

# Startup Investment

| NOVEMBER | 2020



DIVING INTO  
DEEP TECH



CALLING ALL STARTUP AND  
EARLY STAGE INVESTORS



DEEP TECH INVESTMENT'S  
BIG REWARDS



PATIENCE PAYS OFF FOR  
DEEP TECH INVESTORS



# Diving into deep tech ↓



Welcome to the November 2020 edition of Startup Investment Magazine.

The global pandemic is continuing to have a profound impact on businesses by driving the need to embrace technology, innovate and do things differently. While we've seen this be a real challenge for some industries, it has highlighted the resilience of the New Zealand startup community and its investors – particularly those operating in deep tech and Software as a Service ('SaaS').

Young Company Finance deal data, supplied by NZ Growth Capital Partners (NZGCP), for the first half of 2020 indicates that total investment in deep tech and SaaS has remained relatively stable, with \$33.6m invested through to 30 June 2020. This is only a c.5% reduction compared to the same period in 2019. And, deep tech received c.25% of total startup investment during the first half of this year.

In this edition of Startup Investment Magazine, we take a closer look at deep tech. It's a game changing sector that is solving some of our most important problems. We outline some emerging global trends, and discuss what makes our approach in New Zealand unique. We also speak to early stage investors of Aroa Biosurgery, along with the company's founder and CEO Brian Ward, to find out more about the company's journey to reaching its AUD\$45m listing on the ASX in June 2020.

Our experience of the global financial crisis earlier in the century shows us that brave, innovative startups are often born out of economic uncertainty. The financial fallout from the global pandemic, along with the brain gain from returning Kiwis, provides a similar opportunity for New Zealand startups, especially those solving global issues.

We are seeing support for these opportunities play out in both the public and private sectors. In the lead

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up to the 2020 general election, the tech sector was identified as a key driver of our country's future economic growth by several political parties. At the same time, Icehouse Ventures and LevelTwo have announced they will be joining forces to cultivate and invest in Kiwi deep tech startups over the next three years.

We hope you enjoy this edition of Startup Investment.

ANAND REDDY  
PARTNER, PWC

## About Startup Investment magazine

This biannual publication is put together by PwC New Zealand and the Angel Association of New Zealand, using data supplied by NZGCP. The purpose of this magazine is to provide insight and commentary on the startup sector in New Zealand. We welcome your feedback on our content and suggestions for future editions.



# Calling all startup and early stage investors ↓

My passionate call to startup and early stage investors – both budding and existing – is that we maintain the momentum of recent years despite the challenges and uncertainty the COVID-19-induced recession is generating.

I make this call because, not only do recessions deliver some of the best returns from startup investment, but equally importantly, the high growth tech companies we are supporting will play a vital role in New Zealand's economic revival.

New Zealand's venture investors have had a great deal of success with SaaS (software as a service) but in this edition we focus on the huge rewards of deep tech investment. Deep tech founders are solving the acutely gritty problems the world faces such as those in healthcare, climate change and pollution amelioration.

It's terrific to be able to share that activity levels of startup investment for the first half of this year were only 5% down on previous years. That is almost margin of error territory. Great stuff!

It's worth noting too that in New Zealand upwards of two thirds of venture investment is done in the second half of the year. I'm confident 2020 will be our fourth

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year of well north of \$100m of investment into start-ups. Total investment in startups is \$33.5m from January to June 2020. This is 5% and 6% down compared to the same periods in 2019 and 2018, and, the number of deals done is 41 compared to 43 in the first half of 2019. It is interesting to see the use of convertible notes has doubled which is likely to reflect the need to amp up capital runways as simply and quickly as possible.

There is one statistic that's particularly inspiring. Our syndication levels are at their highest for a number of years at 85%. This means more than four out of every five deals are receiving money from other entities. Capital of course is great, but start-ups, their founders and teams, need the connections and capability that higher levels of syndication bring.

The virus and challenges the consequent recession has delivered are far from over. There still may be tougher times to come and startups will need investment more than ever. Keep the faith!



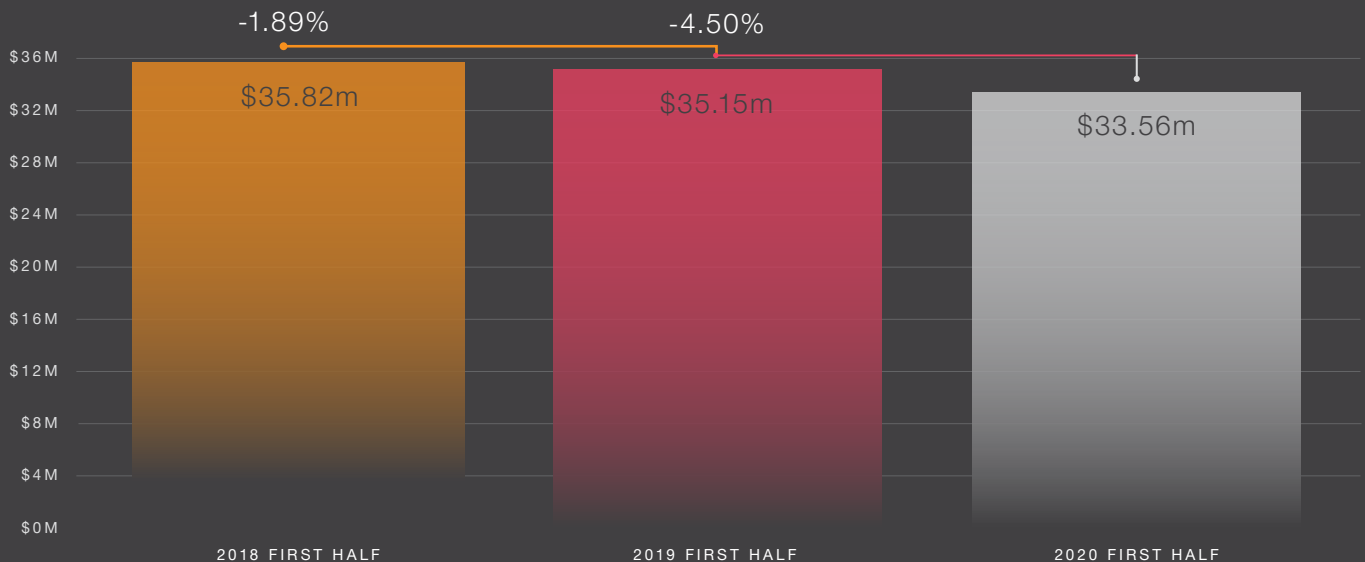
**SUSE REYNOLDS**  
CHAIR,  
ANGEL ASSOCIATION

# Startup investment trends ↑

The latest Young Company Finance deal data indicates that investment in New Zealand startups during the first half of 2020 remained resilient despite the impact of the global pandemic. Investors continued to invest primarily in Software & Services and Deep Tech\*, while also using syndication to achieve greater diversification. Investors and startups chose to move away from ordinary share deals, focusing instead on convertible instruments to raise capital.

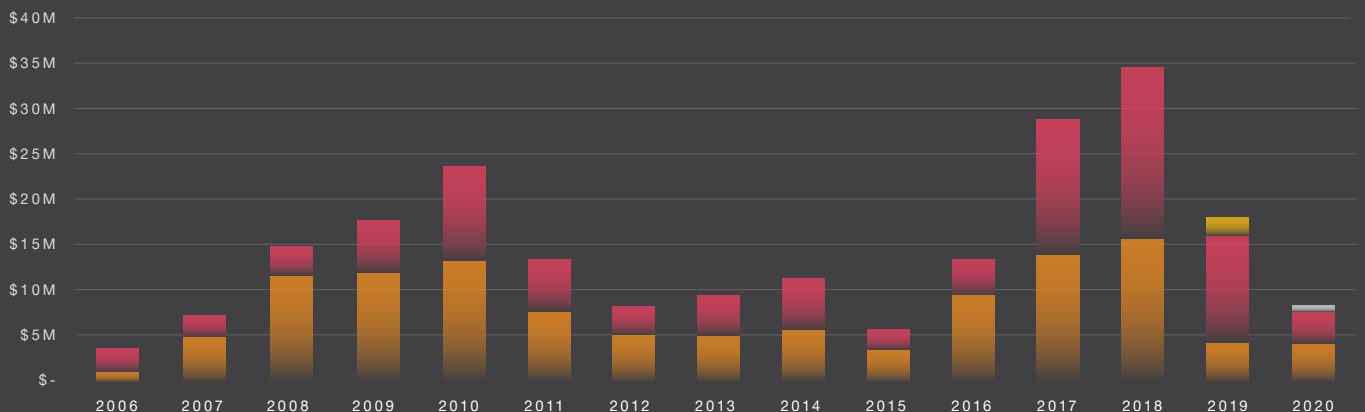
\* For the purposes of our analysis, we have classified New Zealand Deep Tech startups as including: pharmaceuticals, biotechnology & life sciences, technology hardware & equipment, aerospace & defense, industrials.

## FUNDING RECEIVED BY NEW ZEALAND STARTUPS DURING THE FIRST HALF OF THE YEAR FOR 2018 – 2020



## INVESTMENT IN NEW ZEALAND DEEP TECH STARTUPS FROM 2006 – JUNE 2020

- PHARMACEUTICALS, BIOTECHNOLOGY & LIFE SCIENCES
- TECHNOLOGY HARDWARE & EQUIPMENT
- AEROSPACE & DEFENSE ● INDUSTRIALS



During the first half of

# 2020

investors provided **\$33.56m** of funding for New Zealand startups.

Investors chose to move away from deals involving the issue of ordinary shares, towards convertible instruments. The split of deal types for the first half of 2020 were as follows:



45%

**CONVERTIBLE  
LOANS**

(FY19 21.49%)



32.5%

**CONVERTIBLE  
PREFERENCE  
SHARES**

(FY19 27.27%)

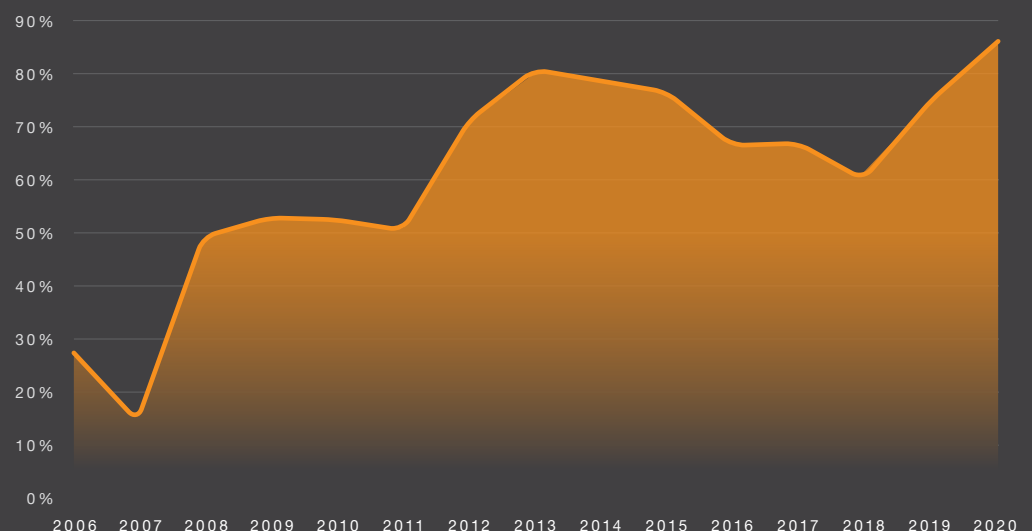


22.5%

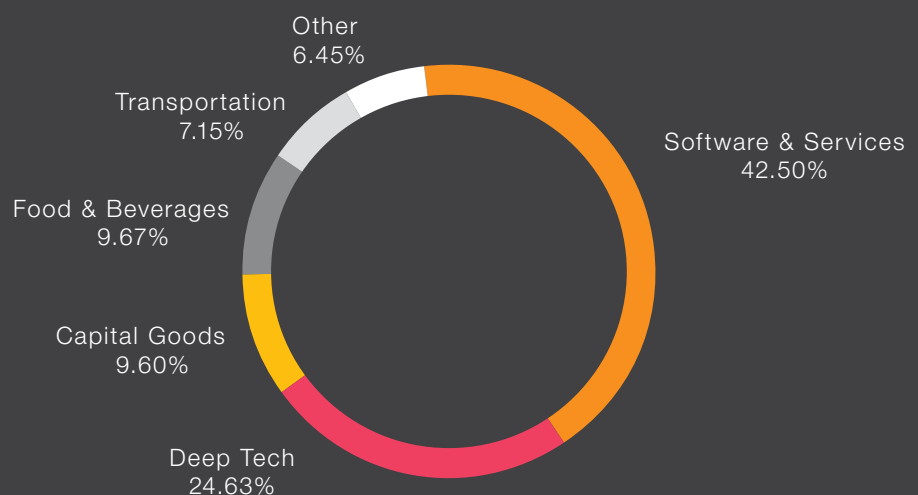
**ORDINARY  
SHARES**

(FY19 47.93%)

## TREND IN INVESTMENT SYNDICATION FROM 2006 – JUNE 2020



## INVESTMENT BY SECTOR DURING THE FIRST HALF OF 2020

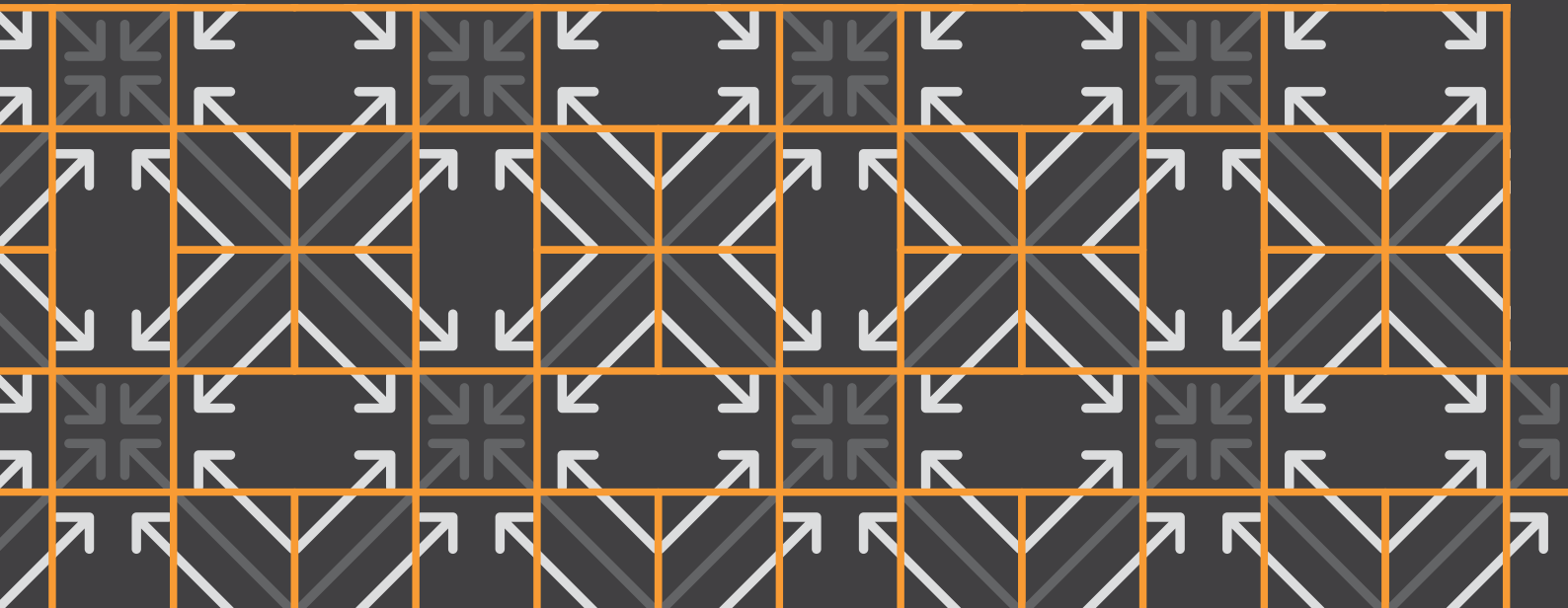


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Technology is New Zealand's fastest-growing export and one of the key areas is deep tech. Think Rocket Lab, Mint Innovation, Revolutionary Fibres and Rakon. Whilst these are familiar to Kiwis, most of our deep-tech companies are relatively unknown, even though they are one of our biggest assets in lifting productivity. Deep tech is a key lever for long-term, sustainable growth and it is starting to get some well-deserved attention, from Deep Tech Incubators to a \$10m support fund. It will also play a major role in the new Agritech Industry Transformation Plan. Global investors and multinationals around the world are increasing their investment in deep-tech companies, to solve global problems in healthcare, sustainability and life sciences, to name just a few. There has never been a better time to showcase our deep-tech companies.



HAYLEY HORAN  
TECH SECTOR LEAD  
NZTE



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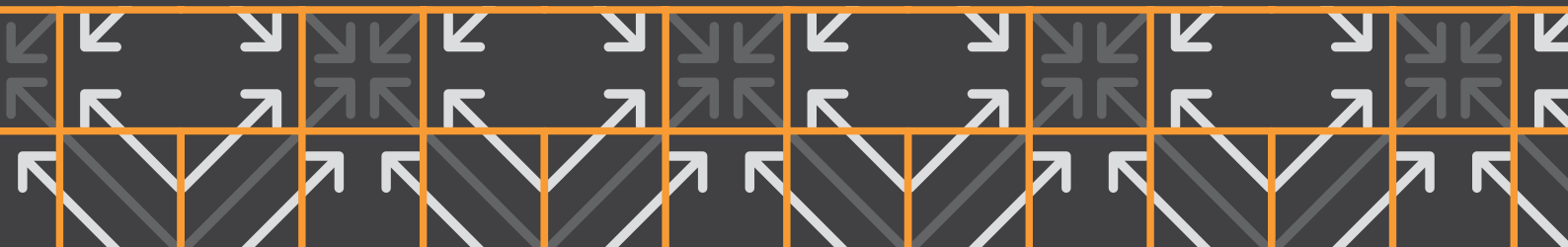
NZGCP is uniquely placed to see the trends in the start-up space, interacting with a significant portion of the early stage market. The reported 5% drop in investment levels in the first half of 2020 appears positive considering the wider impact and uncertainty in the period caused by COVID-19.

Despite the 5% drop, deal flow remains strong and we continue to see ongoing support for both follow-on and new fundraises. This continued investment shows confidence in these companies and the longer term prospects of the market. This ongoing support is playing an important role in pushing forward Kiwi innovation, and both job protection and job creation.

With a temporary increase to our Aspire NZ Seed Fund investment mandate, we are making a number of new investments as well as continuing to support the growth of many of our existing portfolio companies. We aim to carry this momentum through the next 12 months to support the market together with our partners and co-investors.



MARCUS HENDERSON  
INVESTMENT DIRECTOR  
NZ GROWTH CAPITAL PARTNERS





# Deep tech investment's big rewards ↓

New Zealanders are turning out world-beating, science-based solutions to help address climate change, pollution, health care, sustainable food production, and a raft of other acute global needs. Deep tech investors are getting behind solutions for these big problems, but we need others to come forward - now more than ever.

## What do deep tech investors look for?

Deep tech investors typically back companies powered by science. These ventures are defined by their complexity, both in terms of the science that underpins them and the IP they generate. Often, they have long development lead times before the product is 'in market' and may have significant capital requirements and challenging regulatory barriers to overcome.

These characteristics can be part of their appeal as investment opportunities. They have a highly defensible competitive edge and are going after high-value markets. This means the returns from a financial and socio-economic perspective are meaningful.

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## What are the deep tech trends?

Angel Association New Zealand recently hosted an online event to raise the profile of deep tech investment in this country. The presenters included Caroline Quay from CureKids Ventures, Carl Jones from WNT Ventures, Gabrielle Munzer from Australia's Main Sequence Ventures, and Mark Rocket, the CEO of KEA Aerospace.

We asked the panellists to talk about global trends and the impact of the pandemic. This is what we learnt:

- CureKids Ventures' Caroline Quay commented on recent growing interest in biotech and healthcare. She observed that while the healthcare industry has traditionally been slow to adopt technology and quite protective, that has all changed. Partnerships are being formed with highly elevated levels of collaboration and new technology is being deployed in months, not years.
- Gabrielle Munzer from Main Sequence noted the dramatic impact COVID-19 has had on food and agriculture deep tech investment. Empty supermarket shelves threw the need for investment in food security into stark relief. She pointed out that deep tech hardware founders have had to shift to onboarding customers without the ability to engage face-to-face. While this has been an adjustment, in many cases it's been a positive because it has brought forward future plans for remote onboarding.
- Carl Jones from WNT Ventures pointed out that the depth of economic uncertainty has highlighted the advantage that deep tech investment has over digital and SaaS investment. Most deep tech companies are solving "must have" issues rather than "nice to have". While COVID-19 is dominating the headlines, other global challenges have not disappeared. The need for ventures like Mint Innovation's extracting gold from waste, and Avertana's refining waste slag from the steel industry, is only going to increase. In addition, the characteristics of deep tech are in line with impact investing - another global investment trend worldwide - and a significant reason to support this growing and world-enhancing sector.



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#### What makes New Zealand deep tech special?

- KEA Aerospace's Mark Rocket paid tribute to the path that Rocket Lab has forged, noting that nothing says "deep tech" like space. New Zealand has a unique opportunity; with our clear skies, regulatory environment, and the increasing development of interesting technologies. Other ventures help support the industry such as Argo Navis, developing innovative chemical propulsion systems and Dawn Aerospace, developing sustainable space transportation systems. Plus, Aerospace Christchurch is creating a vibrant aerospace community that's connecting entrepreneurs, academics, government, and investors.
- WNT's Carl Jones referenced the development of areas of excellence we might not have anticipated 20 years ago, like industrial waste amelioration and spacetechnology. More recently, we've seen Foundry Lab pioneering the global metal casting industry.
- Caroline Quay from CureKids Ventures said she knew early on that deep tech was a long game whose future players would need a vibrant, supportive ecosystem. No one scales companies alone, especially in deep tech. She has been delighted to see the increasingly high levels of engagement on the part of investors, government, universities, and research institutes.

#### What's needed to increase deep tech investment?

When we asked the panellists about their top priorities, there was a cry for more investment with a plea for more institutional capital from the likes of Kiwisaver providers. All the panellists acknowledged the need for New Zealand to keep building and attracting expertise and experience, in order to become a global role model for creating a sustainable economy that generates exponential value and impact.

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Most deep tech companies are solving “must have” issues rather than “nice to have”



CAROLINE QUAY  
CUREKIDS VENTURES



GABRIELLE MUNZER  
MAIN SEQUENCE



CARL JONES  
WNT VENTURES



MARK ROCKET  
KEA AEROSPACE'S

# Patience pays off for deep tech investors ↓

The success of Kiwi bio-tech company Aroa Biosurgery is the upshot of bold decisions, passion, and a shedload of resilience. Back in 2008, angel investors recognised the value of Aroa's homegrown deep tech to the world's medical sector and reached into deep pockets.

Now benefiting millions of people's lives with healing technology made from sheep forestomach, Aroa's products improve complex wound healing and help regenerate soft tissue in medical procedures worldwide. An upcoming range of new products, including soft tissue bioscaffolds to support breast implants after mastectomy, and reconstructive devices for trauma and major tissue loss, is set to add an estimated US\$1 billion to that potential market once commercialised.

While it might sound like the final frontier, deep tech can emerge out of an idea much closer to home. Deep tech companies take a scientific discovery, innovation or solution and commercialise it to make the world a better place. A case in point, Auckland-based Aroa - whose Māori name means understanding - relies heavily on a unique solution sourced from an abundant New Zealand resource - sheep.

CEO and founder Brian Ward says his company got off the starter blocks thanks to the substantial support of early angel investors, including K1W1, Sparkbox, NZGCP, Cure Kids Ventures, Movac and MIG.

"Without venture funding it's almost impossible to build this type of company from scratch," he says. "The barriers to entry are high and there is significant cost and time required to develop new products and commercialise them in a highly regulated life sciences industry."

Ward says Aroa leaned heavily on investors to get them over the initial hurdles.

"They provided funding for the first five or six years before we had any significant revenue and allowed the company to overcome inevitable set-backs and challenges," says Ward. "Plus, they made a substantial contribution at the Board level, offering much-needed support to the management team during critical periods."

Phil McCaw, founding Partner of Movac, says deep tech investment is challenging but gratifying.

"Deep tech is hard, it can be an absolute rollercoaster," he says. "You get a sniff of success and then it gets taken away and you have to dig deeper and invest again. You need patience, resilience, and tolerance for missed deadlines. But the rewards are worth it."

He says Aroa showed promise because it had a novel core IP position, a compelling founder, and wanted to make a difference.

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**Deep tech companies take a scientific discovery, innovation or solution and commercialise it to make the world a better place.**

"Deep tech opportunities typically result in deep IP positions that are usually harder to commercialise. However, when you get through all the barriers the shouts have higher certainty of returns because their market positions are more defensible. Deep tech startups also typically go after hard problems that drive societal benefits. Aroa Biosurgery is unlocking regenerative healing for everyone - making the technology affordable for all."

The global health impact was a key driver for Cure Kids Ventures investing in Aroa. Chief Investment Officer Caroline Quay agrees that deep tech investment requires grit.

“You need investors who understand the complexity of the sector and the long investment horizon,” she says. “Deep tech requires patient investors who will keep believing and, more crucially, keep following on through a company’s milestones. They need to be aware of the need for constant innovation and adaptation over longer timeframes, even with less certain timing over market acceptance. The rewards are high multiples for the ones who make it.”

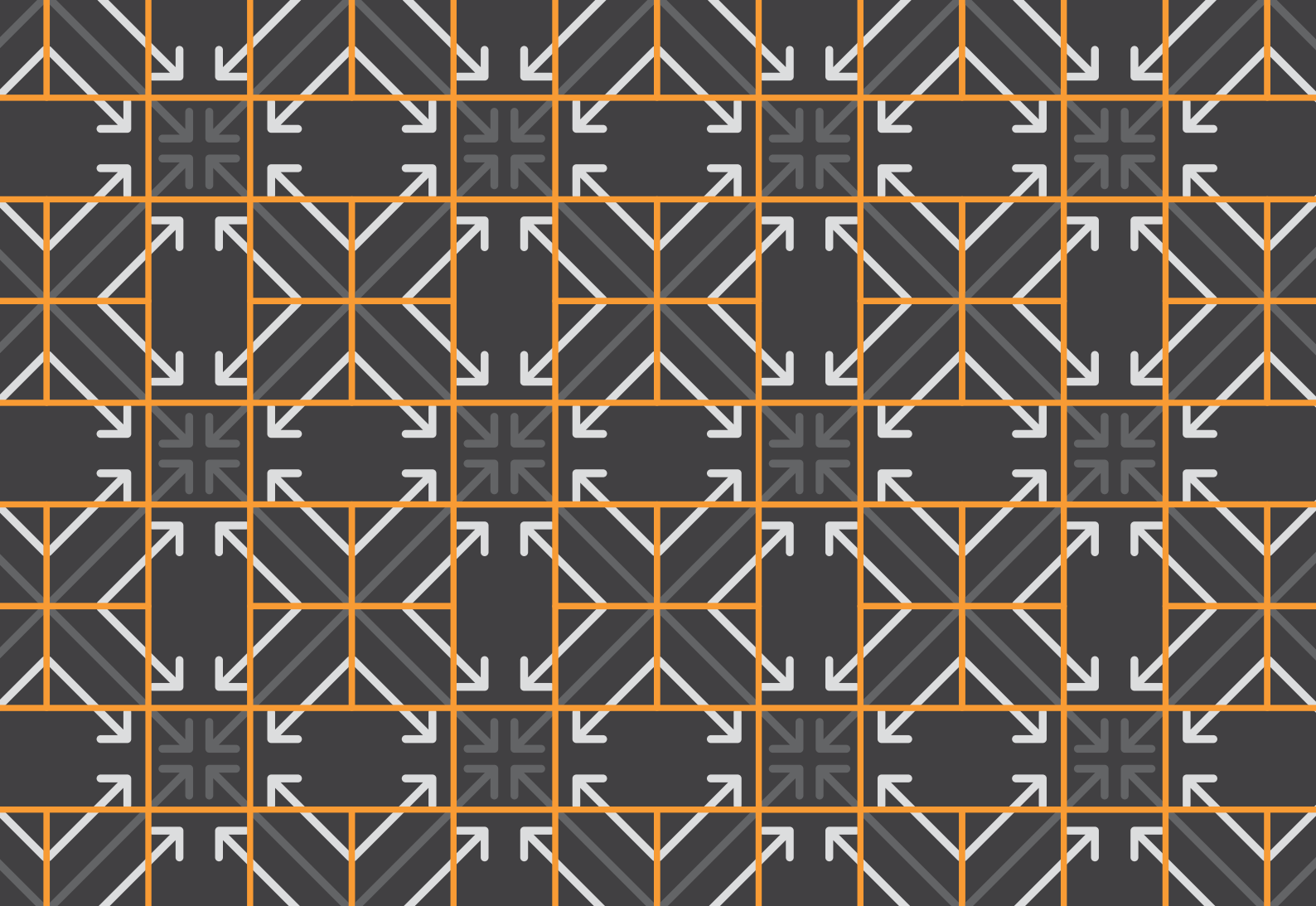
Anchored in New Zealand but serving a world market, Aroa’s success could be said to come down to the convergence of a combination of uniquely Kiwi factors; New Zealand’s special animal health status, our perfect raw material source, and Brian Ward’s understanding of veterinary science and human health.

After listing on the ASX in July this year with an initial IPO of \$45 million, Aroa Biosurgery continues to get solid support and Ward is keen to convince more angel investors to take the leap into deep tech.

“We need to create sufficient success from the companies that do get funded to show that these types of investments exist in New Zealand, can offer good returns and benefit society, here and around the globe.”







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