

**SCIENCE
POWERING
BUSINESS
INNOVATION**

**ANNUAL
REPORT**
HIGHLIGHTS
2016



ABOUT KIWINET

The Kiwi Innovation Network (KiwiNet) is a consortium of Universities, Crown Research Institutes and other publicly funded research organisations who are dedicated to taking a collaborative approach to research commercialisation. Together these research organisations represent a total combined research expenditure of over \$500 million and represent 70% of the publicly funded researchers in New Zealand.

KiwiNet's role is to empower people who are involved in research commercialisation by helping them to access the tools, connections, investment and support they need. By collaborating on projects, combining capability and sharing networks we can better leverage the limited resources available for commercialisation, and help one another achieve better commercial outcomes for New Zealand.

FUNDING

KiwiNet is funded from the shareholder research organisations, corporate partners and the Ministry of Business, Innovation and Employment.



**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HĪKINA WHAKATUTUKI

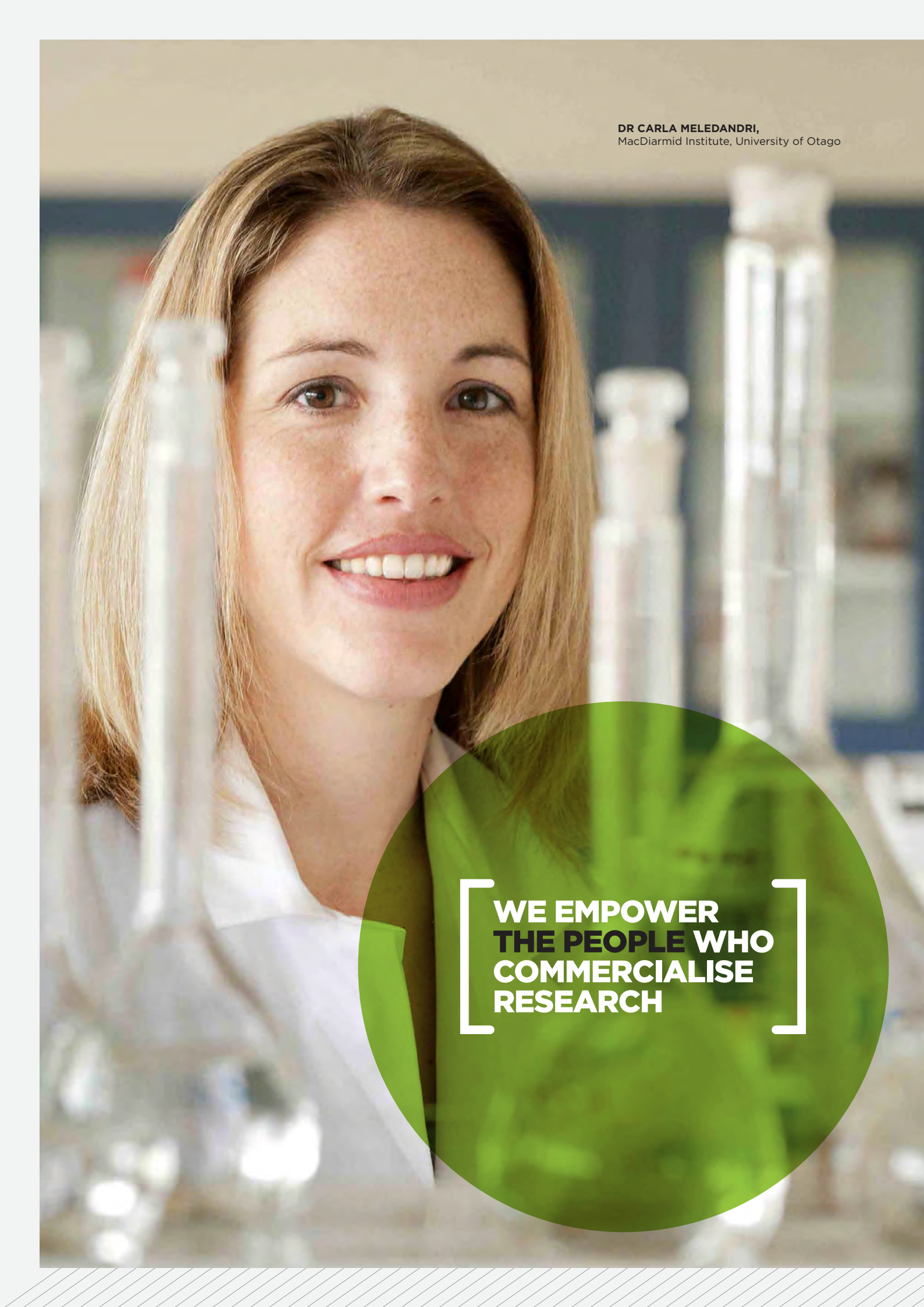
ANNUAL REPORT AND FINANCIAL STATEMENTS FOR YEAR ENDING 31 MARCH 2016

CONTENTS

6	Chairman's Report
9	General Manager's Report
10	Highlights
14	Strategy
18	Empower
20	Collaborate
22	Connect
30	Portfolio
33	Portfolio Examples



**INSPIRING GLOBAL
SUCCESS FOR
NEW ZEALAND**



DR CARLA MELEDANDRI,
MacDiarmid Institute, University of Otago

**WE EMPOWER
THE PEOPLE WHO
COMMERCIALISE
RESEARCH**

KiwiNet is a driving force in establishing New Zealand as a globally recognised leader in research commercialisation.

The image features a map of New Zealand in a light green color, with several dark green squares indicating specific locations. Surrounding the map are various logos and text for research and innovation entities:

- Plant & Food RESEARCH** (RANGAHAU AHUMĀRA KAI) with a leaf logo.
- AUTEL** with a stylized 'A' logo.
- agresearch** with the tagline "Farming, Food and Health. First" and "Te Ahuwhenua, Te Kai me te Whai Ora. Tuatahi".
- waikatolink** (University of Waikato Commercialisation) with a stylized 'W' logo.
- SCION** (forests · products · innovation) with a cross-like logo.
- viclink** with a stylized 'V' logo.
- CallaghanInnovation** with a stylized 'C' logo.
- GNS SCIENCE** (TE PŪ AO) with a red circular logo.
- E/S/R** (THE SCIENCE RESEARCH ENTITY) with a blue and black logo.
- Lincoln University** (Te Whare Wānanga o Aoraki) (CHRISTCHURCH, NEW ZEALAND) with a crest logo.
- Landcare Research** (Manaaki Whenua) with a leaf logo.
- UC UNIVERSITY OF CANTERBURY** (Te Whare Wānanga o Waitaha) (CHRISTCHURCH NEW ZEALAND) with a crest logo.
- OTAGO INNOVATION** (A UNIVERSITY OF OTAGO COMPANY) with a stylized 'O' logo.

Shareholders (universities and Crown research entities) as at 30 June 2016

CHAIRMAN'S REPORT

“The only way as a country we get richer is with innovation” a quote snatched from a recent blog which states the obvious.

What is not obvious is whether all the innovation stars are aligned; public policy and funding, university imperatives, Crown Research Institute mandates, Callaghan Innovation impacts and private sector appetites. Most of all, do the critical individuals get it, whether researchers at the discovery end or business operators at the application end?

The newly elevated Prime Minister of Australia late last year proved to be the poster child of transformation with his call for his country to embrace the “atmospherics of innovation”. What really appealed was the PM’s charge to the responsible Minister to “unleash his inner revolutionary”.

After five years of activism in this space, we at KiwiNet have concluded that what matters most of all is culture, collaboration and lifting the commercialisation capacity of the talent on offer.

The DNA we want to foster in the publicly funded research domain starts with the centrality of innovation and science as opposed to a status quo where too often commercialisation of discovery is marginalised.

KiwiNet has focussed on capability building in the research organisations, creating practical pathways to tech transfer and administering the PreSeed Accelerator Fund (PreSeed) to help launch worthy research on its way to commercialisation.

We are pleased to see emerging evidence that this is a proven path: take Avalia Immunotherapies, a company that started its commercialisation journey through the KiwiNet investment Committee. Promoted by Viclink and deploying technology from Victoria University and the Malaghan Institute for Medical Research, the project is now a fully-fledged company backed by early stage investors such as powerHouse and lead by the entrepreneurial researcher and now CEO Dr Shivali Gulab.

This is one of a number of successes that shows the quest to achieve a mind shift in researchers and institutions is starting to pay dividends.

Start-up weekends, GetFunded workshops, Mathematics for Industry NZ events, an Emerging Innovator Fund all have combined to better equip researchers to embark on a commercialisation track.

The engine room of KiwiNet is a very active Investment Committee which has both assessed some 60 projects over the cycle while embedding a culture of collaboration that has demonstrably transcended the prior silo type modus operandi.

The Investment Committee proved to be a victim of its own success when the three-year funding runway for PreSeed was threatened to be exhausted two thirds of the way into the contract. In a demonstration of the culture of collaboration some research organisations were willing to put on hold early stage projects and return PreSeed money to the pool so that some semblance of momentum could be maintained. It has to be said however that this stop/go situation is not conducive to building a pipeline and while refining our own project scheduling rules, KiwiNet has forcefully made the case for better allocation from the commercialisation budget for a proven programme.

KiwiNet itself is a start –up and our mission to see science powering business innovation has been hugely advanced by the calibre of the Board of Directors, Investment Committee members and management team.

In many senses Mark Stuart, the original sponsor of the concept from the University of Waikato, is the ‘Father’ of KiwiNet. Mark leaves the Board this year justifiably proud of seeing his vision come to fruition. His position as an Independent is taken by Ngaio Merrick, an established and energetic investment professional and we welcome her fresh thinking.

One more transition of note is the move by Duncan Mackintosh formerly CEO of WaikatoLink to head the NZ arm of the Medical Research Commercialisation Fund. This represents real additionality to the eco-system and in thanking Duncan for his contribution to KiwiNet we look forward to collaborating with him in another capacity.

Andrew Turnbull doubles as both a Board member and Chairman of the Investment Committee where all of KiwiNet’s heavy lifting is done. Andrew is unfailingly rigorous but solicitous and all project sponsors are the better for having gone through the process whether ultimately funded or not.

The two institutional representatives, David Hughes from the CRI pool of shareholders and Geoff Todd from the university sector, both bring the mix of practical know how and mission ambition that are must have ingredients for any successful Board.

Dr Bram Smith and his very able bench of colleagues are inventive and tireless in their pursuit of the KiwiNet cause, not a straightforward proposition when you are courting politicians, officials, public and private sector players alike. Bram’s coup of the year was to spring \$250k from a philanthropic fund to finance a dozen emerging innovators. Our thanks to the Norman F. B. Barry Foundation for having the foresight to invest in a head start for promising young researchers. As these bright sparks make their mark they will spread the word on how they got their start in the commercialisation journey.

As befits a player aiming to be a force for innovation we continue to try new ways to put the commercialisation fire in the belly of our researchers.

Thanks to all our shareholders and collaborators who play their part in this cause.



Hon Ruth Richardson / June 2016



KiwiNet

Kiwi Innovation Network

Research
Commercialisation
Awards

Science powering
Business innovation

MinterEllison
RuddWatts
LAWYERS

**“WHAT MATTERS
MOST IS CULTURE,
COLLABORATION
AND LIFTING
COMMERCIALISATION
CAPACITY.”**

MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT
Kaitiaki Takekiriwhiri



**“TOGETHER WE’RE
UNLOCKING THE
HUGE POTENTIAL
OF SCIENCE TO
POWER BUSINESS
INNOVATION”**

GENERAL MANAGER'S REPORT

An invitation to visit Chile recently presented an opportunity to re-evaluate the rationale underpinning KiwiNet. Driven by low copper prices and the need to power up economic growth the Chilean government is boosting support for research organisation tech-transfer. They see KiwiNet as a best practice model to emulate. Chilean government officials talked about “connecting technology with the community”, building a “critical mass of universities” through collaboration, and promoting a Tech-Transfer “culture change” amongst researchers - all core principles of KiwiNet.

Here in New Zealand, the economic impact of tech-transfer at research organisations is becoming much more widely recognised. Two independent reports on tech-transfer commissioned by the government were released in 2015. They validated the important impact of the PreSeed Accelerator Fund (PreSeed) and the Commercialisation Partner Network (CPN). The ten-year review showed \$43m of PreSeed invested has resulted in \$200m of business investment, 460 jobs, 27 start-ups and export earning potential of \$3 billion.

The government is taking notice and support for tech-transfer is growing. Both PreSeed and CPN are now part of the government's Business Growth Agenda to foster business innovation. The government has committed to increasing PreSeed funding by \$3m per annum from July 2016. KiwiNet's contract for CPN funding has also been renewed for 3 more years. This increased, longer term commitment from government will enable KiwiNet to continue core activities, while exploring bold new initiatives. Particular attention is focused on 3 key imperatives: overcoming the lack of tech-transfer resources, inspiring a culture of tech-transfer amongst researchers and demonstrating economic impact.

KiwiNet's culture change activities start with our training programmes, which have especially targeted early career researchers. In 2015, building on KiwiNet's popular pitching workshops, we worked with CreativeHQ to run New Zealand's first Start-up Weekend for Science. With support from the Ministry of Business Innovation and Employment (MBIE), this evolved further into a new 2-day 'GetFunded' workshop, that has proved so popular we'll run 3 more in 2016. A further 100 researchers attended KiwiNet's week-long "Mathematics in Industry" event, which further demonstrated how hungry researchers are to connect with business.

Ambitious researchers need investment to pursue tech-transfer opportunities. Thanks to the Norman F. B. Barry Foundation and support from Callaghan Innovation, we raised \$270,000 to establish the Emerging Innovator Fund. This provides \$25,000 for early career researchers to develop a prototype of a clever idea in partnership with business. The result has been fresh research talent identified and a new pipeline of opportunities.

The PreSeed investment pipeline has continued to grow with 54 projects presented to the committee and 93 new project notifications. This is despite the Investment Committee having a challenged year as PreSeed investment became stretched. However, KiwiNet's collaborative culture kicked in with research organisations putting early stage projects on hold to free up PreSeed. Otago Innovation also generously transferred \$200k from their PreSeed allocation despite their own strong pipeline.

The Commercial Mentor Programme has played an important part in pipeline growth in 2015. The programme helps research organisations overcome limited resources and access external expertise. In the past 12 months 38 projects have received commercial mentor support through KiwiNet. The result has been more project plans being prepared to a higher quality, along with the upskilling of tech-transfer staff.

Partnerships are critical for KiwiNet and our long term corporate partners BNZ and MinterEllisonRuddWatts have been joined by new partners Baldwins IP and PwC. They all provide a range of support, especially with PR opportunities and free commercial mentoring for 23 projects. Callaghan Innovation, CreativeHQ, Licencing Executives Society (LESANZ) and others have also been invaluable partners. Thanks to these organisations, KiwiNet has attracted over \$400,000 of funding from sources outside of CPN and PreSeed in the past year.

KiwiNet's activities are continuing to uncover a steady stream of exciting new technologies and talented emerging innovators in the science community. With new partnerships, new initiatives and new PreSeed investment from government in 2016, the future is promising for tech-transfer. Building on KiwiNet's core principles of research organisation collaboration, business engagement and empowering innovators we will together unlock the huge potential of science to power business innovation.



Dr Bram Smith / June 2016

UPDATE: IN JUNE 2016 THE MINISTER OF BUSINESS, INNOVATION AND EMPLOYMENT ANNOUNCED KIWINET WOULD RECEIVE \$10.318 MILLION OF PRESEED ACCELERATOR FUNDING TO INVEST OVER 3 YEARS FROM JULY 2016.

HIGHLIGHTS

Operational Funding

The Ministry of Business Innovation and Employment (MBIE) has confirmed Commercialisation Partner Network (CPN) funding through to June 2018 for KiwiNet, Return on Science and CRIS. With this investment, we are determined to create the best system for turning research ideas into commercial value to grow the pipeline of research commercialisation successes.

KiwiNet Awards

The third KiwiNet Research Commercialisation Awards brought together the innovation community to celebrate successes and inspire others. 265 people attended the evening reception where the 11 finalists and winners were showcased in style.

Commercial Mentors

KiwiNet's Commercial Mentor programme has expanded beyond expectations in 2015, with 38 connections created between commercial mentors and projects over the last 12 months. This includes 16 projects with MinterEllisonRuddWatts, 7 with Baldwins and 6 with emerging innovators. KiwiNet brings in these external experts to support research organisations on everything from identifying new opportunities to mentoring some very high potential projects. Commercial Mentors are driving significant pipeline growth while helping research organisations overcome limited tech transfer resources.

StartUp Weekend

Building on KiwiNet's popular pitching workshops, we worked with CreativeHQ to run New Zealand's first Start-up Weekend for Science. There were 44 attendees, including 22 researchers.

Partnerships

New Shareholder

GNS Science became the thirteenth shareholder of KiwiNet, confirming their support for the collaboration and vision behind KiwiNet.



Commercialisation Training

271 researchers from 68 organisations and 131 tech transfer professionals from 62 organisations attended KiwiNet commercialisation training courses last year.

Industry Engagement

Over 230 researchers and industry representatives attended KiwiNet's industry engagement events in the last year. These forums brought together researchers and industry representatives to identify opportunities for R&D collaboration in areas including water management, sensors in the built environment and the mussel industry.

KiwiNet Emerging Innovator Fund

With generous support from the Norman F. B. Barry Foundation, KiwiNet launched the Emerging Innovator Fund. It's designed to help early career research scientists with a clever new idea and commercial interest, take it to market. 11 researchers have been awarded \$25,000 each, including professional services from MinterEllisonRuddWatts and Baldwins.

Mathematics-In-Industry (MINZ)

6 companies each paid \$6,000 to have 100 mathematicians work in teams on their business challenges for a week. In many cases bonds were formed between the mathematicians and companies and work continued on well beyond the event.

Commercialisation Partnerships

Over the past year KiwiNet has partnered with many different organisations to deliver training workshops for researchers and industry engagement activities. This year KiwiNet partnered with MacDiarmid Institute, Cawthron Institute, University of Otago and University of Waikato to run training commercialisation training workshops for researchers. KiwiNet also partnered with organisations such as Sanford, Callaghan Innovation, British High Commission, Beef & Lamb and Farm IQ to run three industry engagement events.

CORPORATE PARTNERSHIPS



Corporate Partnerships

KiwiNet was delighted to welcome the Norman F. B. Barry Foundation as a new Corporate Partner in 2015, along with renewed sponsorship agreements with:

- Strategic Partner, Bank of New Zealand – provided substantial support around events and promotion in 2015, helping us raise the profile of research commercialisation.
- Major Partner, MinterEllisonRuddWatts – provided free legal advice to 16 research commercialisation projects from across the country to ensure early stage projects get off on the right foot.
- Major Partner Baldwins has provided IP expertise to 10 research commercialisation projects and Emerging Innovators.
- Sciencelens provides excellent photographic services at our Awards events.

It's exciting to work alongside these leading corporates who are bringing their expertise and support to boost science-led innovation in New Zealand.



MinterEllison
RuddWatts

intellectual
property
Baldwins™

NORMAN F. B. BARRY
FOUNDATION

sciencelens.
PHOTOGRAPHING
SCIENCE, INDUSTRY
AND TECHNOLOGY

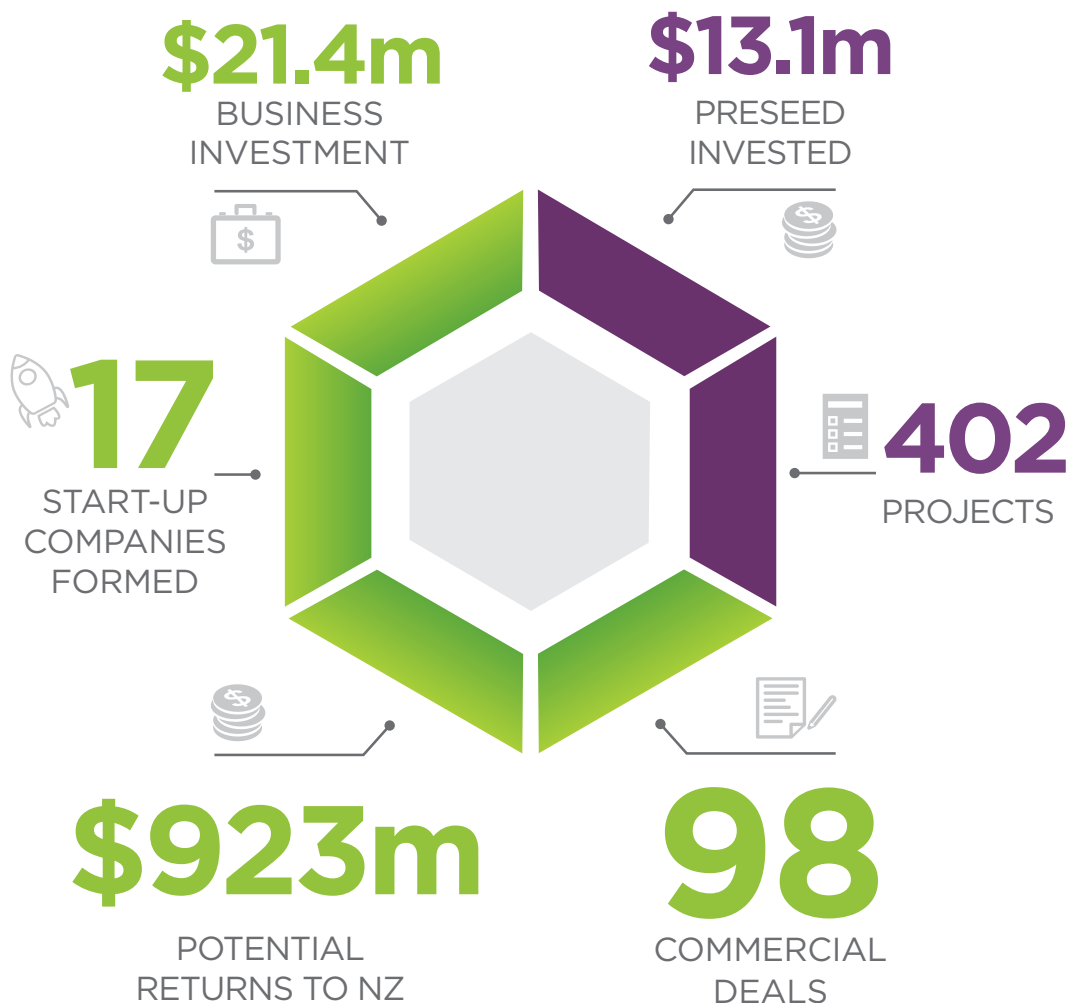
HIGHLIGHTS

PreSeed Investment

In July 2013 KiwiNet began a three year PreSeed Accelerator Funding (PreSeed) contract with the Ministry of Business Innovation and Employment (MBIE). With the current PreSeed funding due to end, KiwiNet will submit a proposal for a new three-year fund, starting July 2016. With AgResearch pulling out and GNS Science and Malaghan Institute joining, KiwiNet's PreSeed pool will increase to 13 research organisations operating a combined investment of \$7.5 million. KiwiNet has become New Zealand's national network of commercialisation collaborators.

Investment Committee Partnerships

With 13 shareholders and 13 pooling organisations collaborating through the KiwiNet Investment Committee, it now represents approximately 70% of researchers in public research organisations in New Zealand. Over the 12 months to March 2016, 54 projects have been presented to the Investment Committee from 14 different research organisations.



KIWINET'S UNLOCKING NEW COMMERCIAL OPPORTUNITIES

"It's been another strong year for the KiwiNet Investment Committee with some fabulous developments for existing projects, plus a number of exciting new projects and spinout ventures. While the environment has been challenging, it is particularly encouraging to see the government acting decisively to provide certainty in expanding the PreSeed funds available. There is increased activity from Tech Incubators and the establishment of New Zealand operations for MRCF (Medical Research Commercialisation Fund). This backdrop stands us in good stead. With increased support comes increased expectation and responsibility. KiwiNet stands ready to deliver. We look forward developing the capability and uptake of the commercialisation challenge within all of our member organisations, across the length and breadth of New Zealand."



ANDREW TURNBULL - CHAIRMAN, KIWINET INVESTMENT COMMITTEE



KIWINET INVESTMENT COMMITTEE MEETING - UNIVERSITY OF CANTERBURY, CHRISTCHURCH, MAY 2016

STRATEGY

KiwiNet's purpose: to empower and propel public research organisations to world class commercialisation of their ideas, intellectual property and capability to boost economic outcomes for New Zealand.

OUR VISION

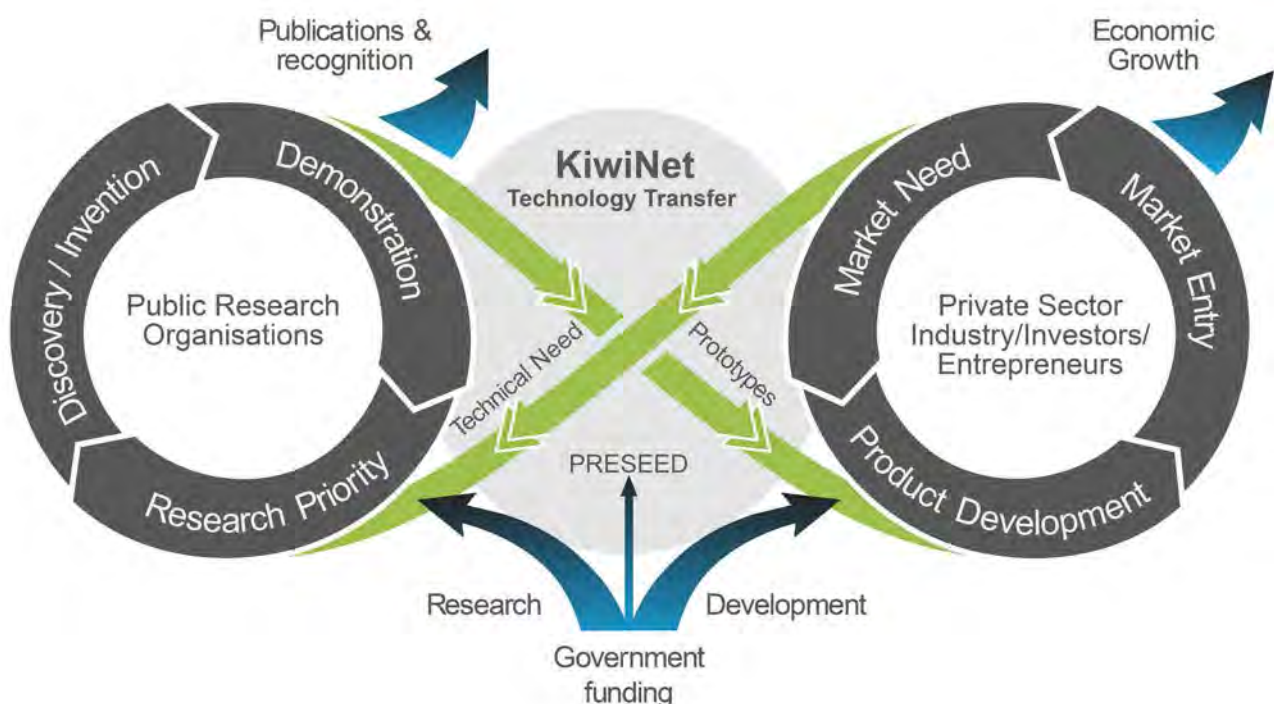
Kiwi scientists
powering business
to push the frontiers
of high-tech
innovation

OUR MISSION

To create the best system
for turning research ideas
into commercial value.

KiwiNet seeks to be a driving force
that establishes New Zealand as
a globally recognised leader in
research commercialisation.

CONNECTING SCIENTIFIC DISCOVERY WITH COMMERCIAL ENTERPRISE.



STRATEGIC PRIORITIES

Empower

Energise New Zealand research commercialisation capability by building a strong professional network with the best professional development, expert support and resources available.

Collaborate

Drive a deeply embedded culture of nationwide collaboration in the research commercialisation community by constantly bringing people together in an environment of openness and trust.

Connect

Build a thriving web of interconnectivity between research organisations and business by regularly bringing scientists and business people together and encouraging the open exchange of ideas.

Portfolio

Redefine best practice in effective and efficient investment by leveraging rigorous expert review, transparent decision making and a focus on supporting commercialisation staff to reach high standards.

**\$10.3m
PRESEED TO INVEST***

Logos included in the graphic:

- NIWA Taihoro Nukurangi
- Plant & Food RESEARCH RANGAHAU AHUKARA KAI
- waikatolink University of Waikato Commercialisation
- OTAGO INNOVATION A UNIVERSITY OF OTAGO COMPANY
- SCION forests - products - innovation
- Lincoln University Te Whare Wānanga o Aoraki CHRISTCHURCH, NEW ZEALAND
- UC UNIVERSITY OF CANTERBURY Te Whare Wānanga o Hātikā UNIVERSITY OF CANTERBURY
- GNS SCIENCE TE PŪ AO
- viclink
- CAWTHRON INSTITUTE
- CallaghanInnovation
- Landcare Research Manaaki Whenua
- agresearch Farming, Food and Health. First! Whānau, Te Ahi Hōi, Whānau, Te Ahi Hōi
- E/S/R
- AUTEL
- MALAGHAN INSTITUTE OF MEDICAL RESEARCH

Announced by MBIE in June 2016.

OUR CORE VALUES

People and their connections

Innovation is first and foremost about people and their connections.

Collaboration not duplication

KiwiNet is a facilitator, working with complementary organisations to achieve outcomes through collaboration.

Trusted neutral party

KiwiNet must be recognised as an independent organisation that is trusted to be fair and balanced.

New and innovative approaches

KiwiNet must have a maverick spirit, striving to take new approaches, to create new conversations between new people and to encourage new talent that underpins future innovation.

Speed and efficiency

KiwiNet must be nimble and dynamic, running between the feet of giants, acting as a catalyst for new opportunities and ensuring ideas become self-sustaining quickly.

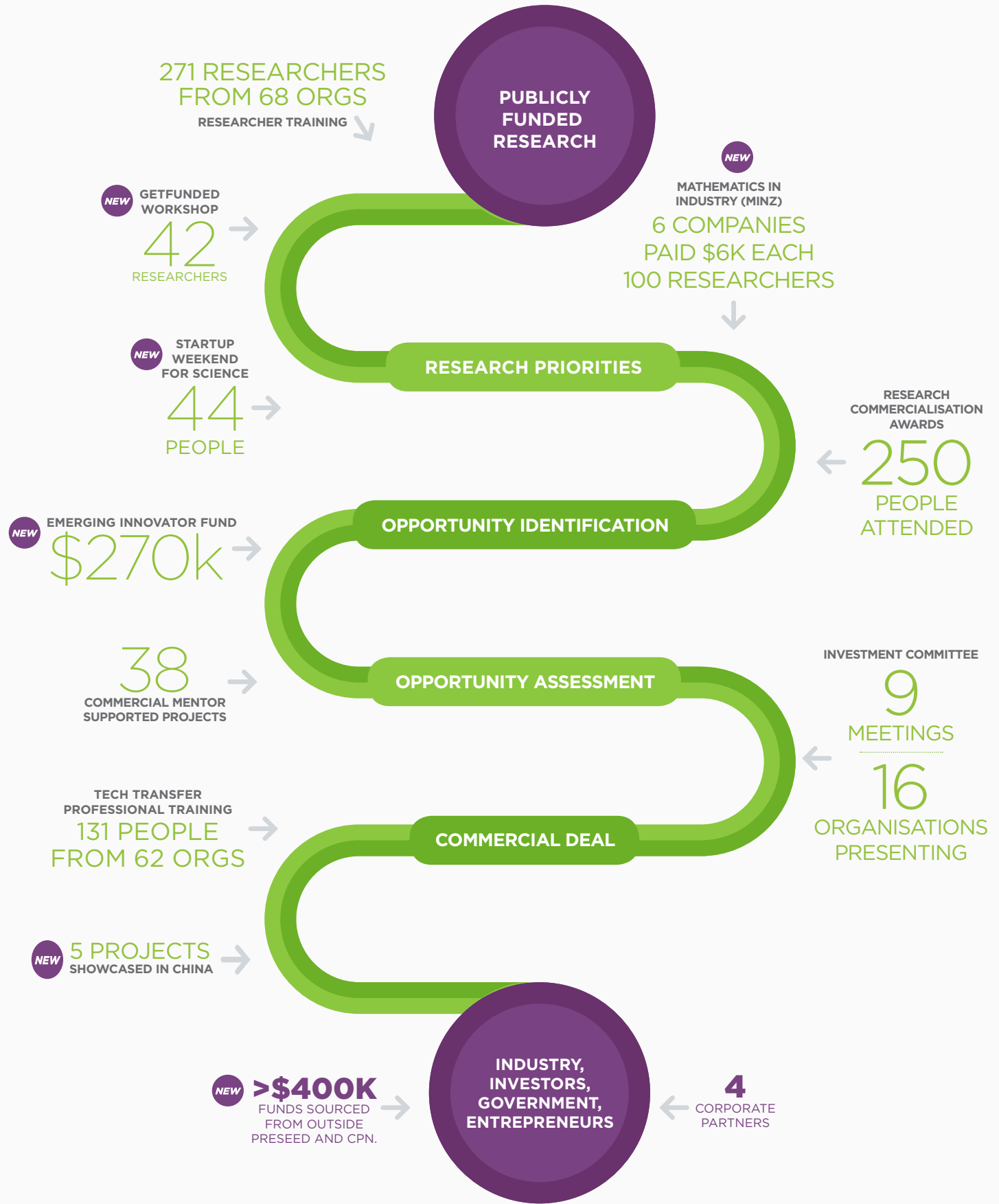
WHAT MAKES US DIFFERENT

KiwiNet has its roots in science-driven innovation, creating new channels to bring scientific ideas to commercial use. We focus on inspiring and rewarding entrepreneurial researchers and lifting the performance of technology transfer professionals. KiwiNet is engaged, responsive, and takes a collaborative approach to all we do. The table below summarises some of the key points of difference between KiwiNet and other support organisations in the innovation system.

KIWINET	OTHER SUPPORT ORGANISATIONS	DIFFERENTIATORS
Investigator-led innovation, driven by market aware research	Industry-led innovation, driven by firms and private investors	While others are focused on industry-led innovation, where businesses set priorities, KiwiNet strives for market aware research, where scientific exploration is coupled with greater awareness and engagement with business. This approach has led to a strong track record of disruptive business innovation emerging from serendipitous scientific discovery.
Start with technology, find the pathway to market	Start with pathway to market, find the technology	
Disruptive innovation driven by scientific exploration.	Sustaining innovation driven by business needs.	
Entrepreneurial research	Research excellence	KiwiNet focuses on inspiring and rewarding entrepreneurial researchers that convert scientific knowledge into commercial value.
Founding start-ups	Supporting start-ups	KiwiNet creates a strong foundation for start-up opportunities that private investors can grow.
On demand prototyping and commercialisation funds coupled with feedback & advice	Large research grants annually, 10% chance of success with minimal feedback	While most funding available to research organisations is through large grants provided at specific intervals, KiwiNet provides commercialisation funds on demand through a highly interactive process.
Embedded collaboration	Fragmented engagement	Collaboration between publicly funded research organisations (PROs) is typically fragmented, involving a select group around a specific project. For KiwiNet, collaboration is embedded in everything we do and is open to all PROs to lift everyone's performance.

TECHNOLOGY TRANSFER

2015-16 HIGHLIGHTS



EMPOWER

Energising NZ research commercialisation capability by building a strong professional network with the best professional development, expert support and resources available.

ACTIVITIES

COMMERCIALISATION TRAINING

Training programmes ranging from practical commercialisation workshops for researchers through to advanced professional development for commercialisation staff.

RESOURCE LIBRARY

A library of legal and process templates and case studies to support research commercialisation staff, reduce legal costs and improve commercialisation processes.

COMMERCIAL MENTORS

Commercial Mentors are driving significant pipeline growth while helping research organisations overcome limited tech transfer resources

EXPERT ADVICE & ENTREPRENEUR CONNECTIONS

Helping commercialisation staff to connect with experts and mentors to provide advice and guidance.

KIWINET STAFF

KiwiNet's team works in partnership with research organisations and commercialisation professionals across New Zealand to deliver KiwiNet's strategic objectives.

2015 OUTCOMES

KiwiNet had 271 researchers from 68 organisations and 131 tech transfer professionals from 62 organisations received KiwiNet commercialisation training last year.

22 templates, guides, and forms now exist on the resource library. These were downloaded over 790 times in the 2014 year. Through collaboration with Return on Science, most public research organisations in New Zealand are now using the same process templates developed by KiwiNet to access and report on PreSeed investment.

KiwiNet's Commercial Mentor programme has continued to expand beyond expectations in 2015, with 38 connections created between commercial mentors and projects over the last 12 months. KiwiNet brings in these external experts to support research organisations on everything from identifying new opportunities to mentoring some very high potential projects to drive commercial success.

KiwiNet's core staff of 7 are currently supplemented with 1 full time secondment from Callaghan Innovation and 2 student interns from the University of Waikato. Our staff run the investment committee, work with our partners to prepare business plans for PreSeed investment and run events and initiatives to support research commercialisation.

"The value the KiwiNet Investment Committee brings to the innovation ecosystem is enormous. The opportunity to seek advice at any stage of the product lifecycle in such a supportive environment is invaluable. The expertise and experience of the committee has really helped us stress test commercial assumptions in our business cases. The 'network node' that the committee creates considerably reduces the degrees of separation between NZ's research organisations and our potential markets and partners."

JEREMY JONES, SENIOR COMMERCIALISATION MANAGER, VICLINK





38

PROJECTS WORKED ON BY COMMERCIAL MENTORS

- 17 mentors
- from 12 different organisations



790+

DOWNLOADS

- 22 Best practice templates, guides and forms



402

RESEARCHERS AND TECH TRANSFER PROFESSIONALS

- received KiwiNet commercialisation training



COLLABORATE

Driving a deeply embedded culture of nationwide collaboration in the research commercialisation community by constantly bringing people together in an environment of openness and trust.

ACTIVITIES

INVESTMENT COMMITTEE

A joint committee of research organisations and independent experts, who assess new projects, allocate PreSeed investment and design initiatives to support commercialisation.

GOVERNMENT AGENCY CONNECTIONS & COMMERCIALISATION CENTRE CONNECTIONS

KiwiNet connects with Government departments who are working in similar and complementary areas.

PLATFORMS AND THEMES

Encouraging research organisations to work together to target platforms where New Zealand has a strong national capability and good access to strong market demand.

PARTNER LED ACTIVITIES

Encouraging research organisations to lead activities that leverage their core strengths but align with the collaboration principles of KiwiNet. Ensure all public research organisations are included and can benefit from these activities.

2015 OUTCOMES

Malaghan Institute and GNS Science have now joined KiwiNet's combined PreSeed investment pool, taking the number of pooling organisations to 13. With 13 shareholding organisations sitting on the Investment Committee, a total of 16 research organisations are represented at KiwiNet Investment Committee meetings. The committee is established around principles of openness and trust where organisations see each other's projects, share expertise and combine IP to maximise the chances of successful outcomes. The shared PreSeed pool ensures the best projects receive investment when they need it. The Ministry now requires all research organisations to notify, or seek approval from either KiwiNet or Return on Science Investment Committees when allocating PreSeed investment into projects.

Over the 12 months to March 2016, 54 projects have been presented to the KiwiNet Investment Committee from 14 organisations. Each project is discussed amongst the research organisation representatives and independents, combining expertise and connections to help accelerate commercialisation.

KiwiNet has been working closely with MBIE to provide a clear picture of research commercialisation activities in New Zealand. Reports provided to MBIE include:

- The first ever 10-year review of PreSeed outcomes.
- An annual report on KiwiNet's PreSeed portfolio.
- An annual report of Commercialisation Partner Network outcomes.

KiwiNet has been running activities to encourage greater collaboration amongst research organisations and connections with industry in a number of sectors. Over the past 12 months the specific themes have been Water Management, Aquaculture, Sensors, AgriTech and Natural Products. These initiatives have been well received and help promote greater engagement between researchers and business.

KiwiNet encourages joint initiatives to deliver training and foster business engagement. Through partnerships with other organisations in the innovation ecosystem we achieve greater impact from our activities. Examples of active partnerships that we have in place include:

- NZBio conference - KiwiNet partnered with Callaghan Innovation, the British High Commission and Grow Wellington to host a session showcasing NZ science opportunities to an international audience.
- Biopesticides - Partnered with Lincoln University to host an EU expert on commercialisation of BioPesticides.
- Partnered with Callaghan Innovation and British High Commission to run the 2015 NZ Institute of Food Science Technology event.
- Partnered with Massey University to run the Maths in Industry 2015 event.



54 PROJECTS AND PREVIEWS PRESENTED TO THE INVESTMENT COMMITTEE*.



13 PUBLIC ORGANISATIONS POOLING PRE-SEED INVESTMENT.



14 DIFFERENT RESEARCH ORGANISATIONS PRESENTED PROJECTS TO THE KIWINET INVESTMENT COMMITTEE*.

*IN THE YEAR TO MARCH 2016.

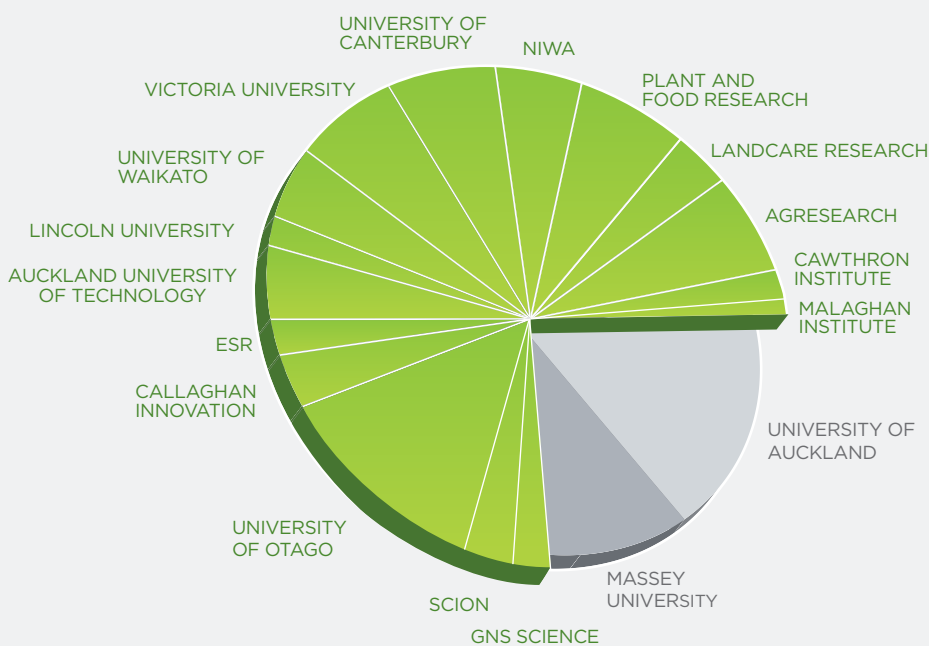


5 PARTNER LED COLLABORATIVE ACTIVITIES INCLUDING CAPABILITY BUILDING AND INDUSTRY CONNECTION INITIATIVES.



"The Malaghan Institute is delighted to be joining with KiwiNet in 2016. As we strive to find new treatments for disease the commercial savvy and experience around the Investment Committee table will be crucial in helping us make our ideas ready for investment. By pooling and drawing on the strengths of the membership, we all benefit as a result."

MIKE ZABLOCKI, CHIEF OPERATING OFFICER, MALAGHAN INSTITUTE



~6,500

researchers from NZ's public research organisations are now represented around the KiwiNet Investment Committee table.



CONNECT

Building a thriving web of interconnectivity between research organisations and business by regularly bringing new people together and encouraging the open exchange of ideas.

ACTIVITIES

CORPORATE PARTNERS

These partnerships provide additional funding, but more importantly, represent a group of large corporate supporters who are keen to get in behind KiwiNet.

NATIONAL INNOVATION DATABASE

A central repository of technologies, research capability, patents & commercialisation staff profiles from NZ's research organisations.

BUSINESS CHALLENGES

Providing opportunities for research and business to connect over a common theme, assisting the development of disruptive solutions to industry problems.

INTERNATIONAL CONNECTIONS

Connecting with similar organisations overseas to identify opportunities for collaboration and leverage their connections into foreign markets.

PROMOTION & SIMPLIFYING EXTERNAL ENGAGEMENT

Building awareness around the activities of KiwiNet, the technology transfer professionals and the research organisations to encourage people and make it easier for them to engage.

INNOVATION CALENDAR

The Kiwi Innovation Calendar provides a one stop shop to locate events in the innovation space.

2015 OUTCOMES

KiwiNet has secured sponsorship partnerships with BNZ, MinterEllisonRuddWatts, PwC, Baldwins and ScienceLens to provide funding and in-kind support to KiwiNet activities and projects. The MinterEllisonRuddWatts buddy programme has provided valuable commercial mentoring across 17 different projects over the past 12 months. Baldwins offers expert IP advice for partner projects and to KiwiNet Emerging Innovators.

The Innovation Database now contains 793 entries from across 33 organisations, representing the most comprehensive national portfolio of its type in New Zealand.

Following the success of the KiwiRail business challenge initiative, KiwiNet partnered with Sanford, the Salmon industry, Seafood Innovation and MPI to run similar events in the Aquaculture sector. KiwiNet also worked with a network of applied mathematicians to organise the Maths in Industry (MINZ) study group where businesses pay \$6,000 to put up specific challenges and 100 mathematicians from across New Zealand got together for one week to find solutions.

KiwiNet is building collaborations with technology transfer partners in key countries. Connections and projects are now being exchanged with over five organisations across China and the Asia region. Initiatives with Knowledge Commercialisation Australasia (KCA), British High Commission and the Chilean Economic Development Agency (Corfo) are growing.

KiwiNet has released 10 press releases in the past 12 months. There have been 97 media publications about KiwiNet projects during this time. The unique website hits on kiwinet.org.nz have increased 43%.

The Kiwi Innovation Calendar has proven to be a very popular tool used by stakeholders. It featured 340 events for the 2015 period.



225

researchers and industry representatives attended KiwiNet's connect events.



97

media and opinion releases about KiwiNet activities & projects

- > 17,341 website visits
- > 137 hours of YouTube views
- > 1,790 Twitter followers



638

Innovation Database entries

- > 199 projects
- > 33 organisation profiles
- > 56 patents
- > 199 staff profiles
- > 95 research capability profiles
- > 56 plant variety rights



5069

visits to KiwiNet Innovation Database



CONNECT

Mathematics in Industry (MINZ)

- Riding the Sine Wave



Background

Mathematics-in-Industry NZ (MINZ) events offer a collaborative approach to industry problem solving, where mathematical scientists tackle real life problems shared by companies.

This week-long intensive period of collaborative brain-storming is a great way of solving problems in industry and the environment.

Emeritus Professor Graeme Wake, a dab hand of 54 study groups internationally, approached KiwiNet to support a nationally focused New Zealand event. It was so successful, we're now planning MINZ 2016.

MINZ events deliver:

- Methods to solve complex industrial problems
- Links with mathematical scientists from top universities and national laboratories across the country
- Access to advanced computing solutions and environments
- Highly cost effective access to scientific advice
- Fresh input of new ideas.

6 COMPANIES
EACH PAID → **\$6,000**
to have ↓

100 mathematicians
working in teams on
their challenges for
a week.

The Event

KiwiNet's Chair, Hon Ruth Richardson, opened the event addressing the gathered number crunchers. She inspired them to make the most of the week, not just meeting fellow mathematicians, but using it to network with the industry representatives. Ruth's speech resonated with the crowd, and they were fortified through the comments of Professor Shaun Hendy who spoke also. The invited international speaker, Dr Maria Bruna from Oxford University, shared some enlightened experiences from other challenges that she had participated in around the world.

Find out more and watch the MINZ highlights video at www.minz.org.nz



Emeritus Professor Graeme Wake,
Massey University

The Business Challenges



CHALLENGE 1 **Fisher and Paykel**

Can math find a solution to provide accurate end points of the dry cycle to account for bunched wet clothes.



CHALLENGE 2 **Fonterra**

Can math provide for better safety procedure setup providing heightened assurance that foreign objects are detected and removed from a moving stream of milk powder.



CHALLENGE 3 **Eyedentify (now Auror)**

Looking to build an algorithm to sort through massive data to improve the assessment of identifying the chance a person will shoplift when they enter a shop.



CHALLENGE 4 **Compac Sorting**

Standardizing the positioning of multiple NMR machines that scan for fruit quality as they move along a processing line.



CHALLENGE 5 **Livestock Improvement Corporation**

Build a mathematical strategy to filter through the 100 years of herd data to provide useful and commercially viable information for dairy farmers



CHALLENGE 6 **Transpower**

The integration of power generated between the North and South Island into the National circuit can cause issues, can mathematics solve creeping time errors?

KIWINET RESEARCH COMMERCIALISATION AWARDS 2015

In 2015 KiwiNet ran New Zealand's Research Commercialisation Awards for the third year. The KiwiNet Awards celebrate the ability for science to drive business innovation, putting the spotlight on those who successfully commercialise clever Kiwi ideas.



This **PREMIER EVENT** is now highly anticipated on New Zealand's innovation calendar, raising the profile of research commercialisation nationwide.

Where: Auckland, Viaduct Events Centre

When: Wednesday 17th June, 2015



265
ATTENDEES



6
AWARDS
CATEGORIES



11
FINALISTS



2015 KIWINET AWARD WINNERS



Winner of the BNZ Supreme Award, People's Choice Award and Researcher Entrepreneur Award

Professor Andy Buchanan

Professor Andy Buchanan is pioneering research at the University of Canterbury that has lifted engineered timber buildings into serious contention for the Christchurch rebuild after the devastating earthquakes of 2010 and 2011.

He and his team have initiated a step-change in the perception of structural timber, allowing direct competition with concrete and steel for large span and multi-storey buildings, for the first time. His innovative products allow architects to design structures not previously possible with traditional materials. He is also leading the charge to commercialise these new timber building products with industry partners into the global market.

In 2010 he was also instrumental in the establishment of an industry consortium, creating deep industry engagement channels for him and his collaborators ensuring research outcomes with strong industry relevance.



Winner of the Commercialisation Collaboration Award

Biopolymer Network

The Biopolymer Network Limited (BPN), a New Zealand-based research company, is focused on producing bio-based products and process for commercial applications. Three of New Zealand's leading research organisations, Plant & Food Research, AgResearch and Scion have come together to create scientific and technological excellence in the conversion of sustainable natural resources to biopolymers and biocomposites. The company is governed by a Board of six directors comprising two appointees from each of the shareholding research partners.

BPN has, through original research, developed and continues to develop its portfolio of intellectual property in biopolymers, bio-based specialty chemicals, bio-composites, bio-foams and moulded structures. Working together, the key partners in the Biopolymer Network are actively taking these products into the market place both to achieve our vision of a sustainable bio-based world and to create wealth.



Winners of the MinterEllisonRuddWatts Research & Business Partnership Award

Comvita and the Institute for Innovation in Biotechnology at The University of Auckland



Comvita New Zealand Limited's Innovation team is physically co-located at the Institute for Innovation in Biotechnology at The University of Auckland and has been collaborating on various research projects with the different departments at the university for the past five years. The partnership is a prime example of the triple helix model of university, industry and government collaboration. In this partnership, all three parties are intertwined to provide and receive benefit from each other.

- Comvita is interested in a variety of skill sets available throughout the university and fosters young talents through internships and post-graduate research projects. The Comvita Innovation team has worked together with the university's academic staff and co-supervised over 50 students in the last three years.
- With this model, Comvita can access wide-ranging expert knowledge at the university as well as respond to a diverse range of research needs of the business. This leads to IP generation and strengthening of Comvita's core product value proposition.
- Students conduct Comvita's research projects as part of their academic programme or internship which equips them with industry experience. This makes them highly employable, and Comvita has employed many of the senior students at the end of their projects.
- Many of the student projects are funded by the government's capability grant or internship grants.

This close working relationship between the business and academia encourages the researchers and students to be both interested in Comvita's business needs and committed to make discoveries that have strong business relevance. Comvita understands the long term value of this partnership and invests a significant part of their \$3M annual R&D spending on the research projects at the university.



Winner of the PwC Commercial Deal Award

Plant & Food Research



Plant & Food Research has an international reputation for developing new and innovative plant varieties with commercial success. However, early in its relationship with US partner, Northwest Plant Company LLC (NWPCO) it was recognised that traditional royalties based on plant sales would not generate sufficient revenues to justify commencing, let alone sustaining, a plant breeding programme, even if the resultant varieties were widely planted and hugely successful.

In the case of 'Wakefield', a new raspberry cultivar that had shown promising benefits over other varieties, the solution was to implement a new pricing model based on an annual grower licence fee for use of the variety.

The annual fee continues for the life of the planting and is based on the value Wakefield delivers to growers, structured so that the grower retains a minimum two thirds of the commercial benefit of growing Wakefield over and above what they would earn from growing other varieties.

Use of the plant therefore delivers significant benefits to the growers, but also returns annual earnings to Plant & Food Research. This innovative model has now seen licensing fees returned to New Zealand from the intellectual property already exceed NZ\$1 Million with significant further growth projected.

PORTFOLIO

Redefining best practice in effective and efficient investment for turning research ideas into commercial value.

ACTIVITIES

OPPORTUNITY IDENTIFICATION

Identifying new commercial opportunities in research organisations, including individual projects and platforms.

OPPORTUNITY ASSESSMENT

Increasing the speed and efficiency of new opportunity assessment.

2015 OUTCOMES

PRESEED OUTCOMES REPORT

KiwiNet contracted an independent consultant to carry out an MBIE commissioned review of outcomes from 10 years of PreSeed investment. \$25 million of PreSeed invested across 14 research organisations has attracted \$13 million of external co-investment and \$25 million of commercialisation investment from research organisations. The outcome is a portfolio that has the potential to generate \$1 billion in export earnings for New Zealand, and to-date has resulted in 133 commercial deals and \$57 million of revenue back to research organisations.

PIPELINE AND RETURN-ON-INVESTMENT

The portfolio of commercial opportunities is expanding and the economic impact of successful commercialisation projects is continuing to grow. Since July 2008 KiwiNet Investment Committee (and predecessor UniCom) has allocated over \$13.1 million of PreSeed investment into 402 projects across 15 research organisations. This has resulted in 98 commercial deals resulting in \$21.4 million of business investment, 17 start-up companies and a combined potential to generate export earnings to New Zealand of \$923 million.

START-UP COMPANY CREATION

A recent report provided to MBIE demonstrated that projects that have been invested in by the KiwiNet Investment Committee have led to the spinout of 27 new companies since 2003.

"The University of Canterbury gets great benefit in a number of ways from its active shareholding in KiwiNet. The management team of KiwiNet provides assistance and expertise 'on-tap', including administrative help, expert advice from time to time, and, upon request, supplying specific contact details of various industry experts. The Investment Committee, through a combination of employing robust processes and having a very strong collective wisdom amongst its members, offers a readily available and highly effective platform for individual project advice and a great system for deciding upon PreSeed. In addition to all this, KiwiNet membership delivers scope for individuals to have a large amount of cross-fertilisation of ideas, collaborations, and the sharing of experiences amongst its members; all of which is invaluable to the commercialisation team here at UC"

BILL LEE, COMMERCIAL DIRECTOR, RESEARCH AND INNOVATION, UNIVERSITY OF CANTERBURY



*(and its predecessor UniCom)

PORTFOLIO INPUTS SINCE JULY 2008



402

PreSeed projects



\$13.1m

PreSeed invested

PORTFOLIO OUTCOMES SINCE JULY 2008

\$21.4m
business
investment

90
jobs
created

98
commercial
deals

17
startups

\$923m
potential export
earnings

8
projects in Tech
Incubation

EMERGING INNOVATOR FUND

The Emerging Innovator Fund was launched in June 2015 to help early career research scientists with a clever new idea and commercial interest to take it to market. KiwiNet secured support from Callaghan Innovation for the first recipient, followed by the Norman F. B. Barry Foundation who provided \$250,000 to support a further 10 Emerging Innovators.



The fund was established with three key goals:

1

To develop scientists with a stronger commercialisation capability.

2

To encourage more scientists to work alongside businesses

3

To foster new innovations with significant commercial potential.

"Both KiwiNet and the Foundation share the common goal to inspire young people to pursue science careers and seek out opportunities to apply their knowledge to benefit the community and the economy."

JOHN SMITH, CHAIRMAN OF THE NORMAN F. B. BARRY FOUNDATION



\$250,000

from

NORMAN F. B. BARRY FOUNDATION

\$20,000

from

CallaghanInnovation

11 EMERGING INNOVATORS.

In-kind support from

**MinterEllison
RuddWatts**  **Baldwins**



To be eligible, scientists must be working within a publicly funded research organisation in New Zealand. In addition to \$20,000 of funding, each recipient is allocated a commercial mentor, has access to in-kind expert legal support from MinterEllisonRuddWatts and Baldwins IP.

PORTFOLIO EXAMPLES

Emerging Innovators

DR ANDREW KRALICEK

The first recipient of the KiwiNet Emerging Innovator Fund was Dr Andrew Kralicek, a researcher at Plant & Food Research who developed a biosensor which acts like a powerful electronic nose. Dr Kralicek's innovation is based on ground-breaking research, combining insect receptor proteins and novel man-made sensors to enable the detection of target compounds in extremely small concentrations.

The technology has the potential to be applied in a number of different arenas, such as: air quality monitoring, point-of-care medical diagnostics, food quality monitoring, security and agricultural pest/disease detection.

Emerging Innovator funding will allow Dr Kralicek to work alongside Auckland-based air quality monitoring equipment company Aeroqual to develop the prototype sensor. Aeroqual already makes equipment to monitor anything from roadside emissions, to industrial plants, to mine dust, but Kralicek believes his insect biosensor technology will be cheaper, easier to use, and more sensitive.



DR JÉRÔME LEVENEUR

Dr Jérôme Leveueur, a researcher at GNS Science's National Isotope Centre, has been awarded \$20,000 from the KiwiNet Emerging Innovator Fund to further develop a new nano-scale magnetic material. Dr Leveueur's magnetic material made of nanostructures is 1000 times thinner than a human hair. The material's small scale gives it enhanced properties over conventional magnetic materials.

Dr Leveueur says, "The material is highly flexible and can be manufactured in a range of different shapes, like 'magnetic play-dough', to make any size and shape, which is not the case with existing materials. The ability to mould the material to any shape can be used to improve the designs and energy efficiency of inductors and transformers, for example, as we can ensure that the magnetic field goes exactly where it's needed which is more efficient."

Jérôme will use the funding to compare the properties of his nanostructured magnetic material to existing magnetic materials. Most importantly, it will allow him to work closely with New Zealand manufacturers of transformers and inductors.

Chris Kroger, Research Manager & Deputy GM Research, GNS Science says, "Jérôme's research is potentially a game changer in the field of magnetic materials."



DR SWATI GUPTA

Dr Swati Gupta is the third recipient of the KiwiNet Emerging Innovator Fund. Joining Callaghan Innovation in 2014 as a Senior Research Scientist at Callaghan Innovation, Dr Gupta is currently working on her revolutionary "Talk to Me" tool, which enables children with special needs to express themselves to others. With a focus on Human-Computer Interaction, Gupta is deeply committed to apply her research to social, environmental and health problems. She is currently building an understanding of the commercial and business environment, which "Talk to Me" is entering.

"Talk to Me" has been a revolutionary tool that can help children to learn cooperative skills through turn-taking conversation. The technology behind the science allows a customisable interface for the caregiver to create conversations that they want to practice, and can be optimised for an individual's or group's needs. With positive preliminary results, children had more joint attention and required minimal training and teacher intervention.

Dr Gupta is delighted to be awarded the KiwiNet Emerging Innovator Fund, which has opened a whole new world of possibilities for her. She hopes her research will have a powerful impact on the lives of special needs children.



CallaghanInnovation

PORTFOLIO EXAMPLES

SILVER NANOPARTICLES

Otago Innovation

An advanced formulation to preserve caries-infected teeth and prolong life of dental fillings developed in collaboration by University of Otago's Dental School and Department of Chemistry.

Secondary caries is the most common reason for dental restoration replacement and 280-350 million dental fillings are created every year in the US, Europe and Australia alone. Increasing the longevity of fillings is a human oral health priority.

Researchers at the University of Otago have created a novel silver NanoParticle ("NP") formulation that can be applied directly to teeth by dentists, without causing staining. It kills bacteria associated with caries to protect against development of secondary caries beneath fillings.

Otago Innovation has licensed the rights to this invention to a global dental materials manufacturer for further product development.

"PreSeed supported patent protection, validation and safety testing of this new material and engagement with dental materials manufacturer on a global scale. Discussions with industry to sell this invention inspired our inventors to develop a range of new dental materials to meet industry's needs. PreSeed was essential to accelerate these activities and to conclude a deal within 30 months."



Dr Alexandra Tickle,
Commercialisation Manager, Otago Innovation Ltd



CLOUDSPEC

Viclink

A spectroscopy innovation enabling the measurement and characterisation of cloudy, light scattering solutions such as milk.

PhD student Brendan Darby and Professor Eric Le Ru at Victoria University of Wellington have developed a potential breakthrough in infrared (IR) spectroscopic technique for measurement of solutions with high turbidity (cloudiness).

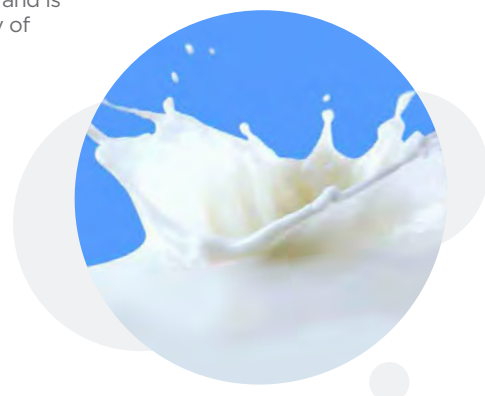
CloudSpec uses a combination of new hardware configuration and novel processing techniques that eliminate light scattering issues, thereby enabling cloudy solutions to be analysed with ease. CloudSpec will eliminate the need for the expensive instruments and processing steps currently used by analytical laboratories.

The project has been supported by KiwiNet's PreSeed backed emerging innovator fund and is a shining example of the innovation capability of research students at Victoria University of Wellington.

PreSeed has enabled further development of this technology alongside emerging innovator fund support and commercial mentoring.

"The emerging innovator fund from KiwiNet is an excellent mechanism to allow recently completed postgraduate students to explore the commercial potential of their research in a focused manner, with appropriate mentoring and guidance. It has made the difference for Brendan in choosing to take an entrepreneurial path out of his PhD."

Dr Anne Barnett, Senior Commercialisation Manager, Viclink



PORTFOLIO EXAMPLES



Ligar – Molecularly Imprinted Polymers

Wintec and WaikatoLink spinout company, Ligar, has developed the ability to mass produce materials that extract specific molecules. These could be bad stuff such as food contaminants or heavy metals in factory waste. Or good stuff such as medicinal compounds and aromas from plant materials or precious metals from waste streams.

The Molecularly Imprinted Polymers (MIP) platform was developed at Wintec by Dr Miruna Pecteu, now CSO at Ligar and can be applied in thousands of different ways. What looks like black powder is actually millions of tiny polymer beads, which are specifically designed to filter out good and bad particles from a liquid.

Between 2011 and 2013 the group that was to become Ligar received investment support from KiwiNet's PreSeed Accelerator Fund for three technology projects. They have subsequently received private investment and formed partnerships with global market leading corporations in the fields of consumer healthcare, food filtration and flavours & aromas.

Ligar is investing heavily in R&D and working with partners to develop bead and membrane-based filtration and extraction systems. These will enter the market in 2016.

'PreSeed funding was critical for taking MIPs from proof of principle stage to a product that was proven in commercial applications with partners we are now working with to take them to market. This in turn enabled Ligar to raise investment. Without PreSeed this would have been impossible.'

Nigel Slaughter CEO of Ligar and previously GM Commercial a WaikatoLink.

CO2 Supply for Greenhouses

Callaghan Innovation

Commercial greenhouses are increasingly relying on liquefied carbon dioxide to supplement plant growth and boost production. In New Zealand, a consistent CO2 supply is extremely costly and at times unreliable.

Vlatko Materic and his team at Callaghan Innovation have developed a novel CO2 capture material with an extremely high capacity and low cost, called Hot Lime. It will be used to recover clean CO2 from combusting local agricultural/forestry waste and give growers complete control over their CO2 supply with minimal costs and reduced environmental impact.

Having confirmed a strong grower interest in the technology and with technical work progressing rapidly thanks to PreSeed support, discussions are now underway with investors to spin-off the venture in early 2017.

"Having confirmed a strong grower interest in the technology and with technical work progressing rapidly thanks to PreSeed support, discussions are now underway with investors to spin-off the venture in early 2017."

Tim Balmer, Director Investments and Commercialisation, Callaghan Innovation Ltd.

CallaghanInnovation



PORTFOLIO EXAMPLES



Quiver

Quiver Vision - University of Canterbury

Quiver Vision, was developed by University of Canterbury researchers and is a smart device application that brings ordinary, 2D coloured drawings to life through interactive 3D animations.

PreSeed investment from KiwiNet enabled technology development to be completed. The IP was sold in 2013 to start-up company Puteko Limited, which was mostly comprised of University of Canterbury employees. Puteko Limited is now based in Japan to be closer to its key market, with key R&D staff remaining in Christchurch.

Quiver Vision have worked with a number of large global companies and brands, such as: Air New Zealand, Ford, GEMO, BBC, Phonak, Toys R Us, Mini, Starbucks and Ralph Lauren. They have also had over 2 million downloads of the Quiver app on iOS and Android.

To see this technology in action, check out <http://quivervision.com>

Adrian Clark, QuiverVision



“PreSeed funding helped us take our prototype and create a product and business plan. This allowed us to launch our product globally and secure seed funding to grow the business - something which would have otherwise been impossible.”

AVALIA IMMUNOTHERAPIES

Viclink

An immunotherapy technology for treating cancer and other diseases.

Researchers at Victoria University of Wellington's Ferrier Research Institute and the Malaghan Institute of Medical Research have developed a promising immunotherapy vaccine platform technology applicable to treatment of cancer, infectious disease and allergy. Immunotherapy promises a revolution in the treatment of cancer as it utilises the body's immune system to fight the disease.

Avalia Immunotherapies Limited has been incorporated to commercialise the patented technology. The vaccine technology is scalable, easily manufactured and complementary to other modes of treatment. The platform is currently at a pre-clinical stage and attracting significant international attention.

This project has received New Zealand investment from PowerHouse Ventures, the New Zealand Venture Investment Fund, Malcorp Biodiscoveries Limited, Viclink, Callaghan Innovation and KiwiNet, demonstrating impressive commercial potential.

“PreSeed funding has been instrumental in the early stages of commercialisation and has supported the pre-clinical package development as well as securing the intellectual property portfolio. These activities have provided Avalia with the best possible platform from which to license and partner across a broad range of applications.” Anne Barnett, Senior Commercialisation Manager, Viclink.



PORTFOLIO EXAMPLES

Zealafoam - Biopolymer Network

Researchers at the Biopolymer Network (BPN) have developed a low-density bioplastic foam (ZealaFoam®) that is made from sustainable, renewable resources.

The Biopolymer Network is now recognised as a world leader in biopolymer foam technologies, as ZealaFoam® is a genuinely eco-friendly alternative to EPS (polystyrene). It is compostable, able to be recycled after use in some areas and has the same impact quality and insulation properties as EPS.

The environmentally friendly bio-foam won “Best Innovation in Bioplastics” category at the International Bioplastics Awards in 2008 and also received national recognition at the 2013 New Zealand Innovators Awards.

The technology has created substantial international interest and through strategic partnering, the BPN has seen investment in equipment from two USA partners, which will significantly speed up the commercialisation process.

“Although we had produced some excellent prototypes, we were really struggling with two technical hurdles preventing us from moving the production to commercial scale.


The ability to showcase commercial production at a factory in Auckland will give us the opportunity to roll out to companies worldwide.”

Sarah Heine, CEO, Biopolymer Network Limited

PreSeed funding allowed us to build and test a process that we believe will address these issues. Without this funding, the technology may not have evolved past pilot scale.





A photograph of a busy meeting room. Numerous people, mostly men in business attire, are seated around several dark tables. They appear to be in the middle of a workshop or a collaborative meeting. Some are looking at documents, others are talking to each other. The room has wood-paneled walls and large windows. The lighting is warm and professional. In the foreground, a man in a checkered shirt is writing in a notebook. On the table in front of him are several green drinks with straws, a silver pitcher, and a white cup. The overall atmosphere is one of focused activity and professional collaboration.

**CREATING THE BEST
SYSTEM FOR TURNING
RESEARCH IDEAS INTO
COMMERCIAL VALUE**



CONTACT US

Kiwi Innovation Network Limited
Private Bag 3105
Waikato Mail Centre
Hamilton 3240
New Zealand

Email: admin@kiwinet.org.nz
Phone: +64 7 858 5049
Web: www.kiwinet.org.nz