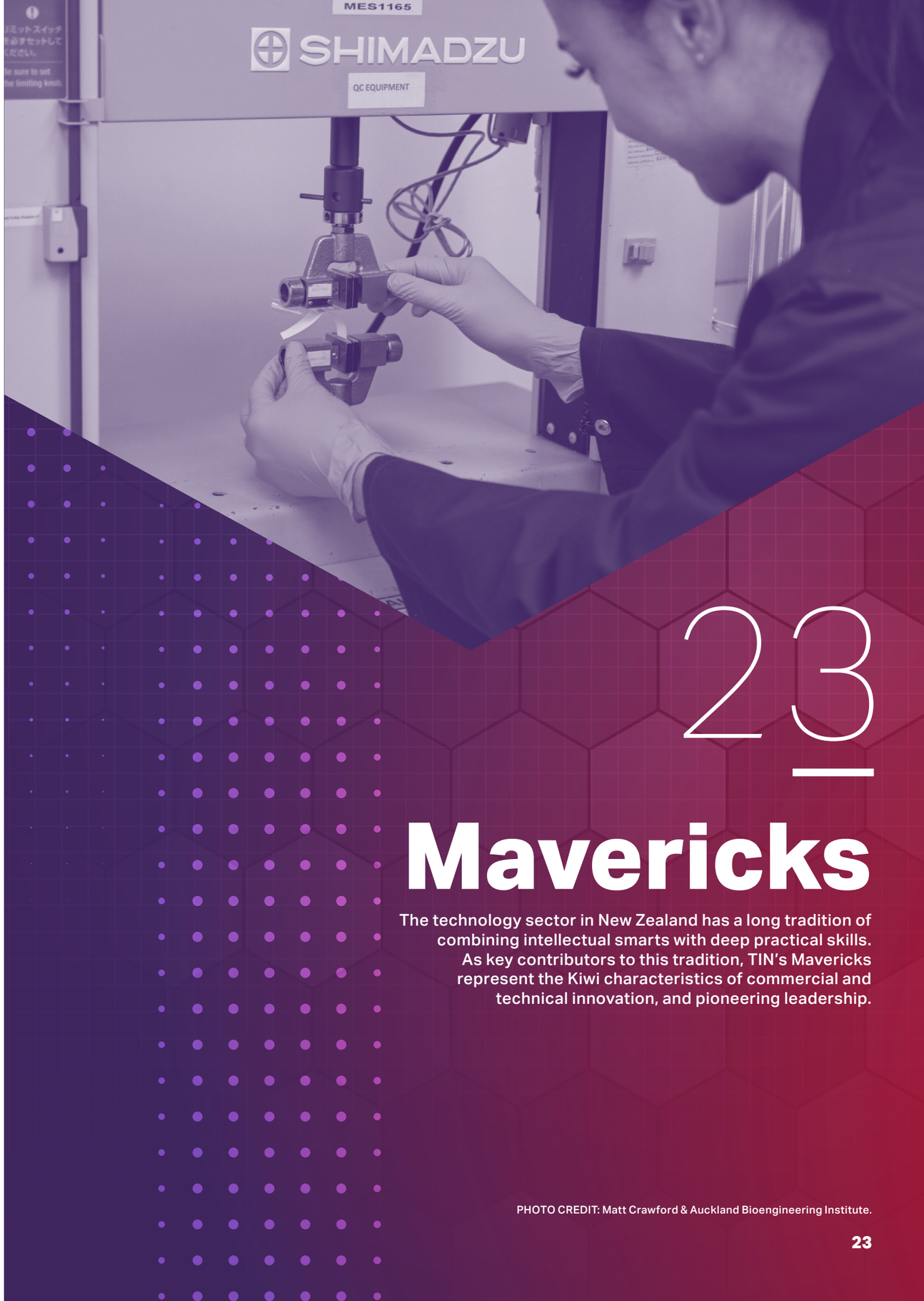
"We live in a world where healthcare costs are increasing at a rapid rate. With an ageing population and increasingly successful healthcare practices improving longevity, the burden of healthcare cost is likely to be unsustainable."

"Our long-term approach has been to develop quality products that are designed to be easy to use, to help reduce a patient's need for costly, higher intensity care, and where possible, to facilitate a patient's independence and treatment in the home. Our products are designed to provide an economic benefit for the customer, and in that way we can help to deliver a more sustainable healthcare service the world over."

Speaking from your position as the number one healthcare technology sector company on the TIN200, what is your broader vision for the future of HealthTech in New Zealand ?

"We think there are a number of advantages of being a healthtech company headquartered in New Zealand. NZ has world class healthcare systems, a supportive regulatory environment, efficient and effective processes for conducting clinical trials, and a competitive cost base."

"A small local market like NZ encourages tight links between industry, universities and hospitals. It also ensures a need to think globally. We look forward to seeing the world-leading and world-changing innovation that comes out of other New Zealand healthtech companies in the future."



23

Mavericks

The technology sector in New Zealand has a long tradition of combining intellectual smarts with deep practical skills. As key contributors to this tradition, TIN's Mavericks represent the Kiwi characteristics of commercial and technical innovation, and pioneering leadership.

PHOTO CREDIT: Matt Crawford & Auckland Bioengineering Institute.

People:
Dr. Peng Du

DR. PENG DU ARRIVED IN NEW ZEALAND WHEN HE WAS JUST 12 YEARS OLD, AND QUICKLY THRIVED IN THE NZ EDUCATION SYSTEM, EXCELLING IN BOTH SPORTS AND ACADEMIA. HIS PARENTS, BOTH FROM SCHOLARLY BACKGROUNDS, KEPT HIM FIRMLY FOCUSED ON STUDY, AND TO THIS DAY HIS THIRST FOR KNOWLEDGE CONTINUES TO BE HIS DRIVING FORCE.

After 22 years in this country, Dr. Du today is a multi-award-winning scientist whose contributions to gastrointestinal research are widely cited, with his most recent accolade being the 2018 Prime Minister's MacDiarmid Emerging Scientist Prize.

Along with being a research fellow in the Gastrointestinal Research Group at the Auckland Bioengineering Institute, in 2013 Dr. Du co-founded FlexiMap, a company with a team of biomedical engineers and clinicians working on technologies for gastrointestinal motility disorders.

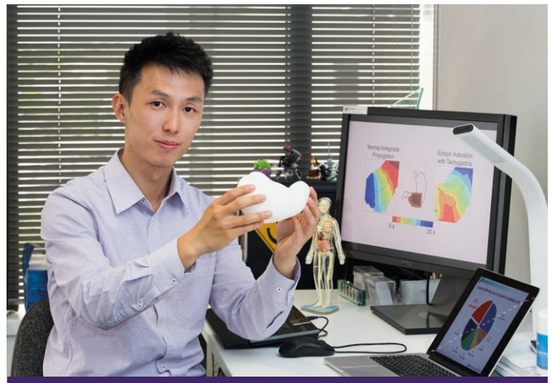
Dr. Du is also a global leader in mathematical modelling in gastrointestinal electrophysiology, with ground-breaking research contributions in both disease diagnosis and treatment. His research has led to the development of state-of-the-art devices for measuring gut activity with unprecedented method and scale.

What's more, Dr. Du and his colleagues have been able to conclusively prove that disease induces changes in electrical activity in the gut. They see capacity for developing 'signatures' for different diseases, based on the gut's bio-electrical signals that they can measure, which will in turn support the diagnosis and, ultimately, treatment of those diseases.

The motivation for Dr. Du and his team of leading researchers at FlexiMap is simply to commercialise and take their devices, data, and findings to the world. However, Dr. Du is also determined to ensure New Zealand receives the benefits of the research, particularly following the support received through government grants, Auckland University investment, and MedTech CoRE.

Today, FlexiMap has established international partnerships that enable cross country and cross team collaboration but retain the IP and continue to grow the knowledge base here in New Zealand.

As Dr. Du notes, "That's the trick, to bring people together, to share understanding. That's one of the biggest reasons we have been successful, as individuals as well as a research group." This, he says, is when "the magic happens."[1]



DR. PENG DU, Bioengineer and Founder, Fleximap

What has made doing business in New Zealand effective for you?

"New Zealand benefits from a world-class education system that trains outstanding technical professionals. Yet due to the market size and culture we enjoy a more integrated environment where people can get in touch and get work started relatively quickly. The bonus of the time difference with Europe and North American means our partners will get our latest updates when they wake up in the morning!"

What would you tell those considering investing in New Zealand Healthtech businesses?

"Imagine a launchpad where the quality of the technical and regulatory systems are top-notch, you will be able to test and perfect your products and services before launching them in the 'big markets' – that's Aotearoa. In addition, since there's a big OE culture here, you're also likely to convince many of the people who work for you to relocate to a different market which means you'll be able to retain talent and make the transition to international markets much easier."

How are you managing FlexiMap's entry and growth into international markets?

"As a research device company, the fidelity of our systems is our foremost concern. While consolidating good relationships with our current clientele, I expect our reputation will grow within the research community and extend our reach to more markets."

[1] 'National Portrait: Dr. Peng Du' Stuff Online, 9 June 2019, by Rob Mitchell.

Companies:
Aroa Biosurgery

AROA BIOSURGERY IS AN AUCKLAND-BASED TISSUE REGENERATION COMPANY WHICH DESIGNS, MANUFACTURES, AND COMMERCIALISES BIOLOGICAL MEDICAL DEVICES FOR COMPLEX WOUNDS.

CEO Brian Ward founded the company in 2008 as a result of his research on the regenerative properties of the 'ruminant forestomach extracellular matrix' – otherwise known as sheep stomachs.

Formerly known as the company Mesynthes, Aroa initially contracted R&D from Industrial Research Limited but quickly found itself expanding its internal development capabilities, and then relocating into the current Auckland facility in 2014 to scale up manufacturing.

The company commercialised its first proprietary product, the Endoform Dermal Template – which contains a collagen scaffold and important secondary molecules to support tissue regeneration. Endoform Dermal Template was launched in 2013 by the US company Hollister Inc. after obtaining FDA clearance and reimbursement within the US healthcare system.

Aroa Biosurgery announced its partnership with US-based surgical products company, TELA Bio in 2013 to jointly develop the OviTex Bioscaffolds, which received FDA clearance in 2014 for hernia repair and abdominal wall reconstruction and were subsequently launched mid-2016. These products provide a new alternative to synthetic mesh.

These partnerships have helped Aroa Biosurgery accelerate growth, particularly after TELA Bio received a US$25m investment from Pacira Pharmaceuticals in 2017, and then more recently a further US$50m after listing on the United States NASDAQ exchange in November 2019.

In 2018, Aroa Biosurgery acquired back its wound healing rights and partnered with US-based medical products company Hydrofera to launch Appulse in North America; creating a 30 strong sales team for their complementary wound healing products.

Today, Aroa Biosurgery continues to demonstrate strong growth achieving its maiden profit straight off the back of 118% revenue growth in 2019. This accomplishment also saw Aroa Biosurgery jump up the TIN200 ranks from the Next100 to the top ranked TIN100 company list this year.

BRIAN WARD, CEO and Founder, Aroa Biosurgery

What have been the key factors that have contributed to your success in the US?

"One key factor has been both pursuing and securing commercial partners early in the life of the company. Securing a licencing agreement for our first Endofrom product with Hollister Inc. provided us a with some sales volume certainty and enabled us to invest in manufacturing and further development. Subsequently, Aroa has been able to expand into surgical applications, build out its portfolio and then buy back the rights from Hollister Inc., effectively giving us a known brand, US channels, and market insights which we did not have at the outset."

What are the benefits of being based here in New Zealand?

"During the early stages of development, being New Zealand-based meant Aroa had access to great scientific and engineering talent, and a team with a 'çan-do' attitude. We were lucky to secure access to R&D resources and facilities at Industrial Research Ltd and its successor, Callaghan Innovation. Then, early stage venture capital investment from Movac, Sparkbox, Cure Kids Ventures, and K1W1 equipped us with seed and expansion funds, and our early backers have stayed on as cornerstone investors in subsequent investment rounds. Besides this, our large national sheep flock is free of prion diseases, which are endemic in many overseas flocks."

What are the main challenges Aroa will face over the next 12 months?

"To continue to grow our business internationally, we will be expanding our sales operation in the US and continuing to invest in clinical studies and new product development. We have recently launched products in Canada, Europe, and Asia where we have been developing country level partnerships. 2020 will also see further investment in our manufacturing capacity, as well as a significant capital raise to support our vision of delivering better healing by ensuring our products are widely accessible, affordable, and change the standard of care for many patients."

People:
Dr. Seamus Tredinnick

DR. SEAMUS TREDINNICK IS A PIONEERING ENGINEER IN THE AREA OF ORTHOPAEDIC IMPLANTS IN BOTH HUMANS AND ANIMALS.

Through his work, he has changed the lives of people the world over with his groundbreaking research into the development of implants that are currently giving patients that would otherwise live in constant pain another option.

Dr. Tredinnick's PhD Thesis has revolutionised 3D printing in medicine, resulting in a complete paradigm shift in relation to implant design and how 3D printed titanium implants interact with bone (see image below).

During his thesis, Dr. Tredinnick managed to progress from a single idea to a fully clinically validated outcome. This in itself is an extraordinary achievement within a PhD but made all the more so due to the need to work across both engineering and science disciplines.

The ability to work across disciplines and translate findings into the real world is a defining approach for Tredinnick, who founded and manages the team at veterinary implant company OssAbility in Christchurch.

Throughout his career, Tredinnick has had the opportunity to evolve his business skills and extend his research through strong relationships with Canterbury University, his roles at device manufacturers Enztec and Ossis (both located in Christchurch), and with support from various industry and government agencies along the way.

DR. SEAMUS TREDINNICK, Founder, OssAbility

In your experience, what makes New Zealand a great place to grow a HealthTech business?

"New Zealanders are a humble bunch of people. That means a vet and an engineering student can share a few pints, talk about solving the world's problems, and end up starting a company together. We are also trusting. Our first customers bought our products sight-unseen. They knew we were doing all we could to help them and their patients. They appreciated us taking the risk to make something better and they rallied around us. It's like Kiwis are all on the same team."

What is the key to developing a highly effective multidisciplinary team?

"I have a lot of patience for clever people working on hard problems. My job is to clear the road and give them space to be brilliant. We are brutally honest and that builds trust. We put the mission first. If someone is willing to let something slide, they won't last long around here. We have a culture of doing it properly and getting it right, as there is a patient at the end of the decisions we make."

What are the next steps for OssAbility?

"It's not just implants and instruments. We provide case-by-case support to help vets do better surgery. This service helps more vets become customers and have a positive experience using our products. It's also an ongoing commitment to getting the best outcome for the patient. Our team is constantly improving the quality of our clinical decision-making based on the lifetimes of experience we collect. From here, it about personalizing that to our customers' situation. Because we are expanding out of Australasia into North America, we are learning the nuances of those new customers. It feels good to be on the front foot."

Companies:
Volpara Health Technologies

VOLPARA HEALTH TECHNOLOGIES IS A WELLINGTON-BASED MEDICAL TECHNOLOGY COMPANY THAT HAS COMMERCIALISED AN AI-IMAGING PLATFORM THAT ENABLES THE EARLY DETECTION OF BREAST CANCER THROUGH ANALYSING MAMMOGRAMS FOR BREAST COMPOSITION OR BREAST DENSITY.

Dr. Ralph Highnam founded the company in 2009 with the aim of addressing the low accuracy for mammograms in detecting early-stage breast cancer in women with dense breasts. Since then, Volpara has only increased its recognition as a leader in HealthTech and its traction as a business.

In 2016, Volpara listed on the ASX, raising $10m in an IPO which gave the company an immediate capitalisation of $61m. Since then, Volpara has continued to see significant growth as a publicly listed company, achieving a market capitalisation of $333m in 2019. Consistent with this, the annual recurring revenue generated from Volpara's software solutions has grown 185% (5-year CAGR between 2016 and 2020.)

Volpara recently acquired US company MRS Systems, which is prospected to help expand the company's market share in the US breast screening market from 7% to 25% and increase the average revenue per breast screen from US$2.20 towards US$10.00.

Volpara's US accounts continue to generate the largest share of its revenue at 90%. The company credits its success to building products that help customers care for their patients and that help with profitability in a heavily regulated environment.

Volpara continues to expand its global presence through its recent partnership with multinational company GE in the US, Europe, Asia, and other territories. The company also signed a deal with Dutch firm ScreenPoint for distribution rights of their Transpara software solution.

DR. RALPH HIGHNAM, Founder, Volpara Health

What has been the biggest challenge for the company so far?

"Changing medical practice is difficult; you need to be patient and we've been lucky to find investors willing to invest into a NZ company that have the global, medical understanding."

How has a listing on the ASX affected the company?

"It's allowed us access to US-size venture capital from Wellington. It does increase costs, increase work, and public exposure, but that access to capital is vital when you are taking on the world in the medical space."

What are the benefits of being based here in New Zealand?

"In Wellington, the lifestyle is great – diverse city, where you can walk to work, walk to the beach, walk to the green belt. Awesome! Add that to world-class software engineers, image processing people, and a strong team culture, and we can take on the world from here."

Companies:
Whānau Tahi

WHĀNAU TAHI IS AN AUCKLAND-BASED IT HEALTHCARE COMPANY THAT PROVIDES FAMILY-CENTERED SOFTWARE AND ONLINE SERVICES UNDERPINNED BY A MĀORI WORLDVIEW.

Whānau Tahi was established in 2011 to translate Māori principles of whānau-centric healthcare into an online platform that empowers patients, families and healthcare providers with greater visibility and control throughout the health treatment process.

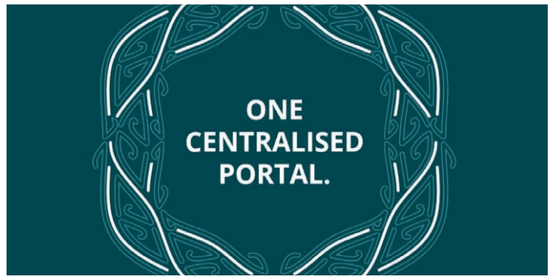
Whānau Tahi's mission of shared care programmes is driven by a vision of fully connected, data-driven patient pathways, where health and social impacts are measurable and provable. It operates in support of Te Whānau o Waipareira, New Zealand's leading whānau-centric service provider and another 75 Māori health and social service providers under the Government's Whānau Ora or 'family-wellbeing' intervention programme. Whānau Tahi's strategic direction is underpinned with insights from leading national community research unit, Wai-Research.

The company's core offering is an integrated shared care programme combining its pioneering Navigator software (a whānau-centred care platform) with Connected Care (a purpose-built connected care platform, acquired from HSA Global in 2015.) Navigator enables kaimahi to remove communication barriers, cultivate family-driven outcomes and measure impact, while Connected Care facilitates the exchange of clinical and user data and feedback between primary and secondary sector healthcare providers.

Whānau Tahi's software also underpins the New Zealand ePrescription System for the NZ Ministry of Health's practitioners and pharmacists, as well as a National Needs Assessment and Service Coordination platform called Socrates. In 2016, Whānau Tahi augmented its database of health services, medication, and payment management knowledge with acquisition of information sharing software SimplHealth.

In New Zealand, Whānau Tahi's key clients include the Ministry of Health, as well as several NZ district health boards and many hospital emergency departments around the country. Whānau Tahi's products are also making a global impact, with the company partnering with other indigenous communities around the world to deliver similar software services in their local regions.

In 2019, Whānau Tahi continues to demonstrate a leading presence in the healthcare software solutions space. Qualifying for the TIN200 for the third year in a row, Whānau Tahi now has an estimated revenue of $8.5m and rank of 168 in the Next100. This builds on consistent performance since 2017, when Whānau Tahi took first place in TIN's Ten Hot Emerging Companies awards that year. This followed a finalist placing in the 2016 New Zealand Hi-Tech Awards, as well as the Microsoft Worldwide Partner of the Year Awards in that year, the first time a New Zealand organisation achieved nomination in this category.



What have been the key challenges of establishing a software platform underpinned by a Māori worldview? How do you deliver services utilising a culturally authentic approach within the healthcare system?

"The Whānau Tahi platform is built by Māori, with Māori and for Māori. It enables a whānau-centric model of delivery of services (which draws on the kaupapa of Whānau Ora), supports the use of te reo, and has embedded within it models of wellbeing that draw on principles from te ao Māori. While Whānau Tahi does not deliver services directly, our work supports service delivery that is also by Māori for Māori."

How has your Māori-worldview based approach informed the work you do with other indigenous communities around the world?

"We've realised that many indigenous communities around the world face similar issues and that creating a collective response will yield better outcomes for whānau. By focusing on whakawhanaungatanga we have been able to build a foundation of trust that we can then build upon to work toward achieving aspirational outcomes for all communities, not just Māori."

What are the business opportunities / challenges that Whānau Tahi is looking to address over the next 12 months?

"We will be looking to expand the use of our products both nationally and internationally. We are working closely with the Bureau of Indian Affairs, Families First, and FHI 360 in the United States, taking the learnings we've gained in Aotearoa and applying them on an international stage. We will also be looking to expand the use of our products in the health sector in Aotearoa to better inform and support best practice ultimately to benefit whānau."

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Sector Categories & Industry Environment

PHOTO CREDIT: Matt Crawford & Auckland Bioengineering Institute.

Sector Categories:
Revenue Share of Market

THE ESTABLISHED GROUP OF DEVICE MANUFACTURERS IN THE TIN200 ACCOUNT FOR A QUARTER OF THE TIN HEALTHTECH COMPANIES, BUT GENERATE TWO THIRDS OF THE REVENUE; IN ADDITION TO THESE ESTABLISHED COMPANIES THE CATEGORY HAS A NUMBER OF EMERGING DEVICE DESIGNERS AND MANUFACTURERS.

Devices

New Zealand has a long and successful history in relation to Devices, since Colin Murdoch developed the syringe in 1966 to MARS Bioimaging developing the first ever colour X-ray machines. Collectively the companies in this sector perform well above expectation, boasting a combined 5-year CAGR of 10.8%, and growing revenue by $99m in 2019 to $1.2B. Only one of the companies in this sector is investment backed. Some of the most established companies in the TIN Report, including Fisher & Paykel Healthcare, Dynamic Controls, Howard Wright, Mole Map NZ, and Adept Medical lead this sector. In behind these companies is an incredibly exciting group of emerging Device designers and manufacturers, perhaps in part, a product of New Zealand's growing specialisation in this category which is very cohesive. More than 40% of the emerging companies listed in this report come from the Device sector including Enztec, Taska Prosethetics, Veriphi, The Insides Company, Myovolt, HT Systems, and Rhondium Dental Laboratories, to name just a few.

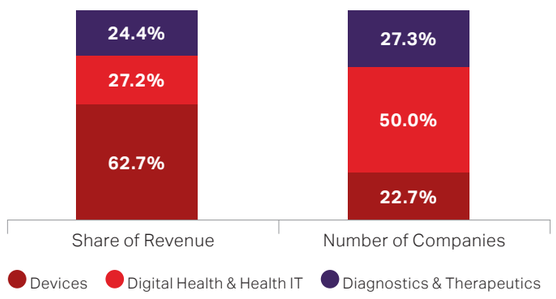
Digital Health & Health IT

The 11 TIN200 companies in this category make-up half of all the HealthTech companies in the TIN Report. They generate a little over a quarter of the revenue, $241.6m. Orion Health dominates this category, and in 2019 sold part of the business to HG Capital in the UK, making year-on-year comparison difficult. Excluding Orion Health from the analysis shows the sector grew by 9.2% in 2019, well ahead of its 5-year CAGR of 5.8%. The companies in Digital Health and Health IT form two clusters, those that provide clinical workflow health informatics solutions (nine companies) and those that have a more advanced diagnostics or analytical platforms in their technology (two companies). The two companies in this advanced space, Volpara Health Technologies and Biomatters, demonstrated growth rates in excess of 40%. Four of the companies in this category are foreign owned, an indication of the global interest in the category. Just over 40% of the emerging companies listed in the back of this report are in Digital Health and Health IT, this includes: Melon Health, Adherium, Heartlab, Vensa, Celo, Formus Labs, SHI Global, The Clinician, Kara Technologies, Swibo, Inclusys and Migo. Each of these companies have unique products in development and/or in-market with a number of these companies already attracting early stage investment.

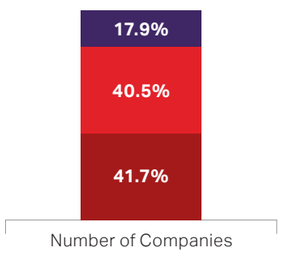
Diagnostics & Therapeutics

In 2019 the six TIN200 companies in this category generated $456m following revenue growth of 9%. The sector is anchored by three pharmaceutical companies, Douglas Pharmaceuticals, New Zealand Pharmaceuticals (NZP), and AFT Pharmaceuticals; all of these companies generate the majority of their revenue offshore. This group, along with device manufacturer Fisher & Paykel Healthcare, bring a wealth of knowledge in relation to international distribution models and are helping pave the way for others. Aroa Biosurgery and NZP are both investment backed and displayed strong growth with Aroa Biosurgery growing 117.9% in 2019. 18% of emerging companies fall into this category and many have gained interest from the investment community including Avalia Immunotherapies, Chitogel Ltd, Kea Therapeutics, Upstream Medical Technologies, and Kode Biotech, to name a few. Many have products based on deep-tech such as Auramer Bio, Curonz, and NZeno.

Revenue and number of TIN200 HealthTech Companies by Category



Number of Early Stage HealthTech Companies by Category



Game Changers:
Where the Tech is Heading

ANTICIPATING WHAT HEALTH TECHNOLOGY WILL BE ABLE TO ACHIEVE IN A YEAR'S TIME IS CHALLENGING ENOUGH, BUT WHAT ABOUT THE NEXT DECADE? AND THE DECADE BEYOND THAT? HERE ARE THREE PROMISING, GAME CHANGING AREAS RELEVANT TO HEALTHCARE GLOBALLY, WHICH ALREADY OFFER OPPORTUNITIES FOR NZ HEALTHTECH RESEARCHERS AND STARTUPS.

1. Precision Medicine & Computational Physiology

While the concept of tailoring care to an individual has been around in some form since the dawn of medicine, the increasing data processing capability today is taking healthcare technology in this area in unprecedented directions.

Precision medicine identifies the most effective approaches for individuals based on genetic, health, social, age, and lifestyle factors. Its foundation is the use of statistically accurate models of the human body to observe how the body reacts to stimulation through biophysically and anatomically based computational models. These are used, often with the assistance of machine learning, to interpret health data in order to diagnose disease or injury and to help guide therapeutic intervention.

The Auckland Bioengineering Institute at the University of Auckland has already developed world leading capability in the modelling of individual organs which can then be integrated into whole body systems for both diagnosis and treatment.

"The ABI provides a multi-disciplinary research environment to integrate basic and translational science with clinical and commercial outcomes through the use of computational modelling, instrumentation development and experimental work. It also supports an innovation environment for medtech for the University of Auckland and for New Zealand."

DISTINGUISHED PROFESSOR PETER HUNTER – Director, Auckland Bioengineering Institute, University of Auckland

Example Companies: FlexiMap, Formus, IMeasureU, Adherium, ARANZ Medical, HeartLab, Toku Eyes

2. Health and Wellbeing Management by Gamification

Gamification is starting to appear in various aspects of health, such as in apps for fitness and nutrition, child healthcare, physical therapy, and emotional health applications. It has the potential to motivate patients to better adherence with rehabilitation, self-manage chronic conditions, and maintain long term lifestyle changes for personal and societal benefit.

By integrating behavioural psychology concepts and using game-design elements in the non-game contexts of health, patients are empowered with self-management or self-agency, and benefit from promotion of self-care skills.

Common design elements include personalised goal setting, progress records to measure and reward success, allowing users to share progress with friends or peers for group-motivation. There is also growing expertise in New Zealand around Virtual Reality and Augmented Reality simulations for clinical education, training, and rehabilitation, anchored by the game development industry.

"NZ's innovative IT and game development sector and our closely connected health innovation and delivery system enables us to lead the future of gamified health delivery. Our diverse population is willing to utilise their mobile devices for innovative applications including improvement of health and wellbeing, so we are well placed to develop and gamify mHealth."

MARCUS KING, Distinguished Engineer, Callaghan Innovation; Principal Investigator, MedTech CoRE

Example Companies: Swibo, AbleX Healthcare, Sparx, JunoFem, MTech Games

3. Tissue Engineering for Regenerative Medicine

Tissue engineering is the use of biomaterials and cells to grow, improve, or replace biological tissue. In recent years, advances in this field has seen the development of skin, cartilage, bone, muscles, and blood vessels. The holy grail is growing whole organs for transplants.

New Zealand has an active and globally recognised research portfolio emerging in regenerative medicine focused on skeletal and soft tissue engineering, a multidisciplinary field that is growing rapidly. This typically requires a biocompatible scaffold that supports cell growth and enhances native tissue repair.

New Zealand has a nascent industry in tissue scaffolds, with Aroa Biosurgery fast becoming a global leader in regenerative tissue products for chronic wounds and soft tissue repair. We also have an established orthopaedic implant industry focused on the design and fabrication of implants.

"We have been recently awarded a US Army Department of Defence grant in collaboration with biofilm experts from University of Utah's orthopaedic engineering team to address an urgent clinical problem of devastating open fracture and wound complications to improve the quality of care and life in soldiers and civilians."

PROFESSOR JILLIAN CORNISH, MedTech CoRE RegenMed Theme Co-lead, University of Auckland

Example Companies:
Aroa Biosurgery, Ossis, OssAbility, Collagen Solutions NZ Ltd, Zenith Technica

Investment into Research:
Companies Spend on R&D

IN 2019, TIN200 HEALTHTECH COMPANIES INVESTED 12.1% OF THEIR REVENUE IN R&D, WHICH IS SLIGHTLY MORE THAN THE 11.1% OF REVENUE INVESTED IN R&D BY THE WIDER TIN200 GROUP.

Notably, the intensity of spend on R&D is greater in all three of the HealthTech categories when compared to their corresponding TIN sectors. Companies in the Digital Health & Health IT category collectively invested 25.7% of their revenue into R&D, an indication of the pace at which this category is pursuing innovation.

TOTAL HEALTHTECH R&D SPEND 2019:

$226.3m

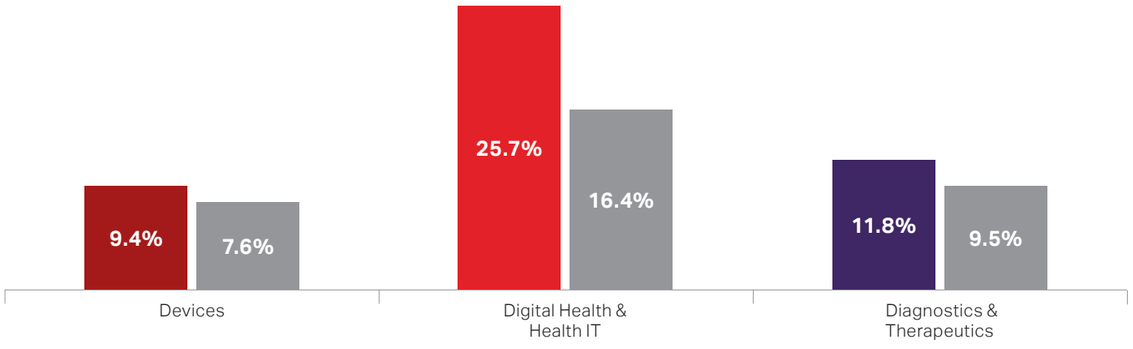
that is 16.7% of total TIN Companies investment in R&D

SPEND AS A % OF REVENUE 2019:

12.1%

TIN200 spend 11.1%

R&D Spend as % of Revenue for TIN HealthTech Companies vs All TIN200 Companies



TIN200 Industry Benchmark R&D % Revenue (2019)

R&D investment made by the TIN companies is complemented by a number of other public and private sector initiatives and funds that support R&D. More detail about these can be found in 'The Eco-System' chapter starting on page 39, however an example is the Technology Transfer Offices (TTOs) which are housed within New Zealand's universities. These offices are non-diluting grant funders with extensive relationships and strong ties to large international investment groups. Below is a sample of some of the investments made by TTOs.

Sample of investments made by Technology Transfer Offices

TTO	SAMPLE OF COMPANIES
Auckland Uniservices	Formus Labs, JunoFem, Objective Acuity, Opum Technologies, Soul Machines, Stretch Sense, The Insides Company, Toku Eyes, HeartLab, Vivify, Kara Technologies, Kea Therapeutics
Otago Innovation	Avalia Immunotherapies, Chitogel Ltd, Elucimed, Pacific Edge, Silventum, Ubiquitome, Upstream Medical Technologies
AUT Ventures	Avice, Kode Biotech
University of Canterbury	MARS Bioimaging
Victoria Link	Auramer Bio, Avalia Immunotherapies, Swibo

Investment into Research: Partnerships
GE Healthcare & MARS Bioimaging

INVESTMENT INTO HEALTHCARE HAS BEEN A LONG-STANDING DETERMINANT OF SUCCESS FOR AN EARLY-STAGE TECHNOLOGY COMPANY. ALTHOUGH TRADITIONALLY ASSOCIATED WITH FISCAL ARRANGEMENTS, THE RESEARCH PARTNERSHIP BETWEEN MARS BIOIMAGING AND GE HEALTHCARE PROVIDES A DIFFERENT PERSPECTIVE TO OUR UNDERSTANDING OF HOW INVESTMENT INTO HEALTH TECHNOLOGIES CAN WORK TO DELIVER NEW PRODUCTS.

MARS Bioimaging is a company that has developed a state-of-the-art spectral scanner which provides 3D color images of objects inside the body, such as bones, soft tissue, intrinsic and extrinsic biomarkers, and artificial joints. It was developed by the father-son duo of Professors Phil and Anthony Butler.

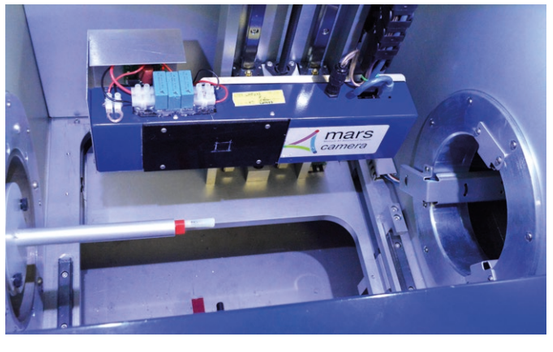
The creation of the scanner came as a result of a joint project between the Universities of Canterbury, Otago, and Auckland and has received approximately $12m in funding to date from various sources including MBIE, MedTech CoRE, National Health Foundation, the NZ Arthritis Foundation, the New Zealand Royal Society, and the Royal Australian and New Zealand College of Radiologists.

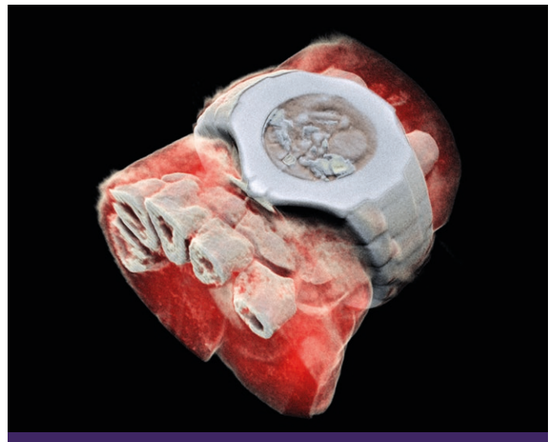
In addition to public funding, MARS Bioimaging also came to an agreement with GE Healthcare for a research partnership, securing scientific and business guidance from the multinational conglomerate as well as the donation of a state-of-the-art scanner valued at $1m for the development of the MARS scanner.

Professor Anthony Butler, CMO of MARS Bioimaging, believes that their scanner, "will provide clinicians with information that is currently not possible in traditional CT, MRI, or PET scans."

Similarly, senior officials from GE Healthcare are confident that spectral photon counting – the technology currently used in the MARS scanners – will "help revolutionise medical imaging."

This research collaboration between GE Healthcare and MARS Bioimaging demonstrates how joint-collaboration and investment into high-growth start-ups from established players helps augment value creation and realisation of the clinical potential of new healthcare technologies.





A 3D MARS image of a wrist with a watch showing part of the finger bones in white and soft tissue in red.

Prof Phil Butler displays the area of his wrist that was scanned as one of the first human images taken using the MARS large bore spectral scanner.

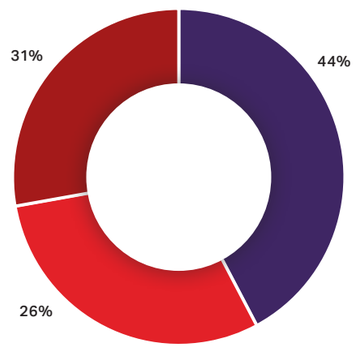
Investment into Healthcare: **Angel and VC**

THERE IS LARGE SCALE OPPORTUNITY AND NEED TO INCREASE INVESTMENT INTO THE HEALTHTECH SECTOR IN NEW ZEALAND.

Out of the 185 HealthTech companies featured in this report (ie. both TIN200 HealthTech companies and early stage companies combined) approximately 53 companies made a total of 80 deals involving 34 investors (excluding TTO and non-diluting grant funders). Venture capital firms made up half (51.5%) of investors with angel investors accounting for a further 33%. 15.2% were private equity firms. Deals were primarily done with companies in the Therapeutics & Diagnostics sector, with pharmaceuticals, regenerative medicine, as well as diagnostic technology companies holding the interest of investors, evidence that New Zealand's growing technical capability in this field is being recognised and rewarded.

Forty percent of the 185 companies profiled in this report are Device manufacturers, however only 31% of the deals made were with Device manufacturers. The Digital Health and Health IT category is similarly attracting just over a quarter of the deals made despite making up over 40% of the 185 companies. This suggests there is significant investment opportunity in these categories.

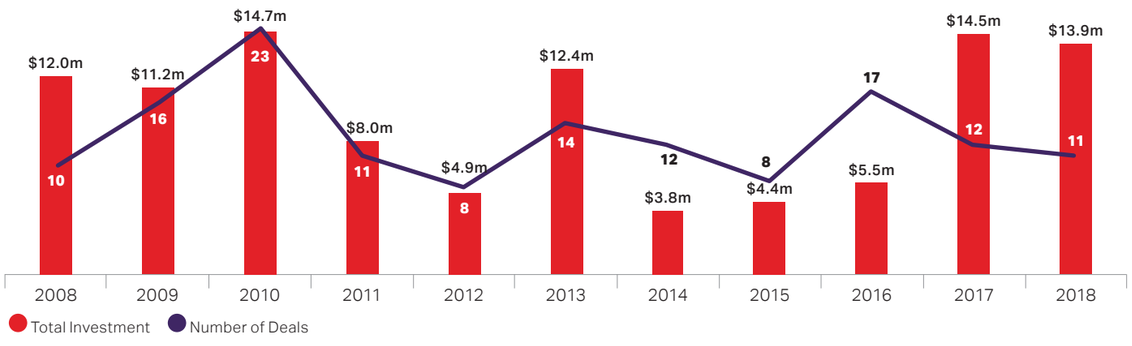
Institutional Investment into Health Technology Companies (by Category)



NZ Early Stage HealthTech Investment landscape

Angel investment in New Zealand HealthTech companies is variable, small, and there is no clear relationship between the number of deals and the total value of investment. For example, in 2017 a single investment of $8m was made into Kea Therapeutics care of Brandon Capital (an Australian VC firm). This single deal accounts for more than half the total recorded investment in 2017. This is against the backdrop of consistently increasing levels of investment in the wider technology sector in New Zealand. In 2018, we saw angel investment in NZ tech companies increase by 31%* with the average deal size breaking $1m*. This highlights the funding gap in the HealthTech sector. This, coupled with the fact that there are a relatively small number of angel investors involved in HealthTech, suggests that investors are highly selective, and their approach varies between investing more deeply in the companies they choose versus spreading their investments more widely, possibly reflecting the comfort or lack of comfort of investors in this sector. There is a pressing need for the sector to systematically address this funding deficit.

Total value of angel investment and number of deals over the last 10 years in HealthTech*



* Angel investment figures are for the calendar year. Source: Angel Investment Data: PWC/Angel Association NZ (2018). The figures pertain to early stage technology companies with HealthTech forming a subsegment of these.

Institutional Investors in **New Zealand**

NZ INVESTOR	TYPE	NUMBER OF DEALS	DEVICES	THERAPEUTICS & DIAGNOSTICS	DIGITAL HEALTH & HEALTH IT
NZVIF	**VC**	**27**	**Yes**	**Yes**	**Yes**
Cure Kids Venture	**VC**	**21**	**Yes**	**Yes**	**Yes**
Pacific Channel	**VC**	**10**	**Yes**	**Yes**	**Yes**
Powerhouse Ventures	**Incubator**	**7**	**Yes**	**Yes**	**Yes**
Ice Angels	**Angel**	**5**	**Yes**	**Yes**	**Yes**
Angel HQ	Angel	<5	Yes	Yes	Yes
K1W1	VC	<5	Yes	Yes	
Pioneer Capital	Private Equity	<5	Yes		Yes
Enterprise Angels	Angel	<5	Yes		Yes
Spark	VC	<5			Yes
Tahua Ventures	VC	<5	Yes	Yes	
AstroLab	Incubator	<5			Yes
Canterbury Angels	Angel	<5		Yes	
Matu Fund	VC	<5	Yes	Yes	
MIG Angels	Angel	<5		Yes	Yes
Movac	VC	<5		Yes	
Snowball Effect	VC	<5	Yes	Yes	
Sparkbox Ventures	VC	<5		Yes	Yes
Arc Angels	Angel	<5		Yes	
Direct Capital	Private Equity	<5		Yes	
Eden Ventures	VC	<5	Yes		
Flying Kiwi Angels	Angel	<5	Yes		
GD1	VC	<5	Yes		
Impact Enterprise Fund	VC	<5			Yes
Invest South	Private Equity	<5		Yes	
Jasmine Investments	VC	<5			Yes*
Launch Taranaki	Angel	<5			Yes
Nelson Angels	Angel	<5	Yes		
Pan Pacific	VC	<5	Yes		
Punakaiki Fund	VC	<5			Yes
Rangatira	Private Equity	<5			Yes
Waterman Private Capital	Private Equity	<5			Yes
WNT Ventures	VC	<5	Yes		

"The HealthTech sector in New Zealand benefits from a well-formed and connected healthcare system, highly regarded academic institutes and an investor friendly framework. These are key reasons why we back the companies we do – high growth companies such as Biomatters, which was acquired by a US company in 2019, and biotech company Aroa Biosurgery, which has the potential to go public in 2020, as well as other early stage companies including Avalia, Formus Labs and NZeno, to name just a few. These companies already have a solid footing on the pathway of innovation, enabling them to accelerate their development of solutions to some of the biggest global health issues."

RICHARD DELLABARCA, CEO New Zealand Venture Investment Fund.

Investor Profile:
Clanwilliam Group

IN 2014, CLANWILLIAM GROUP WAS CREATED FOLLOWING THE ACQUISITION OF TWO IRISH HEALTHCARE TECHNOLOGY COMPANIES, HELIX HEALTH AND SOCRATES HEALTHCARE.

In the years since, CEO Howard Beggs has grown the Clanwilliam portfolio to 15 businesses, with revenues close to €100m. In 2018, he secured financing deals to enable Clanwilliam to invest a further €300m over the subsequent three to five years.

In the last three years the group has invested in excess of NZ$100m in three NZ healthcare tech companies and is hoping to add more New Zealand companies to its portfolio in the near future.

Beggs makes regular business trips to NZ each year and is on the hunt for more local healthcare businesses, recently commenting, "it never ceases to impress me the level of innovation, and I like that about New Zealand."

Clanwilliam Group's portfolio is diversified across technology providers in both primary and secondary care settings, ranging from products and services designed for hospitals, medical specialists, primary care, payer systems, and aged care.

What do you find attractive about New Zealand HealthTech firms?

"New Zealand is internationally recognised for its innovative achievements in healthcare technology and for the digitization and sharing of healthcare data. As an investor in healthcare technology businesses around the world when we look to New Zealand we see a vibrant eco-system of businesses and therefore lots of investment opportunity. This makes the New Zealand market very attractive to us."

What would you tell others considering investing in NZ HealthTech businesses?

"Maintaining strong relationships and having a collaborative approach in the New Zealand healthcare technology market is critical. We continue to build on the long-standing relationships and partnerships that our businesses have built over the years with key stakeholders such as the Ministry of Health, DHBs, PHOs, other healthcare technology vendors and most importantly healthcare providers. We believe that it's also important to maintain the trusted product brands that our businesses have built, to back existing management and teams to grow the businesses and to invest in improving and expanding our product offerings."

HOWARD BEGGS, CEO, Clanwilliam Group

New Zealand Acquisitions:

Apr 2017 TONIQ

Clanwilliam Group acquires Toniq. Toniq is a leading developer of retail and pharmacy software that provides customers with tangible benefits such as speed and simplicity of operation, customer management programmes and dynamic stock control. Over 850 pharmacies in New Zealand currently use Toniq software for the management of dispensary and retail operations.

Sep 2017 HealthLink | Certainty in Care

Clanwilliam Group acquires HealthLink. HealthLink is a health-system integrator operating in New Zealand and Australia. Their vision is to enable medical practices to communicate electronically, reliably, and securely, with the rest of the health system. The company connects more than 15,000 medical organisations across Australia and New Zealand and exchanges over 100 million clinical messages annually.

May 2018 konnectNET

Clanwilliam Group acquires Konnect NET. Konnect NET, established in 2008, integrates into health organisations and insurers, allowing them to transact with clinical and financial information through a single secure interface. All major insurers and health care providers in New Zealand manage insurance medical requests using Konnect NET's platform. Impressive results have been delivered by the service, which has removed much of the paper and cost from the process, and improved average turnaround times from 20+ days to 5 days.

Feb 2020

HealthLink and Konnect Net merge to form Clanwilliam Health and acts as Clanwilliam Group's platform for further growth and investment in New Zealand and the wider Australasian market. Clanwilliam Health is led by the same team that has successfully led both, HealthLink and Konnect NET for several years. Michelle Creighton, CEO of HealthLink serves as CEO of Clanwilliam Health and Mike Weiss, CEO of Konnect NET serves as Deputy CEO.

Acquisitions of New Zealand
Health Technology Companies

2008

Jolimont Capital, Australian-based private equity fund, bought 70% of **Humanware**, a Christchurch-based manufacturer of high-tech aids for the blind.

2009

2010

UK-based **White Cloud Capital**, invests $20 million into Health IT company **Atlantis Healthcare** for a 50% stake of the company.

NZ-based **New Image Group**, acquires **Somnaceutics**, a Biotech company that has developed a natural, sleep-enhancing milk product.

2011

2012

Dentsply International, a US-based dental equipment manufacturer, acquires **Triodent.**

2013

2014

UK-based **MicroGEM** sets sight on sample pre-forensics markets after acquiring DNA-extraction company, **ZyGEM**.

Australia-based private equity **Archer Capital** buys **New Zealand Pharmaceuticals** for $182 million.

2015

UK-based motion capturing technology company **Vicon Motion Systems** acquires university spin-out **IMeasureU** to complement its inertial measurement unit technology.

2016

UK-based **Union MedTech** buys exoskeleton manufacturer **REX Bionics.**

2017

2018

Clanwilliam Group, a health technology company mergers & acquisitions specialist, acquires three New Zealand-based healthcare companies: medical messaging provider **HealthLink**, health retail software provider **Toniq**, and **Konnect NET** which interfaces between health organisations and insurers.

2019

Orion Health sells a majority stake of its Rhapsody business to UK-based private equity firm, **HgCapital.**

Sensor Holdings acquires wearable sensors developer **StretchSense**, a deal that was led by seed investment fund **Global From Day One**.

2020

Increased Support Now Available for **NZ HealthTech Start-Ups**

CALLAGHAN INNOVATION LAUNCHES NEW HEALTHTECH ACTIVATOR INITIATIVE FOR 2020

In 2020, budding New Zealand HealthTech startups will have even stronger support to help turn technology and science into successful businesses thanks to the introduction of a new HealthTech Activator initiative by Callaghan Innovation.

"There are opportunities for New Zealand to create more successful HealthTech startups, but there is a wider need to pull together support across the sector, which has more complex, expensive, and riskier paths to commercialisation," said Vic Crone, CEO of Callaghan Innovation, which launched the initiative in December 2019.

Ms. Crone says the idea is to speed up the journey of HealthTech start-ups through better connections, demystifying commercial avenues, and reducing risks.

"Innovators need the right support in the early phases of their business development, and we want to grow that capability in the eco-system."

VIC CRONE, CEO, Callaghan Innovation

What is the HealthTech Activator?

The HealthTech Activator is a coordinated, eco-system-wide support mechanism led by Callaghan Innovation, working closely with CMDT and MedTech CoRE, to drive the commercialisation of HealthTech and growth of emerging New Zealand HealthTech companies. It will make it easier for HealthTech startups to find and access the support they need to turn their health innovation into successful businesses.

The HTA aims to:

- Play a leadership role by driving greater collaboration, connectivity, and commercialisation rhythm at an eco-system-wide level in partnership with existing stakeholders, including tertiary, clinical, and agency.
- Develop programmes and services in conjunction with stakeholders from across the sector that prepare start-ups for international commercialisation.
- Provide a point of coordination and connectivity for the sector, including gathering and organising data and sector intelligence.

How much HTA funding has been allocated and when will it begin?

The initiative has been allocated NZ$2m over four years ($500,000 a year) for staffing, operational costs, and programme support around key aspects of early stage funding and capital planning, regulatory, reimbursement, and clinical trial activity. Work has begun in this space as the HealthTech Activator is an ongoing initiative of work and collaboration.

While the Activator support services will be virtually accessible across the nation, Callaghan Innovation anticipates establishing two physical nodes to provide a location for early stage HealthTech companies to network, hot desk, or co-locate for short periods.

Read more about the initiative here:
https://www.callaghaninnovation.govt.nz/news-and-events/increased-support-nz-deep-tech-startups

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The Eco-System

PHOTO CREDIT: Matt Crawford & Auckland Bioengineering Institute.

New Zealand **HealthTech Eco-System**

A broad sample of the organisations that together form New Zealand's HealthTech eco-system.

Science Excellence
Our Standing in the World

NEW ZEALAND'S VIBRANT ECO-SYSTEM OF HEALTHTECH COMPANIES AND THEIR ASSOCIATED AGENCIES, COMBINED WITH A RANGE OF SUPPORTIVE GOVERNMENT POLICIES, ARE CREATING AN ENVIRONMENT BUILT ON STRONG RESEARCH CAPABILITIES AND SCIENTIFIC EXCELLENCE, WHICH IS ENABLING NEW ZEALAND TO STRATEGICALLY POSITION ITSELF TO SUCCEED ON THE INTERNATIONAL STAGE.

Science Excellence at Our Universities

In 2020, all eight of New Zealand universities were ranked in the Top 500 in the QS World University rankings, with the top-ranked position remaining with the University of Auckland at 83.

With the growth and further maturation of New Zealand's education system, our universities are developing more defined research capabilities and facilities in areas relevant to health and medical technology innovation.

- The Auckland Bioengineering Institute at University of Auckland is a world leader in the field of computational physiology. Coupled with its instrumentation development skills, its research is aimed at understanding the human body to improve medical diagnosis and treatment of injury and disease.
- The Auckland University of Technology is New Zealand's youngest university. It is an international leader in sports and physical activity research which is being translated into technologies for health and wellbeing including rehabilitation recovery from stroke and brain injuries.
- The University of Canterbury specialises in merging clinical data and computational modeling for clinical application via in-silico virtual patients used to personalise and optimise care, including clinical trial and technology validation. It does this in close collaboration with the University of Otago Christchurch, the Canterbury District Health Board, and a range of international partners.
- The University of Otago is recognised for its work in pharmaceutical formulation, diagnostic biomarker research, and is endorsed for the cutting-edge technologies of tissue engineering and nanomedicine, including 3D-bioprinting and spectral x-ray bioimaging.
- The School of Design Innovation at Victoria University of Wellington has helped change New Zealand's approach to early stage medical technology translation and development. It combines human-centred design approaches with novel applications of 3D printing technologies to improve patient-clinician interactions and promote the positive impact of medical devices, services, and technologies.
- The Universities of Auckland and Otago houses the only two medical schools in New Zealand. The University of Auckland has 10 clinical campuses and training sites around the North Island associated with the District Health Boards and hospitals. The University of Otago utilises its colocation with Dunedin, Wellington and Christchurch Hospitals for multidisciplinary research. The University of Otago Faculty of Dentistry (ranked 34th in the world) offers New Zealand's only dentistry training, while University of Auckland has the only optometry school.

Science Excellence at the CoRE

New Zealand's Tertiary Education Commission established the Centre of Research Excellence (CoRE) fund in 2001 to create an environment for collaborative research and knowledge transfer across the nation between research institutes and user groups. CoRE funding is contestable.

At present, New Zealand is hosting 10 CoREs around the country, funded to the end of 2020. The next round of CoRE applications is currently in progress and will be announced later in the year. Of the 10, Maurice Wilkins, Brain Research New Zealand, and MacDiarmid Institute for Advanced Materials and Nanotechnology are active in fundamental health research while the Dodd-Walls Centre for Photonic and Quantum Technologies is supporting various translational research projects relevant to medical technology innovation.

MedTech CoRE is the only CoRE solely dedicated to developing translational capability and opportunities for New Zealand in medical technologies. Hosted by the University of Auckland, it is founded on the CMDT partnership between the Universities of Auckland, Canterbury, and Otago, AUT, Victoria University of Wellington, and Callaghan Innovation.

MedTech CoRE applies proven science concepts to develop solutions to unmet clinical needs. The vibrant partnership has demonstrated sustained success and throughput of translational projects as a result of the on-going collaboration with research, clinical, and industry partners. Over the last five years, the CoRE has seeded almost 80 concepts in its contestable translational programme, which has resulted in 11 start-ups. Alongside funding, the CoRE has also provided programmes to upskill its community to help accelerate translation of CoRE research into clinic and commercial opportunities.

The National Science Challenge

New Zealand's Ministry of Business, Innovation and Employment (MBIE) founded the National Science Challenge (NSC) in 2014, to address the biggest science-based challenges identified by the government.

The NSC is separated into 11 broad challenge categories with government investment of $680m over 10 years between 2014 to 2024. Within the 11 challenges, several seek solutions for improving health and wellbeing, including High-value Nutrition, Healthier Lives, Ageing-Well, A Better Start, and Science for Technological Innovation (SfTI). Of those, the SfTI challenge has a strong translational research component, with a focus on materials, manufacturing and design, sensors, robotics and automation, and IT data analytics and modeling, including a medical technology spearhead.

It is estimated that a total of $290.7m will be invested in these health-related challenges over the decade, making up 42.8% of the total NSC funding.

Precision Driven Health partnership

The Precision Driven Health partnership (PDH), established in 2016, is an ambitious health IT data science research initiative bringing together health providers, universities, and commercial opportunities for New Zealand. It is a public-private programme founded by Orion Health, the University of Auckland, and Waitemata District Health Board, to develop new tools that use integrated data about an individual from various sources to provide more targeted healthcare.

The partners of the PDH will partially fund the alliance with a total of $23m over the seven years, with the Ministry of Business Innovation and Employment making remaining contributions of $14m.

Other funding mechanisms

Aside from the above, the New Zealand government also offers a range of funding mechanisms to help accelerate science and innovation that align with the nation's economic and technology goals.

Translation and innovation

The Ministry of Business Innovation and Employment Commercialisation Partner Network (CPN) was established in 2010 to translate science findings into commercially viable products through an integrated approach in commercialisation activities to create scale, increase capability, and improve collaboration in the New Zealand science and innovation eco-system. The Kiwi Innovation Network (KiwiNet) and Return on Science (via Auckland UniServices) are key partners to the CPN supporting universities, Crown Research Institutes, and other publicly funded research institutes. Alongside the CPN is the PreSeed Accelerator Fund (PSAF) which provides project funding. The government boosted the the PSAF fund by an extra $8.5m over two years in 2019.

THE DUNEDIN MULTIDISCIPLINARY HEALTH AND DEVELOPMENT STUDY

New Zealand continues to exemplify its science excellence through research and innovation outputs that have been internationally recognised. The Dunedin Multidisciplinary Health and Development Study is arguably one of the world's most influential scientific studies conducted since 1972-73. The longitudinal study consisted of 1037 participants, the most to ever be recruited for a study of this type.

The study characterized the prevalence of health and developmental problems in three year olds in association with perinatal, family, and experiential problems, with participants being assessed at ages 3, 5, 7, 9, 11, 13, 15, 18, 21, 26, 32 and, most recently, at age 38 (2010-12).

With a 96% retention rate of study participants in even the most recent assessments, the study marks a remarkable scientific achievement for New Zealand and has resulted in the production of over 1,200 research articles, reports, and books regarding the long-term development of humans.

Over 45 years of research efforts have been dedicated to the study, making it one of New Zealand's "international treasures" and paving the way for future research excellence.

Science Funding

The Ministry of Business Innovation and Employment (MBIE) is the largest research funder in New Zealand. Of the contestable funds, the Endeavour Fund supports projects based on science excellence and a broad range of impacts while the Catalyst fund helps New Zealand researchers initiate, develop, and foster collaborations that leverage international science excellence.

The Health Research Council (HRC) is dedicated to research that has the potential to improve health outcomes and the delivery of healthcare. It ensures that funded projects align with the research interests in biomedical, clinical, public health, and health services. There is strong support for research that improves Māori and Pacific health outcomes.

The Marsden Fund, administered by the Royal Society of New Zealand, is a significant funding stream that has developed the fundamental science platform for health innovation in the country. The Marsden Fund awards projects in science, engineering, maths, social sciences, and humanities and represents the highest standard of research excellence.

Te Pūnaha Hihiko: Vision Mātauranga is MBIE's dedicated funding for the development of people and organisations to unlock the science and innovation potential of Māori knowledge, resources, and people to assist New Zealanders to create a better future. This funding has successfully created links between the science and Māori worlds to develop capabilities and economic opportunities for Māori.

New Zealand:
Open for Business

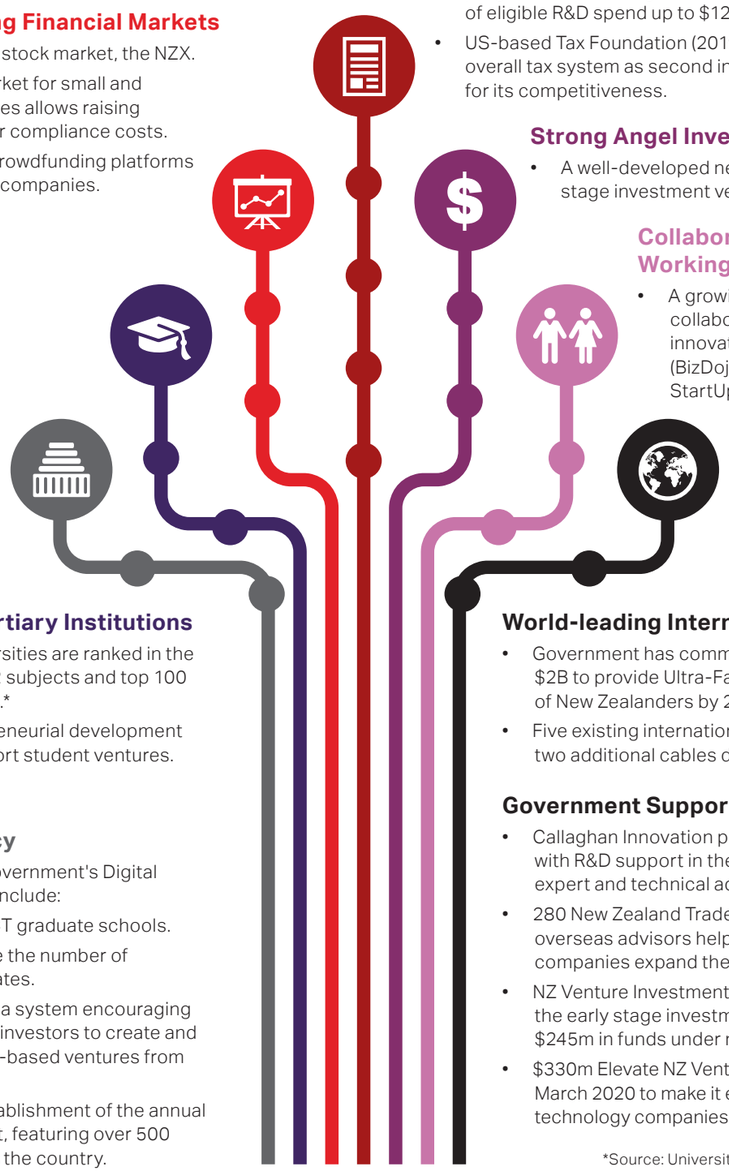
A WELL ESTABLISHED ECO-SYSTEM SUPPORTS NEW ZEALAND'S TECHNOLOGY INDUSTRY GROWTH.

Regional Development Agencies

17 regional Economic Development Agencies provide local support to technology companies.

Mature & Emerging Financial Markets

- A long-established stock market, the NZX.
- The NXT public market for small and emerging businesses allows raising of capital with lower compliance costs.
- Five active equity crowdfunding platforms to fund early stage companies.



Simple, Predictable and Fair Tax Environment

- No general capital gains tax.
- Establishment in 2019 of the R&D tax incentive programme, providing a tax credit at a rate of 15% of eligible R&D spend up to $120 million.
- US-based Tax Foundation (2019) ranks New Zealand's overall tax system as second in the developed world for its competitiveness.

Strong Angel Investor Network

- A well-developed network exists of early-stage investment vehicles for seed capital.

Collaborative Working Spaces

- A growing number of collaborative workspaces and innovation hubs in all regions (BizDojo, Generator, GridAKL, StartUp Dunedin, and more.)

World-leading Tertiary Institutions

- New Zealand universities are ranked in the world's top 50 in 22 subjects and top 100 across 39 subjects.*
- Numerous entrepreneurial development programmes support student ventures.

Government Policy

Initiatives within the Government's Digital Economy Programme include:

- Establishment of ICT graduate schools.
- Funding to increase the number of engineering graduates.
- A Global Impact Visa system encouraging entrepreneurs and investors to create and support innovation-based ventures from New Zealand.
- Supporting the establishment of the annual Techweek NZ event, featuring over 500 tech events across the country.

World-leading Internet Speeds

- Government has committed to spend over $2B to provide Ultra-Fast Broadband to 80% of New Zealanders by 2022.
- Five existing international fibre cables plus two additional cables due to go live shortly.

Government Support Agencies

- Callaghan Innovation provides companies with R&D support in the form of grants and expert and technical advice.
- 280 New Zealand Trade & Enterprise (NZTE) overseas advisors help New Zealand companies expand their offshore operations.
- NZ Venture Investment Fund (NZVIF) supports the early stage investment market with $245m in funds under management.
- $330m Elevate NZ Venture Fund launched in March 2020 to make it easier for high-potential technology companies to raise money.

*Source: Universities New Zealand, Nov 2018.

SANDI DEMPSEY, Senior Scientist for Aroa Biosurgery looking at cell material in a laboratory

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TIN200 HealthTech Company Profiles

TIN200 HealthTech
Company Profiles

Profile Directory

ADEPT MEDICAL — HEALTHTECH RANK: 21

TIN 2019 RANK: 195
REV 2019 ($000): $4,100
CEO: Murray Fenton

DESCRIPTION: Specialist medical plastics and composites manufacturer.
KEY PRODUCTS: Unique medical patient positioning devices.
MARKET SECTOR: Devices
OWNERSHIP: Private
STAFF EMPLOYED: 11
FORMATION: 2003
RANK 2018: New Entrant

POSTAL ADDRESS: PO Box 10075, Dominion Road, Mt Eden, Auckland 1446
PHYSICAL ADDRESS: 2-6 McDonald Street, Morningside, Auckland
PHONE: +64 (9) 815 2999
www.adeptmedical.co.nz

AROA BIOSURGERY — HEALTHTECH RANK: 8

TIN 2019 RANK: 95
REV 2019 ($000): $24,189
CEO: Brian Ward

DESCRIPTION: Regenerative tissue substitutes.
KEY PRODUCTS: Endoform Natural and Endoform Antimicrobial
MARKET SECTOR: Diagnostics & Therapeutics
OWNERSHIP: Investment-backed Private
STAFF EMPLOYED: 110
FORMATION: 2007
RANK 2018: New Entrant
BEST BUSINESS DECISION 2019: Becoming a world leader in providing high performance affordable tissue repair and regeneration products which allow many more patients to have significantly better healing outcomes.

POSTAL ADDRESS: PO Box 107111, Auckland Airport, Auckland 2150
PHYSICAL ADDRESS: 2 Kingsford Smith Place, Auckland
PHONE: +64 (9) 869 3035
www.aroabio.com

AFT PHARMACEUTICALS — HEALTHTECH RANK: 5

TIN 2019 RANK: 33
REV 2019 ($000): $85,100
CEO: Dr. Hartley Atkinson

DESCRIPTION: Pharmaceutical development and manufacturer.
KEY PRODUCTS: Maxigesic and Maxigesic IV, NasoSURF, Pascomer, Crystaderm, and HYLO Eye Drops.
MARKET SECTOR: Diagnostics & Therapeutics
OWNERSHIP: Public
STAFF EMPLOYED: 83
FORMATION: 1997
RANK 2018: 31
BEST BUSINESS DECISION 2019: Returning to operating profit.

POSTAL ADDRESS: PO Box 33203, Takapuna, Auckland 0740
PHYSICAL ADDRESS: Level 1, 129 Hurstmere Road, Takapuna, Auckland
PHONE: +64 (9) 488 0232
www.aftpharm.com

BIOMATTERS — HEALTHTECH RANK: 15

TIN 2019 RANK: 150
REV 2019 ($000): $10,294*
CEO: Brett Ammundsen

DESCRIPTION: Bioinformatics software for molecular biology and genomics.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Foreign Owned
STAFF EMPLOYED: 65
FORMATION: 2005
RANK 2018: 167

POSTAL ADDRESS: PO Box 5677, Wellesley Street, Auckland 1141
PHYSICAL ADDRESS: Level 2, 18 Shortland Street, Auckland Central, Auckland
PHONE: +64 (9) 379 5064
www.geneious.com

COMRAD MEDICAL SYSTEMS — HEALTHTECH RANK: 16

TIN 2019 RANK: 156
REV 2019 ($000): $9,600
CEO: Elizabeth Delahunty

DESCRIPTION: Software solutions for the radiology market.
KEY PRODUCTS: Comprehensive radiology information solution and professional services.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Private
STAFF EMPLOYED: 57
FORMATION: 1987
RANK 2018: 154
BEST BUSINESS DECISION 2019: Commitment to our new Aura RIS portfolio and services to add increasing value to our current and future customers.

POSTAL ADDRESS: PO Box 1206, Christchurch 8140
PHYSICAL ADDRESS: Level 4, 120 Hereford Street, Christchurch
PHONE: +64 (3) 366 4881
www.comrad.co.nz

*Estimated revenue.

ATLANTIS HEALTHCARE — HEALTHTECH RANK: 7

TIN 2019 RANK: 88
REV 2019 ($000): $26,617*
CEO: Jonny Duder

DESCRIPTION: Adherence programmes for medical treatment.
KEY PRODUCTS: Patient adherence programmes.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Foreign Owned
STAFF EMPLOYED: 200
FORMATION: 1993
RANK 2018: 71

POSTAL ADDRESS: PO Box 37012, Parnell, Auckland 1151
PHYSICAL ADDRESS: Level 1, 435 Khyber Pass Road, Newmarket, Auckland
PHONE: +64 (9) 363 4838
www.atlantishealthcare.com

CANTERBURY SCIENTIFIC — HEALTHTECH RANK: 17

TIN 2019 RANK: 166
REV 2019 ($000): $8,590*
CEO: Clive Seymour

DESCRIPTION: Manufacture of liquid and freeze dried controls for haematology and biochemistry diagnostic tests.
MARKET SECTOR: Diagnostics & Therapeutics
OWNERSHIP: Private
STAFF EMPLOYED: 23
FORMATION: 1985
RANK 2018: 158

POSTAL ADDRESS: 71 Whiteleigh Avenue, Addington, Christchurch 8011
PHYSICAL ADDRESS: 71 Whiteleigh Avenue, Addington, Christchurch
PHONE: +64 (3) 343 3345
www.canterburyscientific.com

DOUGLAS PHARMACEUTICALS — HEALTHTECH RANK: 2

TIN 2019 RANK: 7
REV 2019 ($000): $236,800
CEO: Jeff Douglas

DESCRIPTION: Development and manufacture of pharmaceuticals.
KEY PRODUCTS: Medico, Phloe, Clinicians, Isotretinoin, Clozapine, Azathioprine.
MARKET SECTOR: Diagnostics & Therapeutics
OWNERSHIP: Private
STAFF EMPLOYED: 755
FORMATION: 1967
RANK 2018: 7
BEST BUSINESS DECISION 2019: Proceeding to clinical trial for novel indications for two repurposed molecules.

POSTAL ADDRESS: PO Box 45027, Te Atatu Peninsula, Auckland 0651
PHYSICAL ADDRESS: 2 Te Pai Place, Henderson, Auckland
PHONE: +64 (9) 835 0660
www.douglas.co.nz

TIN200 HealthTech
Company Profiles

DYNAMIC CONTROLS
HEALTHTECH RANK: 6

TIN 2019 RANK: 38
REV 2019 ($000): $75,315

CEO: Simon Rees

DESCRIPTION: Electronic controls for power wheelchair and mobility scooters.
MARKET SECTOR: Devices
OWNERSHIP: Foreign Owned
STAFF EMPLOYED: 297
FORMATION: 1971
RANK 2018: 39

POSTAL ADDRESS: PO Box 1866, Christchurch 8140
PHYSICAL ADDRESS: 39 Princess Street
PHONE: +64 (3) 962 2519
www.dynamiccontrols.com

FISHER & PAYKEL HEALTHCARE
HEALTHTECH RANK: 1

TIN 2019 RANK: 3
REV 2019 ($000): $1,070,000

CEO: Lewis Gradon

DESCRIPTION: Medical device manufacture and sales.
KEY PRODUCTS: Respiratory products in hospitals and the home, and obstructive sleep apnea products.
MARKET SECTOR: Devices
OWNERSHIP: Public
STAFF EMPLOYED: 4547
FORMATION: 1954
RANK 2018: 3
BEST BUSINESS DECISION 2019: We have a long term strategy which is focused on assisting clinicians around the world to deliver the best possible care through continuous product improvement, pioneering new therapies, and changing clinical practice.

POSTAL ADDRESS: PO Box 14348, Panmure, Auckland 1741
PHYSICAL ADDRESS: 15 Maurice Paykel Place, East Tamaki, Auckland
PHONE: +64 (9) 574 0100
www.fphcare.com

HOWARD WRIGHT
HEALTHTECH RANK: 11

TIN 2019 RANK:: 129=
REV 2019 ($000): $14,500

CEO: Bruce Moller

DESCRIPTION: Medical beds and stretchers.
KEY PRODUCTS: Medical beds and stretchers.
MARKET SECTOR: Devices
OWNERSHIP: Private
STAFF EMPLOYED: 50
FORMATION: 1963
RANK 2018: 132

POSTAL ADDRESS: PO Box 3003, Fitzroy, New Plymouth 4341
PHYSICAL ADDRESS: 17 Paraite Road, Bell Block, New Plymouth
PHONE: +64 (6) 755 0976
www.howardwrightcares.com

INTRAHEALTH SYSTEMS
HEALTHTECH RANK: 12

TIN 2019 RANK: 142
REV 2019 ($000): $11,916*

CEO: Dr. Mark Matthews

DESCRIPTION: Case management software for outpatient care.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Private
STAFF EMPLOYED: 90
FORMATION: 1997
RANK 2018: 141

POSTAL ADDRESS: PO Box 33737, Takapuna, Auckland 0740
PHYSICAL ADDRESS: 5/19 Como Street, Takapuna, Auckland
PHONE: +64 (9) 480 7442
www.intrahealth.com

*Estimated revenue.

KONNECT NET
HEALTHTECH RANK: 10

TIN 2019 RANK: 124=
REV 2019 ($000): $15,000

CEO: Mike Weiss

DESCRIPTION: Software and services to streamline interactions between the insurance and healthcare sectors.
KEY PRODUCTS: SureMed, Digital Claims Journey, SpeedReader, e-App.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Foreign Owned
STAFF EMPLOYED: 33
FORMATION: 2008
RANK 2018: 112
BEST BUSINESS DECISION 2019: Prioritising our SpeedReader product. It has the potential to create immense value for our customers and we're excited to make that happen for them.

POSTAL/ PHYSICAL ADDRESS: 27 College Hill, Freemans Bay, Auckland 1011
PHONE: +64 (9) 302 3575
www.konnectnet.com

MOLEMAP NZ
HEALTHTECH RANK: 14

TIN 2019 RANK: 149
REV 2019 ($000): $10,326*

CEO: Adrian Bowling

DESCRIPTION: Skin cancer screening through digital melanogramming.
KEY PRODUCTS: Medical cameras and software.
MARKET SECTOR: Devices
OWNERSHIP: Private
STAFF EMPLOYED: 70
FORMATION: 1997
RANK 2018: 147

POSTAL ADDRESS: PO Box 2810, Shortland Street, Auckland 1140
PHYSICAL ADDRESS: Unit L, 383 Khyber Pass Road, Newmarket, Auckland
PHONE: +64 (9) 520 8220
www.molemap.co.nz

ORION HEALTH
HEALTHTECH RANK: 3

TIN 2019 RANK: 20
REV 2019 ($000): $117,300

CEO: Ian McCrae

DESCRIPTION: Clinical workflow and health sector technology.
KEY PRODUCTS: Amadeus, Coordinate, Portals, Consult, Enterprise, Engage, Communicate, RPM, Medicines.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Private
STAFF EMPLOYED: 685
FORMATION: 1993
RANK 2018: 10=
BEST BUSINESS DECISION 2019: Completing the strategic review, which resulted in building a competitive and sustainable business.

POSTAL ADDRESS: PO Box 8273, Symonds Street, Auckland 1050
PHYSICAL ADDRESS: Orion House, 181 Grafton Road, Auckland
PHONE: +64 (9) 638 0600
www.orionhealth.com

*Estimated revenue.

MEDTECH GLOBAL
HEALTHTECH RANK: 9

TIN 2019 RANK: 101
REV 2019 ($000): $22,059*

CEO: Vino Ramayah

DESCRIPTION: Health technology software developer.
KEY PRODUCTS: Evolution General Practice, Evolution Specialist, Evolution Allied Health, Medtech32, Manage My Health, and VitelMed.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Private
STAFF EMPLOYED: 65
FORMATION: 1984
RANK 2018: 85

POSTAL ADDRESS: PO Box 3329, Shortland Street, Auckland 1140
PHYSICAL ADDRESS: Level 1, 48 Market Place, Auckland Central, Auckland
PHONE: +64 (9) 358 1123
www.medtechglobal.com

NZ PHARMACEUTICALS
HEALTHTECH RANK: 4

TIN 2019 RANK: 30
REV 2019 ($000): $97,358*

CEO: Andrew Lewis

DESCRIPTION: Pharmaceuticals manufacturer.
MARKET SECTOR: Diagnostics & Therapeutics
OWNERSHIP: Investment-backed Private
STAFF EMPLOYED: 156
FORMATION: 1971
RANK 2018: 29

POSTAL ADDRESS: PO Box 1869, Palmerston North Central, Palmerston North 4440
PHYSICAL ADDRESS: 68 Weld Street, RD2, Linton, Palmerston North
PHONE: +64 (6) 952 3800
www.nzp.co.nz

PACIFIC EDGE
HEALTHTECH RANK: 22

TIN 2019 RANK: 198
REV 2019 ($000): $3,817

CEO: David Darling

DESCRIPTION: Cancer Diagnostics.
KEY PRODUCTS: Cxbladder Detect, Cxbladder Triage, Cxbladder Monitor, Cxbladder Resolve.
MARKET SECTOR: Diagnostics & Therapeutics
OWNERSHIP: Public
STAFF EMPLOYED: 58
FORMATION: 2001
RANK 2018: 195

POSTAL ADDRESS: PO Box 56, Dunedin 9016
PHYSICAL ADDRESS: 87 St David Street, Centre of Innovation, Dunedin 9016
PHONE: +64 (3) 479 5800
www.pacificedgedx.com

TIN200 HealthTech
Company Profiles

SYSMEX
HEALTHTECH RANK: 13

TIN 2019 RANK: **148**
REV 2019 ($000): **$10,462***

CEO: Arjit Bhana

DESCRIPTION: Software for pathology laboratories.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Foreign Owned
STAFF EMPLOYED: 56
FORMATION: 1986
RANK 2018: 145

POSTAL ADDRESS: PO Box 26085, Epsom, Auckland 1344
PHYSICAL ADDRESS: 382-386 Manukau Road, Epsom, Auckland
PHONE: +64 (9) 630 3554
www.sysmex.co.nz

TITANIUM SOLUTIONS
HEALTHTECH RANK: 19

TIN 2019 RANK: **188=**
REV 2019 ($000): **$5,000***

CEO: Paul Weatherly

DESCRIPTION: Sophisticated dental software solutions.
KEY PRODUCTS: Titanium oral health management software.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Private
STAFF EMPLOYED: 33
FORMATION: 2004
RANK 2018: New Entrant

POSTAL ADDRESS: PO BOX 114, Albany Village, Albany, Auckland
PHYSICAL ADDRESS: 4 Tarndale Grove, Auckland
PHONE: +64 (9) 414 3900
www.titanium.solutions

VOLPARA HEALTH TECHNOLOGIES
HEALTHTECH RANK: 20

TIN 2019 RANK: **188=**
REV 2019 ($000): **$5,000**

CEO: Ralph Highnam

DESCRIPTION: Software for the detection of breast cancer.
KEY PRODUCTS: VolparaDensity, VolparaEnterprise.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Public
STAFF EMPLOYED: 160
FORMATION: 2009
RANK 2018: 199

POSTAL ADDRESS: PO Box 24404, Manners Street, Wellington 6142
PHYSICAL ADDRESS: Level 7, 44 Victoria Street, Wellington
PHONE: +64 (4) 499 6029
www.volparasolutions.com

WHĀNAU TAHI
HEALTHTECH RANK: 18

TIN 2019 RANK: **168**
REV 2019 ($000): **$8,315***

CEO: Sandy Brown

DESCRIPTION: Connected healthcare solutions.
KEY PRODUCTS: Navigator, Connected Care, Socrates, B4SchoolChecks, and NZePS.
MARKET SECTOR: Digital Health & Health IT
OWNERSHIP: Private
STAFF EMPLOYED: 32
FORMATION: 1992
RANK 2018: 157

POSTAL ADDRESS: P.O Box 21081, Henderson, Auckland 0650
PHYSICAL ADDRESS: 16 Catherine Street, Henderson, Auckland
PHONE: 0800 000 472
www.whanautahi.com

*Estimated revenue.

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Early Stage HealthTech Companies Directory

A Selection of Early Stage **HealthTech Companies in New Zealand**

What is a TIN "Early Stage HealthTech Company"?

While revenues, investment stage, and employment numbers vary significantly between TIN Early Stage Companies, all have the following in common. They:

- Operate in the 'Digital Health & Health IT', 'Therapeutics & Diagnostics', or 'Devices' primary sectors
- Have originated in New Zealand, and still maintain a meaningful presence there.
- Are developing (or have developed) their own intellectual property.
- Are currently at an early stage in their company lifecycle:

1. Development: Pre-revenue companies predominantly focused on developing their product/service offering for market.

2. Commercialisation: Companies with a developed product/service offering who are in the process of introducing it to market.

3. In market: Revenue generating companies with an established market offering.

The Insides Company

THE INSIDES COMPANY – FORMERLY, SURGICAL DESIGN STUDIO – IS A DEVELOPER AND MANUFACTURER OF REGULATED MEDICAL DEVICES THAT PROVIDE THERAPEUTIC CHYME REINFUSION SOLUTIONS FOR PATIENTS WITH GUT CONDITIONS INCLUDING ENTEROCUTANEOUS FISTULAS, BOWEL CANCER AND INFLAMMATORY BOWEL DISEASE.

The company's core product platform includes The Insides™ Solution[fi], which improves the health outcomes in patients with serious gut disease including enterocutaneous fistula. By restoring patient bowel continuity, the chyme reinfusion platform enables the patient to begin oral nutrition again, thereby reducing the risk of infection, sepsis, dehydration, kidney and liver damage.

Co-founded by Colorectal Surgeons Professor Ian Bissett and Associate Professor Greg O'Grady in 2017, with engineers Rob and John Davidson, the company is a spin-out of the University of Auckland and the MedTech Centre of Research Excellence (MedTech CoRE) and receives continued support from Callaghan Innovation.

With the new addition of CEO Garth Sutherland, The Insides Company is now set to launch their first product internationally, toward its goal of becoming the new standard for stoma-care.

In 2019, the company's products were granted entry into the United States Food and Drug Association Breakthrough Devices Programme. The company completed its first round capital raising of $4.3m in 2019, with strong support from Uniservices, Tuhua Ventures, Icehouse Ventures, NZ Venture Investment Fund, K1W1, Eden Ventures, as well as friends and family. In January 2020', the company also received ISO13485 certification for its quality management system.

This steadily increasing profile earned them a place on the *NZX Early Stage Companies* award-winners list in the 2019 TIN Report.

"Success for us will be strong earnings from supply of our high-quality proprietary products to the world's leading colorectal centres, to improve patient health around the world, distributed via a set of effective channel partners located in key export markets."

GREG O'GRADY
Co-founder of The Insides Company

JunoFem

JUNOFEM HAS DESIGNED *FEMFIT*®, A MEDICAL DEVICE CREATED AROUND THE CONCEPT OF 'KEGEL' EXERCISES TO EMPOWER WOMEN TO MORE EFFECTIVELY MANAGE THEIR PELVIC FLOOR HEALTH.

The device incorporates a patented design that uses sensor arrays to record pelvic floor contractions. The information recorded through the device is then transferred to the user's smartphone, which provides guidance, educational information, and corrective suggestions for improving their pelvic exercise techniques.

The company grew out of the Auckland Bioengineering Institute's implantable devices research group. Founded by Dr. Jennifer Kruger, Associate Professor David Budgett, and Professor Poul Nielsen, JunoFem has already achieved significant technical progress with the device and conducted various clinical trials with international health providers, validating the clinical efficacy and market need for the device.

JunoFem continues to grow ambitiously, continually improving its prototype design through user-experience feedback. As a University of Auckland and MedTech CoRE spin-out, the company has benefited from the ongoing research excellence and support of the University.

Myovolt

MYOVOLT IS A CHRISTCHURCH-BASED COMPANY THAT IS COMMERCIALISING A WEARABLE THERAPEUTIC DEVICE THAT USES VIBRATION THERAPY, DIRECTLY APPLIED TO THE BODY, TO ASSIST ATHLETES IN FASTER RECOVERY OF MUSCLES AND JOINTS FOLLOWING PHYSICAL ACTIVITY.

Founded by Steve Leftly and Dr. Dianne Jones, Myovolt has been developed by experts in wearable technology who previously created electronic performance enhancing garments for Olympic and elite athletes.

Myovolt delivers focal vibration to relieve muscle soreness and stiffness by stimulating blood flow, there by aiding faster recovery following sporting activity. The benefits of Myovolt have been tested, validated, and published by experts in sports physiology and recovery medicine.

Myovolt is currently undergoing a range of clinical trials in New Zealand and the US following promising results as a therapeutic treatment for a range of medical conditions such as Multiple Sclerosis, Peripheral Artery Disease, Diabetic Neuropathy, Parkinson's Disease, and Stroke Rehabilitation.

Myovolt has had scientific papers published in the Journal of Vascular Surgery, International Journal of Sports Medicine, European Journal of Applied Physiology, and has multiple ongoing clinical research trials.

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COMPANY NAME	CEO FULL NAME	FORMATION	LIFE STAGE	DESCRIPTION	PRIMARY SECTOR	PHONE	ADDRESS TO USE	WEBSITE
2Life	Stephen Katz	2004	Commercialisation	Mobile personal safety and medical alarm service.	Digital Health & Health IT		Level 1, 2 Princes St, Auckland 1010	**www.2life.co.nz**
AbleX Healthcare Ltd	Elliott Kernohan	2010	Commercialisation	Computer-based therapy games and handheld devices that provide physical and cognitive stimulation, to help recover everyday independence after stroke and brain injury.	Devices	+64 (9) 280 4356	4 Tarndale Grove, Rosedale, Auckland 0632	**www.ableX.healthcare**
Adherium	Arik Anderson	2001	In Market	Digital monitoring and services for patients with chronic conditions.	Digital Health & Health IT	+64 (9) 307 2771	Level 2, 204 Quay street, Auckland Central, Auckland 1010	**www.adherium.com**
Alimetry	Greg O'Grady	2019	Commercialisation	Medical equipments manufacturer.	Devices	+64 (27) 422 2989	Ground floor, Bioengineering House, 70 Symonds Street, Auckland Central, Auckland 1010	**www.alimetry.com**
Ambro Speak	Michael O'Kane	2008	Commercialisation	Communications device to amplify weak and whispered speech with CPAP and Bi-PAP respiratory masks.	Devices	+64 (3) 473 8083	41 Glendining Avenue, Dunedin 1024	**www.hispeak.co.nz**
AMS Ltd	Joseph Yip	1979	In Market	Software solutions and services company.	Digital Health & Health IT	+64 (9) 917 6500	94 Apollo Drive, Albany, Auckland 0632	**www.ams.co.nz**
Anzacare	Stephen Sexton	1979	In Market	Medical sensors and alarms for the detection of body fluids.	Devices	0800 374 753	13 Mahara Place, Waikanae, Wellington 9016	**www.dri-sleeper.com**
ARANZ Medical	Bruce Davey	2005	In Market	Technology-based solutions to improve healthcare.	Digital Health & Health IT	+64 (3) 374 6120	Level 1, 47 Hereford Street, Christchurch 8013	**www.aranzmedical.com**
AroTec Diagnostics	Bradley Winter	1996	In Market	Developing components for autoimmune diagnostics industry.	Diagnostics & Therapeutics	+64 (4) 569 0361	207 Gracefield Road , Gracefield, Lower Hutt 5010	**www.arodia.com**
Auramer Bio	Shalen Kumar	2015	Development	Custom development and biosensor solutions.	Diagnostics & Therapeutics	+64 (27) 436 6680	C Block, 69 Gracefield Road, Gracefield, Lower Hutt 0632	**www.auramerbio.com**
Avalia Immunotherapies	Shivali Gulab	2015	Commercialisation	Developing immune system modulators for targeted response to disease.	Diagnostics & Therapeutics	+64 (21) 241 5423	Gracefield Innovation Precinct, 69 Gracefield Road, Gracefield, Lower Hutt 0601	**www.avaliaimmunotherapies.com**
Avasa	Hans Kim	2018	Development	Novel surgical device to improve and simplify microsurgery.	Devices	+64 (21) 070 5946	6/2 Armoy Drive, East Tamaki, Auckland 2016	**www.avasa.io**
Avice	Eric Helms	2018	Development	Novel, fitness wearable that interfaces wirelessly with mobile technology and the cloud to track multiple indices of muscular performance.	Devices	+64 (27) 654 0018	Level 16, Wakefield Street, Auckland 8053	**www.avicewearables.com**
BeSure Solutions	Matt Hector-Taylor	2016	Commercialisation	Passive monitoring tool to help people with dementia to live independently and the people who care to be sure they are well.	Devices	+64 (21) 772 211	3 Eglinton Avenue, Mt Eden, Auckland 1024	**www.besuresolutions.com**
BM Enterprises	Brian Andrews	2000	In Market	Design and manufacture of custom-built furniture for special needs children and adults within the health and education systems, and the home environment.	Devices	+64 (9) 277 4782	22 Hillcrest Road, Papatoetoe, Auckland 8013	**www.specialneedz.co.nz**
Bodystance	Andrew Wallace	2010	In Market	A medical provider of holistic musculoskeletal-focused products and rehabilitation services.	Devices	+64 (21) 135 0986	Studio 9, 31 Dowling Street, Dunedin 9016	**www.bodystance.co.nz**
BPAC Clinical Solutions	Murray Tilyard	2015	In Market	Provider of electronic decision support and secure electronic transmission of medical data within New Zealand, Australia, and the UK.	Digital Health & Health IT	0800 633 236	10 George Street, Dunedin 0630	**www.bpacsolutions.co.nz**
BreatheEasy Therapeutics	Robert Elliot	2009	In Market	Inhaled medicine to assist people living with cystic fibrosis.	Diagnostics & Therapeutics		Level 5, The Shortland Centre, 55 Shortland Street, Auckland Central, Auckland 1010	**www.breatheeasytherapeutics.com**
Burmark Industries	Christoper Burr	1998	In Market	Custom medical beds, therapeutic tables, and bedside cabinets.	Devices	+64 (6) 755 9090	39 Connett Road West, Bell Block, New Plymouth 4373	**www.burmark.co.nz**
CatTrax	James McKelvie	2016	In Market	Web application designed to enable rapid access to surgery, improve visual outcomes and patient safety, and reduce surgical complications for ophthalmic treatment and surgery.	Digital Health & Health IT		41 Haverstock Road, Sandringham, Auckland 1010	**www.cattrax.co.nz**
Celo	Steve Vlok	2014	In market	Secure messaging for healthcare professionals.	Digital Health & Health IT	0800 235 600	Level 9, 4 Williamson Avenue, Auckland 8011	**www.celohealth.com**
Cemplicity	Nick Macdonald	2013	In-Market	Platform that captures patient feedback in order to understand both the stories and numbers and how to act at the right time and place to bring about improvement.	Digital Health & Health IT	0800 157 258	Level 1, 10 Customs St East, Auckland 1010	**www.cemplicity.com**
Change Healthcare	Kimber Rothwell	2012	In Market	Provider of revenue and payment cycle management and clinical information exchange solutions.	Digital Health & Health IT	+64 (3) 379 6662	79 Lichfield Street, Christchurch 8011	**www.changehealthcare.co.nz**
Chippur	Abbie O'Rourke	2017	In Market	Comprehensive workplace wellness solutions.	Digital Health & Health IT	+64 (22) 1537 890		**www.chippur.com**
Chiptech	Graeme Moore	2000	In Market	Electronics design and manufacturing of digital telecare/monitoring devices.	Devices	+64 (3) 384 7788	11a Settlers Crescent, Ferrymead, Christchurch 1010	**www.chiptech.co.nz**
Chitogel Ltd	Phil Royal	2014	Commercialisation	Postoperative hydrogel nasal dressing.	Diagnostics & Therapeutics	0800 742 448	139 Moray Place, Dunedin 9016	**www.chitogel.com**
Clever Medkits	Peter Montgomery	2013	In Market	Connected first aid kits that track equipment usage, incidents, and help with stock replenishment.	Devices		27 Kaikanui Street, Christchurch 7630	**www.clevermedkits.com**
Collagen Solutions NZ	Jamal Rushdy	2002	In Market	Producing custom formulations of medical-grade collagen biomaterials and tissues for use in medical devices	Diagnostics & Therapeutics	+64 6 327 8751	10 Hair Street, Marton, New Zealand 4710	**www.collagensolutions.com**
Complay Health	Hamed Minaeizaeim	2015	Commercialisation	Gamification to increase compliance with medical devices.	Digital Health & Health IT		Department of Computer Science, 38 Princes Street, Auckland 0602	
ConnectMed	Michael Inglis	2011	In Market	Online doctors appointments portal.	Digital Health & Health IT		PO Box 82-128, Highland Park, Auckland	**www.connectmed.co.nz**
Corneal Lens	Graeme Curtis	1961	In Market	Manufacturers regular and speciality corneal lense.	Devices	+64 (3) 366 6247	2 Ballarat Way, Wigram, Christchurch 3129	**www.corneal-lens.co.nz**
Cortell Health	Ernest Glad	1992	In Market	Health software.	Digital Health & Health IT	+64 (9) 280 4403	180 Johns Road, Northwood, Christchurch 8051	**www.cortellhealth.co**
CuroNZ	Frank Sieg	2010	Commercialisation	A clinical stage biotechnology company with a patent portfolio and platform of peptide/ peptidomimetic drugs relevant for the treatment of severe neurodegenerative diseases.	Diagnostics & Therapeutics	+64 (21) 500 453	173 Cames Road, Mangawhai 0975	**www.curonz.com**

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Decima Health	Iona Weir	2011	Commercialisation	Patented and clinically proven therapeutic for eczema.	Diagnostics & Therapeutics			**www.bionona.com**
Diasense	Kieran Jina	2017	Commercialisation	Molecular diagnostic company	Diagnostics & Therapeutics			
Doctor2Go	Michael Haskell	2014	In Market	Medical concierge service that lets patients consult GPs by video through their web browser or mobile phones.	Digital Health & Health IT	+64 (21) 065 3124	PwC Tower, 188 Quay Street, Auckland 1010	**www.doctor2go.co.nz**
Donovan Doogue	Sam Doogue	2002	Development	Designing of a novel rehabilitation system.	Devices			
Dr Info	Lynn Taylor	2007	In Market	Decision-support tool giving medical professionals access to health information from various data sources.	Digital Health & Health IT	+64 (4) 41 9353	Building B, 17 Corinthian Drive, Albany, Auckland 0632	**www.drinfo.co.nz**
EDDI	Mark Hildesley	2013	In Market	Evidence-based anaesthetic monitoring safety system that notifies users early about important changes in patient condition.	Digital Health & Health IT	+64 (21) 675 675	25 Rosario Crescent, Red Beach, Auckland 0932	**www.eddimed.com**
Elucimed	Terry O'Donnell	2017	In Market	Provides analytical healthcare solutions using physiological research.	Digital Health & Health IT	+64 27 204 1094	7a Blucher Avenue, Newtown, Wellington 6021	**www.elucimed.com**
Emergency Q	Morris Pita	2015	In Market	Digital service that reduces crowding in Hospital Emergency Departments (EDs) by providing data to patients allowing them to make informed decisions about where to seek treatment.	Digital Health & Health IT		Level 2 BHive Building, Smales Farm, 72 Taharoto Road, Takapuna, Auckland 0622	**www.emergencyq.com**
Endo Technologies	Murray Cooper	2014	Commercialisation	Developing a method for cleaning endoscopes that eliminates human fatigue, RSI, and potential errors from manual cleaning.	Devices		25 Hogarth Rise, West Harbour, Auckland 1010	**www.endotechnologies.co.nz**
Enigma Solutions	Mike Stanbridge	1996	In Market	Provider of clinical knowledge management and electronic clinical decision support systems for the health sector.	Digital Health & Health IT	+64 (9) 912 9100	E3, 17 Corinthian Drive, Albany, Auckland 0632	**www.enigma.co.nz**
Enztec	Iain McMillan	1990	In Market	Specialises in creating orthopaedic instrument solutions for implant companies and orthopaedic surgeons worldwide.	Devices	+64 (3) 348 0203	3/17 Print Place, Middleton, Christchurch 8024	**www.enztec.com**
Erudite Group	Murray Polson	2002	In Market	Software consultancy offering real-world knowledge of the medical field to deliver rational, patient-focussed solutions.	Digital Health & Health IT	+64 (9) 889 2450	91 Central Park Drive, Henderson, Auckland 0601	**www.eruditegroup.co.nz**
Exsurgo Rehab	Richard Little	2015	Commercilaisation	Develops and markets medical robotics that accelerate and improve recovery from stroke.	Devices		11J Piermark Drive, Rosedale, Auckland 7010	**www.exsurgorehab.com**
FirstCheck	Hayden Laird	2015	In Market	Providing quick and easy access to expert's opinions on skin lesions (moles and spots).	Digital Health & Health IT		369 Devon Street East, Strandon, New Plymouth 9092	**www.firstcheck.me**
FlexiMap	Dr. Peng Du	2016	In Market	Sensors for the diagnosis and management of GI motility disorders.	Devices	+64 (27) 422 2989	70 Symonds Street, Auckland 1010	**www.fleximap.co.nz**
Foot Bionics	Greg Woolman	2003	In Market	Premoulded, custom orthotics for foot pain and footwear.	Devices	+64 (3) 355 0669	Unit 4/35, Sir William Pickering Drive, Canterbury Technology Park, Christchurch 8053	**www.footbionics.com**
Footscience International	David Boyd	1981	In Market	Design and manufacturing orthotic products to help treat lower back and limb pain, to prevent injuries and falls and to provide greater comfort and performance.	Devices	0800 60 30 10	26 Dakota Crescent, Wigram, Christchurch 8042	**www.footscienceinternational.com**
Formus Labs	Ju Zhang	2016	Commercialisation	Providing cloud-based solutions for custom orthopaedic design.	Digital Health & Health IT	+64 (22) 605 3001	Level 1, 70 Symonds Street, Auckland 1010, New Zealand	**www.formuslabs.com**
Fraame Healthcare	Gavin Wright	2003	In Market	Health information case management and policy and compliance software.	Digital Health & Health IT	+64 (3) 377 7632	The Epic Centre, 96-106 Manchester St, Christchurch 8011	**www.fraame.com**
Health Kiosk	Angela Alvarado	2010	Commercialisation	Health monitoring systems providing individuals with the means to measure, track and manage their vital health parameters.	Devices	+64 (7) 864 7666	292 Hikuai Settlement Road, Road 1, Hikuai, 3579	**www.healthkiosk.co.nz**
HealthLink	Thomas Bowden	2013	In Market	Creating innovative new tools for healthcare providers to communicate patient information to any other.	Digital Health & Health IT	+64 (9) 354 7200	Level 3, 13-15 Teed Street, Newmarket, Auckland 1023	**www.nz.healthlink.net**
Healthpoint NZ	Kate Rhind	2004	In Market	Software solution platforms for emergency planning and communication with public health sector.	Digital Health & Health IT	+64 (9) 630 0828	Go3, Zone 23, Edwin Street, Mt Eden, Auckland 1024	**www.healthpointltd.co.nz**
HealthSoft/RxOne	Ross Peat	1999	In Market	Provider of pharmacy software.	Digital Health & Health IT	+64 (9) 300 7007	1/16 Heather St, Parnell, Auckland 1052	**www.rxone.co.nz**
Heartlab	William Hewitt	2018	Commercialisation	Uses biophysical modelling to offer personalised heart health care.	Digital Health & Health IT	+64 (22) 717 346	Level 6, 70 Symonds Street, Auckland Central, Auckland 1010	**www.heartlab.ai**
Hi-Aspect	George Slim	2015	Commercialisation	Biomaterial development company specialising in the delivery of protein based gels and devices for applications in skin and wound care.	Diagnostics & Therapeutics	+64 (27) 450 9871	Gracefield Innovation Precinct, 69 Gracefield Road , Gracefield, Wellington 5010	**www.hi-aspect.com**
HT Systems	Richard Shepherd	2017	In Market	Design and manufactures patient transfer equipments.	Devices		Level 6, Rehua Building, Level 6, Rehua Building, Christchurch	**www.htsystems.co.nz**
Hyvan	John Hyndman	2013	Commercialisation	Design and manufacturing of compact, portable anaesthetic machine.	Devices	+64 (27) 464 0107	411 Heywards Road, RD2, Kaiapoi 7692, Christchurch, New Zealand	**www.hyvan.co.nz**
i-con tech	Mana Huggan	2018	Development	Telehealth development company.	Digital Health & Health IT	+64 (22) 132 0578	99 Newell Road, Tamahere, Hamilton 3283	
IMeasureU	Nick Bolton	2013	Commercialisation	Wearable sports motion sensors for decision-support in sports.	Devices	+64 (9) 889 8158	5 Water Street, Grafton, Auckland 1023	**www.imeasureu.com**
ImpactWear	Natasha Williams	2004	In Market	Manufacturing of hip and limb protector for injury-prevention during falls.	Devices	0800 467 228	92 Tender Road, Dairy Flat, Road 4, Albany, Auckland 0794	**www.impactactive.com**
Incisive Medical System	Sinclair Hughes	1984	In Market	Software systems for private specialist practices, day surgery centres, and private surgical hospitals.	Digital Health & Health IT	0800 64 1234	127 Innes Road, Christchurch 8052	**www.incisive.co.nz**
Inclusys	Swati Gupta	2017	In Market	A resource for parents and educators to help children with autism learn social interaction skills.	Digital Health & Health IT	+64 (27) 807 9003	4 Lockhart Place, Mount Wellington, Auckland 1060	**www.talkwithmeapp.com**
InventoryTech	Peter Montgomery	2013	Commercialisation	CleverMedkit – Smart digital solution for first aid needs.	Digital Health & Health IT		27 Kaikanui St, Kaiapoi, Christchurch 7630	**www.clevermedkits.com**

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Izon Science	Hans van der Voorn	2005	In Market	Nanotechnology company that develops and sells nano-scale particle analysis and isolation tools.	Devices	+64 (3) 357 4270	Unit C - 8 Homersham Place, Burnside, Christchurch 8053	**www.izon.com**
JunoFem	Jennifer Kruger	2018	Commercialisation	Pelvic training device to help women manage their pelvic health.	Devices	+64 (9) 923 9968	70 Symonds Street, Auckland 1010	**www.junofem.com**
Jupl	Alan Brannigan	2012	Commercialisation	Personal medical care technology.	Devices	+64 (9) 972 9621	4 Williamson Ave, Grey Lynn, Auckland 1021	**www.jupl.com**
KAMlabs	Whitney King	2012	Development	Development of prescriptive foot orthoses for podiatrists.	Devices			
Kara Technologies	Arash Tayebi	2017	Commercialisation	Translates customer facing content to sign language using a hyper-realistic computer-generated avatar and an AI engine.	Digital Health & Health IT		3 Glenside Crescent, Eden Terrace, Auckland 1010	**www.kara.tech**
Kea Therapeutics	Duncan Mackintosh*	2017	Development	Biotech developing a non-opioid based anaesthetic	Devices		MinterEllisRddWatts, Level 20, Lumley Centre, 88 Shortland Street, Auckland 1010	
Keraplast Manufacturing	Bruce Foulds	1990	In Market	Patented keratin technology for haircare, skincare, and advanced wound care.	Diagnostics & Therapeutics	+64 (3) 325 9100		**www.keraplast.com**
Kiatronics	Dean Welton	2006	In Market	Manufacturer and reseller of electronic control products for fuel management, the aged care sector, and the elevator industry.	Devices	+64 (7) 578 7739	11 Cypress Street, Judea, Tauranga 0630	**www.kiatronics.co.nz**
KM Medical	Richard McCulloch	2008	Commercialisation	Neonatal resuscitators.	Devices	+64 (21) 929 577	993 Beach Road, Torbay, Auckland 0630	**www.kmmedical.co.nz**
Kode Biotech	Stephen Henry	1996	Commercialisation	Biological 'paints' that allow novel cellular interactions and therapeutic use.	Diagnostics & Therapeutics	+64 (9) 921 9708	19 Mount Street, Auckland 1010	**www.kodebiotech.com**
KYND Wellness	Tom Mulholland	2016	In Market	Tool to measure and manage employee health and wellbeing.	Digital Health & Health IT	+64 (27) 334 4567	Duncan Dovico New Zealand Limited, 20 Robe Street, New Plymouth	**www.kyndwellness.com**
Lifetime Health Diary	Hamish MacDonald	2013	In Market	Medical profile software.	Digital Health & Health IT			**www.thediary.com**
Ligar	Nigel Slaughter	2012	Development	Polymers making it possible to extract specific molecules from a wide range of liquids including oils, juices, alcohols, liquidised plants, and water.	Diagnostics & Therapeutics	+64 (21) 822 731	10 Bisley Road, Enderley, Hamilton 3214	**www.ligar.nz**
MARS Bioimaging	Phil Butler	2007	In Market	Delivering healthcare innovation through the development of CT imaging using colour x-ray.	Devices	+64 (22) 185 3075	29A Clyde Road, Ilam, Christchurch 8041	**www.marsbioimaging.com**
Medifab	Bruce Mascull	2013	In Market	Manufacturer of wheelchair seating, paediatric, and adult disability equipments.	Devices	+64 (3) 307 9790	32 Detroit Drive, Rolleston 7675	**www.medifab.co.nz**
MediMap	Greg Garratt	2012	In Market	Cloud-based medication management, operating in aged care, mental health, rehab, addiction services and community care.	Digital Health & Health IT	0800 298 363	Unit 8, 9 Sir Gil Simpson Drive, Burnside, Christchurch 3283	**www.medimap.co.nz**
Melon Health	Siobhan Bulfin	2012	In Market	Patient engagement and behavior change platform for the prevention and management of chronic disease.	Digital Health & Health IT	+64 (21) 510 669	Level 1, 8 Kent Terrace, Mt Victoria, Wellington	**www.melonhealth.com**
Melrose Wheelchair	Philip Melrose	1997	In Market	Custom-made lifestyle, specialist, and sports wheelchairs and accessories.	Devices	+64 (3) 354 5616	108 Sawyers Arms Road, Papanui, Christchurch 0602	**www.wheelchairs.co.nz**
Menixis	Dr Stephen Sowerby	2010	Development	Products for small particle microscopy.	Diagnostics & Therapeutics		18 Princes Street, Dunedin Central, Dunedin 9016	**www.menixis.com**
Migo	Maru Nihoniho	2017	Commercialisation	Mood-aware wearable app, to support people with their mental and emotional wellbeing.	Digital Health & Health IT			
Molteno Ophthalmic	Nina Molteno	1982	In Market	Designing and manufacturing ophthalmic implants.	Devices	+64 (3) 479 2744	152 Frederick Street, Dunedin 9016	**www.molteno.com**
Morfit	Martin Rooke	2013	In Market	Ergonomic car seat lumbar support devices.	Devices	+64 (4) 389 0707	67 Rintoul Street, Newton, Wellington 8041	**www.morfit.co.nz**
MTech Games	Brook Waters	2015	Commercialisation	VR-gamification for rehabilitation, training, and education.	Digital Health & Health IT	+64 (21) 329 012	4 Ash Street, Christchurch Central, Christchurch 8011	**www.mtechgames.com**
Multifit	Wayne Manson	2000	In Market	Design and manufactures equipments for seniors and disabled people to live with greater independence.	Devices	+64 (7) 308 0045	8 Merritt Street, Whakatane 3330	**www.multifit.co.nz**
My Practice	Ashwin Patel	2004	In Market	Practice management system for GPs and other health providers.	Digital Health & Health IT	0800 69 77 22	52 Gladstone Road, Parnell, Auckland 1023	**www.mypractice.co.nz**
Mycare Ltd	Shaun Smith	2013	In Market	Platform to connect with local helpers and care workers.	Digital Health & Health IT	0800 677 700	Level 3, Building 2, 61 Constellation Drive, Rosedale, Auckland 0632	**www.mycare.co.nz**
Myovolt	Steve Leftly	2015	Commercialisation	Develops a wearable vibration massage products to relieve muscular pain and facilitate injury recovery.	Devices	+64 (27) 511 1266	3/254 St Asaph Street, City, Christchurch 8011	**www.myovolt.com**
Netsoft Health Solutions	David Porter	1999	In Market	Developer of healthcare software solutions.	Digital Health & Health IT	+64 (9) 213 9963	68/1 Paul Matthews Road, Albany, Auckland 0632	**www.netsoft.net.nz**
Neuren Pharmaceuticals	Larry Glass	2001	In Market	Biopharmaceutical company.	Diagnostics & Therapeutics	+64 (9) 370 0200	Level 2, 57 Wellington Street, Freemans Bay, Auckland 1011	**www.neurenpharma.com**
Noted Ltd	Scott Pearson	2015	Development	Client management system for health and social care providers.	Digital Health & Health IT	+64 (21) 634 567	93 Cuba Street, Te Aro, Wellington 6011	**www.noted.com**
Nuverve Health	Colin Fallon	2018	In Market	Personalised wellbeing solutions for customer health. Recommendation engine recommends diet plan based on customer's goals and lifestyle.	Digital Health & Health IT		9 Infantry Lane, Papakura, Auckland 2110	**www.nuverve.co.nz**
NZeno	Paul Tan	2016	Development	Safe pig kidneys for human transplantation.	Diagnostics & Therapeutics		24 Balfour Road, Parnell, Auckland 1052	**www.nzeno.nz**
Objective Acuity	Adam Podmore	2016	Development	Portable objective vision screening test for young children.	Digital Health & Health IT	+64 (21) 382 326	Level 10, 2 Kitchener Street, Auckland 1010	**www.objectiveacuity.com**
oDocs Eye Care	Sheng Chiong Hong	2014	In Market	Portable eye examination device which attaches to an iPhone turning it into an anterior segment and retinal camera.	Devices	+ 64 (27) 897 6543	36 Murano Street, Waverley, Dunedin 9013	**www.odocs-tech.com**

* Executive Chairman

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Optical Engineering Solution (OES)	Ryan Mahmoud	2010	Development	Developing innovative diagnostic optometric products.	Devices			
Opum Technologies	Andrew McDaid	2016	Development	Developing a robotic rehabilitation platform for improving the way physical and occupational therapy is delivered.	Devices	+64 (9) 923 1898	44 Arawa Street, New Lynn, Auckland 3171	**www.opumtechnologies.com**
OssAbility	Seamus Tredinnick	2013	Commercialisation	Designers and manufacturers of orthopaedic implants and instruments.	Devices	+64 (21) 273 2687	6 Hazeldean Road, Addington, Christchurch 8024	**www.OssAbility.com**
Ossis	Paul Morrison	1998	In Market	Designs and manufactures implants and instruments used in revision Orthopaedic surgeries along with implants used in spinal and maxillo-facial surgeries. Also can manufacture biomodels from CT data.	Devices	+64 (3) 365 7369	150 Heaton Street, Strowan, Christchurch 8052	**www.ossis.co.nz**
Otakaro Pathways	John Aitken	2011	In Market	Development of diagnostics for autoimmune disease in humans and diseases in the agricultural sector.	Diagnostics & Therapeutics	+64 (3) 341 2195	185 Kirk Road, Innovation Park, Templeton, Christchurch 1010	**www.otakaropathways.co.nz**
Patney Limited	Frances Anderson	2014	In Market	Non-invasive sleep positioner to control snoring.	Devices	+64 (7) 838 0844	563 Pencarrow Road, Hamilton 3283	**www.patney.com**
Performance Lab Technologies	Waynne Dartnal	2003	In Market	ARDA software licenced to manufacturers of health and fitness hardware and software products.	Digital Health & Health IT	+64 (9) 480 1422	19 Byron Avenue, Takapuna, Auckland 740	**www.performancelab.co.nz**
Pictor	Dr. Anand Kumble	2006	In Market	Immunodiagnostic solution for simple and cost-effective diagnostic tests.	Diagnostics & Therapeutics	+64 (9) 309 0950	24 Balfour Road Parnell, Auckland 1052	**www.pictordx.com**
Plantae	Carol Priest	2011	Development	Originates, formulates, designs, and markets certified organic skincare products using pure plant processes.	Diagnostics & Therapeutics	+64 (3) 970 2227	Founders Park, 87 Atawhai Drive, Nelson 7010	**www.plantae.co.nz**
Polybatics	Tracy Thompson	2009	Commercialisation	Bio-bead technology as a delivery mechanism for vaccines, enzymes, and monoclonal antibodies.	Diagnostics & Therapeutics			
Precept Health	Tony Blomfield	2006	In Market	Health software.	Digital Health & Health IT	+64 (9) 950 3486	8 Hillary Square Orewa, Auckland 0632	**www.preceptheath.com**
Primal Movement	Thomas Miller	2017	Development	Developing a technology to predict and prevent injuries.	Devices			
PullThru	Rod Galanti	1989	In Market	Endoscope channel cleaning products.	Devices	+64 (9) 818 9558	11 Bancroft Crescent, Glendene, Auckland 0602	**www.pullthru.net.nz**
Quantec	Dr. Rod Claycomb	2008	In Market	Bioactives for proprietary ingredient formulations.	Diagnostics & Therapeutics	+64 (7) 857 0501	Ground Floor, Gallagher Core Facilities Building, 9 Melody Lane, Hamilton East, Hamilton	**www.quantec.co.nz**
Quoralis	Sheldon Nunes	2017	Commercialisation	'Fallcast' wearable solution to keep elderly on their feet.	Devices			**www.quoralis.com**
Qvisual	John Williams	2003	In Market	Elderly care assistive technology.	Digital Health & Health IT	+64 (21) 491 661	HLB Level 8, Christchurch 1010	**www.mimo-care.com**
Revolution Fibres	Iain Hosie	2009	In Market	Developer of nanofibre products for medical use.	Diagnostics & Therapeutics	+64 9 835 4805	9A Corban Ave, Henderson, Auckland, New Zealand, 0612	**www.revolutionfibres.com**
Rex Bionics	Charles Carignan	2007	Commercialisation	Hands-free robotic device for rehabilitation.	Devices	+64 (9) 440 9741	46 Hillside Rd, Wairau Valley, Auckland 0627	**www.rexbionics.com**
Rhondium	James Graham	2010	In Market	High-tech manufacturing of an innovative dental crown.	Devices	0800 746 634	4 Sheffield Street, Katikati 3129	**www.rhondium.com**
Safersleep	Paul Campbell	1997	In Market	Hospital anaesthetic software and administration systems.	Digital Health & Health IT	+64 (9) 476 1507	5 Orbit Drive, Mairangi Bay, Auckland 0630	**www.safersleep.com**
Securely	Neil Simmonds	2005	In Market	Provides technology to manage your home, property, or business.	Digital Health & Health IT	0800 904 904	Corner Exeter St & Bristol St, Levin 5510	**www.securely.nz**
Senscio	Bryn Sparks	2000	In Market	Developed a home sleep study analysis and reporting service for family doctors and non-sleep specialists.	Devices	+64 (3) 341 8900	Unit 6/10, Archeron Drive, Christchurch 8041	**www.senscio.co.nz**
Sense Medical	Alistair Rumball-Smith	2009	In Market	Mobile clinical coordination, documentation, and task management platform for hospitals.	Digital Health & Health IT	+64 (275) 481 882	Rosewarne House, 303 Selwyn Street, Spreydon, Christchurch 8024	**www.sensemedical.co.nz**
SensorFlo	Grant Hemmings	2015	Development	Real time non invasive blood glucose measurement.	Devices	+64 (21) 389 098	Level 1, Innovation Park, 113 Ruakura Road, Hamilton East, Hamilton 3216	
SHI Global	Allan Binks	2011	In Market	Provides Go Well Health; builds, measures and delivers personalised care plans.	Digital Health & Health IT	+64 (21) 412 233	Oldershaw & Co Ltd, 106 A Kennedy Road, Marewa, Napier 4110	**www.shiglobal.com**
Shore Orthotics	Gary Seaman	2009	In Market	Design and manufacturing of custom and ready-made orthotic devices.	Devices	+64 (9) 479 3874	6 College Road, Meadowbank, Auckland 1072	**www.shoreorthotics.co.nz**
Shower Buddy	Barry Redican	2004	In Market	Design and manufacturing shower chairs and bathroom transfer systems for mobility-impaired individuals.	Devices	+64 (21) 449 806	37 Whanui Street, Vogeltown, Wellington 6021	**www.showerbuddy.co.nz**
SiliconCoach	James Nation	1997	In Market	Video analysis tool to assist in improving and assessing physical performance, rehabilitation, professional development, and learning.	Digital Health & Health IT	+64 (3) 479 2577	Level 2, 205 Princes Street, Dunedin Central, Dunedin 9016	**www.siliconcoach.com**
Silventum	Gavin Clark	2017	Development	Superior filling materials to resist bacterial infection.	Devices	+64 (22) 563 5950	C/O Otago Innovation Ltd, 87 St David Street, North Dunedin, Dunedin 9016	**www.silventum.com**
SimTutor	Dave Murdoch	2014	In Market	Cloud based software platform that delivers a fully interactive learning experience so your people can practice without risk, pressure, or negative consequences.	Digital Health & Health IT		103 Carbine Road, Mt Wellington, Auckland 1060	**www.simtutor.com**
Solutions Plus Ltd	Carol Briggs	1996	In Market	Maternity and gynaecology software.	Digital Health & Health IT	+64 (9) 486 6262	Unit 8c, 331 Rosedale Road, Albany, Auckland 0632	**www.solutionsplus.co.nz**
Spinal Traction Limited	Raj Singhal	2013	Commercialisation	Cervical spine traction device that has been specifically developed for the treatment of cervical spine dislocations.	Devices	+64 (272) 136 224	41 Bimingham Drive, Middleton, Christchurch 8041	**www.spinaltraction.co.nz**
Spritely	Christopher Dawson	2016	Commercialisation	Aged care technology.	Digital Health & Health IT			**www.spritely.co.nz**

Early Stage HealthTech Companies
Directory

COMPANY NAME	CEO FULL NAME	FORMATION	LIFE STAGE	DESCRIPTION	PRIMARY SECTOR	PHONE	ADDRESS TO USE	WEBSITE
Surgionix	Pranesh Kumar	2010	In Market	Drill bits that provide operating surgeons with accurate measurement readings.	Devices	+64 (9) 414 5214	13e Paul Matthews Road, Rosedale, Auckland 0632	**www.surgionix.com**
Sweetlevels	Peter Rock	2010	Development	Device to assist in the daily administering of diabetes medication.	Devices	+64 (21) 637 440		**www.peterock.co.nz**
Swibo	Ben Dunn	2014	In Market	Fun and engaging games from traditional balance board exercises using your smartphone and computer.	Digital Health & Health IT	+64 (22) 306 5605	11 Pa Road, Pukerua Bay, Wellington 5026	**www.swibo.co.nz**
Taska Prosthetics	Jamie Cairns	2010	Development	Myoelectric prosthetic hand to help amputees perform delicate day-to-day activities with relative ease.	Devices	+64 (508) 482 752	10 Nelson Street, Riccarton, Christchurch 8011	**www.taskaprosthetics.com**
Techion Group	Greg Mirams	2010	In Market	Particle analysis for animal and human parasite diagnosis.	Diagnostics & Therapeutics	+64 (3) 477 7555	176 Puddle Alley, Mosgiel, Dunedin 9092	**www.techiongroup.co.nz**
The Clinician Holdings Ltd	Ron Tenenbaum	2015	In Market	Value based healthcare platform for outcome and cost measurements.	Digital Health & Health IT	0800 102 647	22 Pollen Street, Grey Lynn, Auckland 1021	**www.theclinician.com**
The Healthy Thinking Institute	Tom Mulholland	2006	Commercialisation	Digital learning solution to teach individuals how to gain control over their attitudes, emotions, and manage stress.	Digital Health & Health IT		77 Titiraupenga Street, Taupo, Taupo 3330	**www.healthythinking.biz**
The Insides Company	Garth Sutherland	2017	Commercialisation	Therapeutic chyme reinfusion solution for the recovery of gut diseases.	Devices	+64 9 887 9309	The Icehouse, 125 St George's Bay Rd, Parnell, Auckland 1052	**www.insidescompany.com**
Theranostics Lab	Patrick Gladding	2008	In Market	Bringing evidence based molecular diagnostics into the clinical workplace for disease risk prediction, diagnosis, and personalised medicine.	Diagnostics & Therapeutics		2 Crummer Road, Grey Lynn, Auckland 1021	**www.theranostics.co.nz**
Thought-Wired	Dmitry Selitskiy	2012	Commercialisation	Device to help people interact with the world by translating brain and body signals into actions.	Digital Health & Health IT	+64 (21) 059 8329	70 Hobsonville Point Road, Hobsonville, Auckland 0616	**www.thought-wired.com**
Ticklish	Clint Sullivan	2013	Commercialisation	Motion sensitive and reading tooth-brush to help children develop good brushing habits.	Devices			**www.ticklishparenting.com**
Tiro Medical	Marcus Haggers	2014	Commercialisation	Tools for the Digital Medicine sector.	Digital Health & Health IT	+64 (36) 590 390	6 Hazeldean Road, Christchurch 8024	**www.tiromedical.com**
Toku Eyes	Ehsan Vaghefi	2018	Development	Developing novel ophthalmic imaging devices for delivering faster, more affordable and individualized eye-care.	Devices	+64 (21) 102 7705	School of Optometry, Grafton Campus, 85 Park Road, Auckland 1023	**www.tokueyes.com**
Toniq Ltd	Geoffrey Sayer	1997	In Market	Retail point of sale and pharmacy dispensing software provider.	Digital Health & Health IT	+64 (3) 341 0195	67 Riccarton Road, Riccarton, Christchurch 8011	**www.toniq.co.nz**
Tranzsoft Group Ltd	Rod Hall	1999	In Market	Developer of software technology designed to improve business.	Digital Health & Health IT	+64 (9) 448 2075	Level One, Building 6, 331 Rosedale Road, Albany, Auckland 0632	**www.tranzsoft.com**
Ubiquitome	Paul Pickering	2014	In Market	Providing access to genomic information through ubiquitous cloud connected, genetic analysis through handheld, quantitative PCR-enabled devices.	Devices		147 Quay Street, Auckland 1010	**www.ubiquitomebio.com**
Unifoot	David Dell	2000	In Market	Patented accessory attached to crutches and walking sticks to provide increased stability and reduced impact.	Devices	+64 (27) 272 0455	10 O'Connor Drive, Pukekohe, Auckland 2120	**www.unifoot.co.nz**
Upstream Medical Technologies	Kieran Jina	2015	Development	Biomarker-based testing for diagnoses of heart disease and associated diseases.	Diagnostics & Therapeutics	+64 (21) 029 06742	Centre for Innovation, 87 St David Street, Dunedin 9016	**www.upstreamdx.com**
Uri-Go Limited	Mike Brown	2018	Development	Wearable device that gives users the certainty of knowing when to urinate.	Devices	+64 (27) 919 1822	173c Waltham Road, Christchurch 8023	**www.urigo.nz**
vCare	Chris Graham	2010	In Market	Design, construction, and implementation of a variety of software systems involving community health management.	Digital Health & Health IT	+64 (3) 903 1253	Unit 7/35 Sir William Pickering Drive, Burnside, Christchurch	**www.vcaresoftware.com**
Vensa Health	Ahmad Jubbawey	2007	In Market	Mobile health solutions provider.	Digital Health & Health IT	+64 (9) 522 9522	Vensa House, 459 Great South Road, Penrose, Auckland	**www.vensahealth.com**
Veriphi	Greg Shanahan	2002	Commercialisation	Developing laser verification technology to prevent intravenous (IV) medication error.	Devices	+64 (9) 445 0362	Loft 1, North Tower, Devonport Wharf, 1 Marine Square, Auckland 0624	**www.veriphi.co.nz**
Veritide	Craig Tuffnell	2006	In Market	Develops biological identification and detection technology.	Diagnostics & Therapeutics	+64 (3) 372 3506	17b Marylands Place, Middleton, Christchurch 8024	**www.veritide.com**
Viewpoint Medical	Benjamin Mullins	2019	In Market	Vein imaging device compatible with smartphones, using dual imagery by illuminating and projecting the patient's vasculature (veins) onto the skins surface, whilst simultaneously appearing on the smartphone screen.	Devices			**www.viewpointmed.com**
Virtual Medical Coaching	James Hayes	2015	In Market	Virtual reality education platform with adaptive learning and metric feedback for the medical profession.	Digital Health & Health IT	+64 (3) 331 6660	EPIC, 100 Manchester Street, City, Christchurch 8001	**www.virtualmedicalcoaching.com**
Vital Food Processors	Justus Homburg	1991	In Market	Manufacturer of natural digestive aids.	Diagnostics & Therapeutics	0800 848 253	78 Ascot Rd, Airport Oaks, Auckland	**www.vitalfoods.co.nz**
Webtools Health	Harry Hawke	2018	In Market	Providing software solutions, app development, and consulting services.	Digital Health & Health IT	+64 (3) 371 9454	146A Lichfield Street, Christchurch 8011	**www.webtools.nz**
Wellington Zhaotai Therapies	Mike Zablocki	2017	Development	Providing clinical access to CAR-T cell technologies.	Diagnostics & Therapeutics	+64 (4) 499 6914	CSB, Victoria University of Wellington, Gate 7 Kelburn Parade, Kelburn, Wellington 6012	**www.malaghan.org.nz**
Zenith Technica	Matthew Wielenga*	2014	In Market	3D printing of custom implants and surgical instruments for small to large devices	Diagnostics & Therapeutics	+64 9 213 3784	Unit 4, 25 Airborne Rd, Rosedale, Auckland 0632, New Zealand	**www.zenithtecnica.com**
Zero-Cast Ltd	Steve Hamilton	2012	Development	Fracture stabilization system.	Devices	+64 (9) 414 5214	13E Paul Matthews Road, Rosedale, Auckland 0632	**www.zero-cast.com**
ZyGEM NZ	Paul Kinnon	1999	Development	DNA extraction kits.	Diagnostics & Therapeutics	+64 (7) 857 0870	Waikato Innovation Park, Ruakura Road, Hamilton East, Hamilton 3216	**www.zygem.com**

*Managing Director

About Us

TIN, CMDT & the HealthTech Report Insights Team

TIN

Technology Investment Network (TIN) is the leading independent source of information on New Zealand's technology sector, and has been collecting and analysing data on New Zealand technology exporting companies for over 15 years.

The annual TIN Report – our flagship report – includes detailed analysis of sector performance for the year, ranking the top 200 technology companies by revenue and publicly recognising high growth achievers with a series of annual awards. Since 2016 the TIN Report has also included an annual listing of 100 promising Early Stage Companies.

In addition, TIN undertakes research and analysis, on request, for industry participants, professional services firms, investors, and Government clients.

The NZ HealthTech Insights Report is the first in a planned series of New Zealand sector-specific reports providing insights into the growing technology ecosystem and the investment opportunities that exist in the NZ tech sector.

For more information, visit: **tin100.com**.

CMDT

The Consortium for Medical Device Technologies was co-founded in 2012 to help grow the medical device industry in New Zealand. Together with its research translational partner, the MedTech Centre of Research Excellence (MedTech CoRE), are today a national resource linking research activities at NZ universities and Crown Research Institutes with industry, clinicians, investors and government.

The CMDT gives easy access to NZ's medtech network as a one-stop portal and facilitates collaborations in the sector. It provides leadership around new initiatives to strengthen and connect the MedTech Innovation ecosystem particularly to help support NZ's medtech startups. Over the years, the CMDT's has successfully helped establish the NZ Healthtech Week, the MedTech CoRE, the Healhtech Activator and Women in HealthTech with various sector partners.

The CMDT is led by the partnership of Auckland University of Technology, Callaghan Innovation, University of Auckland, University of Canterbury, University of Otago and Victoria University of Wellington.

For more information, visit:
www.cmdt.org.nz

HealthTech Insights Project Team

GREG SHANAHAN – Managing Director, TIN

Greg established the Technology Investment Network in 1999. Under his direction, the TIN Report has enjoyed growing recognition and influence since its inception in 2005. A well-known figure in the New Zealand high-tech sector, Greg's in-depth industry knowledge is underpinned by his role as co-founder and MD of medical device company Veriphi.

DIANA SIEW
– Co-Founder CMDT

Diana is a connector in the NZ medtech innovation environment, co-founding the CMDT in 2012 to create opportunities for the sector through partnerships between academia, industry, clinicians and government. Her insight into "NZ MedTech" stems from co-leading the CMDT, and her roles with MedTech CoRE and the Auckland Bioengineering Institute. Diana is a Director of Toku Eyes and advisor to start-ups.

WILLIAM LIN – CMDT / MedTech CoRE

William interned with Uniservices, CMDT and MedTech CoRE. During this time, he gained valuable insight into the medtech sector from start-ups, established medtech companies and researchers. This knowledge has supported his role as lead analyst and writer for several chapters in this report. William is now an analyst at The Insides Company.

MARINKA TEAGUE
– Senior Research Analyst, TIN

Marinka has worked on the organisation and analysis of TIN's annual TIN200 survey data for several years, helping shape both the quantitative and qualitative research outputs for this and other key TIN reports.

BRENDAN BOUGHEN
– Operations Manager, TIN

Brendan is responsible for the overall content development and delivery of all TIN research publications from concept to launch, including writing, editing, and wrangling the TIN research team.

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MOSHA

Kylie Ormsby and Steven McCleery from Mosha have expertly managed the entire design process for TIN publications since 2007, directing the creative style, design layout, and production scheduling.

"IN THE LAST DECADE OF INVESTING IN EMERGING HEALTHTECH COMPANIES AS NEW ZEALAND'S PREDOMINANT SEED AND EARLY STAGE INVESTMENT FUND, WE HAVE BEEN IMPRESSED BY THE QUALITY AND QUANTITY OF WORLD CLASS SCIENTIFIC RESEARCH AND INNOVATION. NEW ZEALAND IS WELL PLACED TO BECOME AN IMPORTANT PART OF THE GLOBAL HEALTHCARE SECTOR WITH ITS SCIENTIFIC EXCELLENCE AND EASE OF DOING BUSINESS.

We believe that an increasing level of capital investment, sector specific commercialisation expertise and focus on global markets, will greatly accelerate the progress of New Zealand's emerging healthtech companies.

CAROLINE QUAY,
Chief Investment Officer, Cure Kids Ventures

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