

# Annual.

Callaghan Innovation  
Annual Report 1 July 2020 – 30 June 2021

## Injecting programme benefits into the core organisation

### Setting a new standard

New state-of-the-art premises for the Measurement Standards Laboratory

### Continuous improvement

Evolving the R&D Tax Incentive

### 10 years of optimistic mythbusting

Looking back at the presentation that led to our existence



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# So, what would **Sir Paul** say, today?

“I think the biggest mistake we can make today, in thinking about Paul’s legacy, is to just repeat his mantras without understanding that **if he were still here now, his thinking would have developed and evolved**, based on the results that have been achieved and the lessons learned in the process.”

---

Rowan Simpson

**Substack** blog post [following Mission Aotearoa: Mapping our Future Webinar, 29 March 2021, the 10th anniversary of Sir Paul’s address to StrategyNZ].<sup>1</sup>

1. <https://rowansimpson.substack.com/p/20210404>  
Rowan is founder of, and investor in, multiple successful high-growth New Zealand technology businesses, including TradeMe and Xero.





Different  
circumstances  
require different  
thinking





# Callaghan Innovation Annual Report 2021

[callaghaninnovation.govt.nz](http://callaghaninnovation.govt.nz)

## **Notice of extension for Callaghan Innovation's Statement of Intent**

In accordance with the Crown Entities Act 2014, Callaghan Innovation has received an extension to 30 June 2022 for its Statement of Intent. This extension was granted to enable Callaghan Innovation's strategy refresh to be completed and reflected in the new SOI. The strategy is a critical input for the SOI and provides a strong base for future planning and reporting.

This page: On 3 November 2020, all of our people came together in Wellington for an exciting Callaghan Innovation Day.

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Cover image: Dr Rebecca Hawke and Dr Farzana Masouleh are both research scientists at the Measurement Standards Laboratory (MSL). Here, they prepare the ‘time machine’ at Callaghan Innovation’s outreach event on the International Day of Women and Girls in Science. In this Taylor-Couette demonstration, brightly coloured dye is injected into a viscous fluid trapped between two cylinders. Turning the inner cylinder with the handle spreads the dye in layers. The flow is laminar so when the handle is turned backwards the dye returns to its original position.



A person wearing a white lab coat is holding a light blue sign. The sign has the word "CLOSED" in large, bold, red letters at the top. Below it, in smaller black letters, is "DUE TO", and at the bottom, in large, bold, red letters, is "COVID-19". The background is dark and out of focus.

**CLOSED**

**DUE TO**

**COVID-19**

# No plan survives first contact with this enemy



## Welcome from our Chair

It appears that the COVID-19 challenge and opportunity that we called 'once-in-a-lifetime' last year have now become 'entire lifetime' considerations instead. All Boards, all agencies, and indeed, all governments worldwide are having to become more comfortable making decisions on-the-fly, and then being ready to evolve those decisions if necessary once more information becomes available.

If the latter half of the last financial year was about Callaghan Innovation launching new products to minimise the impact of COVID-19 on local research and development (R&D)-performing businesses, then this 12-month period has seen the Board directing the organisation to ensure that each one of these initiatives continues to be optimised to deliver best bang-for-buck on both our customers' and the government's investments.

Callaghan Innovation continued its transformation journey over the past 12 months, confirming new operating and business models, and launching fresh organisational behaviours. It also advanced the upgrade of its digital infrastructure and made good progress on its physical infrastructure with the opening of the new state-of-the-art building for the Measurement Standards Laboratory.

A good example of such optimising is our ongoing collaboration with IR and MBIE on the RDTI project, which looks very different in 2020/21 thanks to invaluable feedback from its intended recipients.

I would like to acknowledge the hard work done this year across our whole organisation; by my colleagues on the Board, by the CEO and her Executive Leadership Team, and by each and every staff member of Callaghan Innovation and its associated businesses including MSL, GlycoSyn, KiwiStar, the Regional Business Partner (RBP) network, NZFIN and more.

Just as we now understand that COVID-19 will be with us long-term, we have also learned that we need to balance immediate concerns with longer – even intergenerational – goals. Looking ahead, I am confident that Callaghan Innovation has got the balance right, and we remain excited about the contribution we can make to realising Sir Paul Callaghan's vision of New Zealand indeed being "a place where talent wants to live".

Nāku te rourou nāu te rourou ka ora ai te iwi.  
With your basket and my basket, we will sustain everyone.

**Pete Hodgson**  
Chair

“all governments worldwide are having to become more **comfortable making decisions on-the-fly**, and then being ready to evolve those decisions if necessary once more information becomes available.”

# “Some days are just special”

A new building for Aotearoa’s world-leading **Measurement Standards Lab (MSL)**.

On Thursday 20 May 2021 the Measurement Standards Laboratory officially opened **their new laboratories** at the Gracefield Innovation Quarter (GIQ) in Lower Hutt, completing the first stage of a major redevelopment of the whole of the Gracefield campus.

The new building will be home to the MSL’s **Temperature and Electrical** teams, which will now enjoy state-of-the-art labs where they can do their precision research and standards maintenance work. These world-class new facilities show what the revamped GIQ will look like when completed.

The opening day – which was also World Metrology Day 2021 – began with a dawn blessing of the new building by local iwi Te Āti Awa, followed by an official ribbon-cutting ceremony. Guests were invited into the new building to explore the new lab spaces and to finally get to see what MSL has been so excited about over the past two years of this redevelopment.

Callaghan Innovation’s CE **Vic Crone** was one of the guest speakers for the opening. As she said later on Instagram, “Some days are just special, and this is one of them.”







### Central to discovery and innovation

World Metrology Day marks the signing of the Metre Convention in 1875, which set the framework for global collaboration in the science of measurement. Metrology is central to scientific discovery and innovation, and therefore to industrial manufacturing and international trade.

Our Measurement Standards Laboratory is New Zealand's own national metrology institute. Our world-leading MSL staff have great international standing, and are often called on to share their expertise and knowledge overseas as keynote speakers at international meetings or as participants in specific international projects.

The MSL team will now have the top-class facilities they need to do their specialist work – work that's crucial to the innovative economic future that Callaghan Innovation is enabling. New Zealand businesses can't compete effectively overseas without the credibility that the Measurement Standards Lab provides, giving international markets confidence in the quality of the goods and services that New Zealand exports. ■





# The context for what we did in 2020/21

## The strategic direction we had set for ourselves

In our Statement of Intent (SOI) for 2018-22, we said that our mission is to **activate innovation** and **accelerate commercialisation** for a better New Zealand.

### Callaghan Innovation helps develop a more productive economy

For some time, New Zealand has lagged behind other small advanced economies in productivity and growth. We've stayed in sight of these countries only through working longer and harder. Our country hasn't embraced technological innovation and Research & Development (R&D) in the way we've needed to.

There's no shortage of creative, innovative ideas here in Aotearoa – our trouble has been commercialising those ideas and getting them to market at the right price. That's where Callaghan Innovation helps, by connecting innovative businesses and entrepreneurs with the expertise, facilities and other support they need to turn their ideas into successful commercial ventures.

For this we collaborate with other public-sector partners, both in the science and technology area and also business-building and marketing. For example, while Callaghan Innovation helps realise ideas, NZ Trade and Enterprise in turn helps brilliant New Zealand products and services get to bigger and more distant markets.

### Showing, fuelling, connecting, empowering

In our SOI we set out four key 'strategic pillars' as the key things we would do to achieve our strategic purpose:

- **Show the future** – New Zealand needs to know where technology is taking the world, how we must adapt, and how innovation drives success.
- **Fuel demand** for New Zealand innovation and be a voice for innovators – here we focus on showing New Zealand businesses the value of investing in R&D.
- **Connect the ecosystem** – Local and global networks need to be able to collaborate and connect more easily so there is less friction in the R&D ecosystem.

- **Empower innovators** – Callaghan Innovation can maximise economic development opportunities for our customers and the country, by partnering with businesses and delivering the right services and funding support at the right time and for the greatest impact.

### Product offering review

In 2020/21 we undertook a review to identify how we can better support the commercialisation of science (and all R&D) i.e. so they get from labs to market faster. As a result we have reviewed how we currently work with our customers, and the products we have on offer. The core part of this is ensuring that we have a wraparound approach to customers early that ensures commercialisation expertise is involved in the planning for R&D.

Through this design process we have identified opportunities to productise existing activities to deliver a better and more consistent service to customers. We have also designed new product concepts to address unmet customer needs and increase our impact. To implement the new Business Model in FY22 we will be focused on productising existing activities to achieve efficiencies, and testing new product concepts with customers to identify areas which will deliver the most impact and therefore warrant investment in product development.

### Internal work to transform our organisation

Our SOI also recognised the need to '**build the critical foundations**' to enable us to do our work effectively into the future, by transforming our organisation in various ways.

This includes the redevelopment of the Gracefield Innovation Quarter (GIQ) at Lower Hutt, a Digital Transformation programme, our Tātai Whetū work culture programme, and other work on strengthening our health and safety and risk management practices.



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We at Callaghan Innovation are 450-plus researchers, engineers, scientists, technologists, designers, entrepreneurs, advisors and administrators who deliver self-help and on-demand services and tailored programmes, to help innovative New Zealand businesses and entrepreneurs develop and commercialise their ideas.

## What we said we'd do in 2020/21

In our Statement of Performance Expectations (SPE) for 2020/21 we said we would continue to progress those transformation programmes, which includes:

- establishing a new grants platform, **Hiwa-i-te-rangi**
- implementing a new operating model to support our strategy
- updating our vision, values and identity
- enhancing our support of the Māori Economy and Te Ao Māori, and
- embedding a risk culture that supports a more innovative agency.

Our SPE also signalled the need to adjust our strategy in response to **COVID-19**.

## We know we've been on the right track in 2020/21

Over the last 12 months we've been looking much further ahead than the five-year horizon of our 2018-22 Statement of Intent. We set a **20-year strategic direction**, asking ourselves "What will better look like in 20 years?", and asking what Callaghan Innovation would need to be and need to do in order to enable and support that future New Zealand.

That long-range strategy work confirmed that both our current five-year strategy and the specific work we did in 2020/21 have been heading in the right direction. The exercise confirmed our direction and also our current focus on **frontier ventures** – that is, high-impact businesses with global ambition and high R&D intensity, driving first-in-the-world technology and ideas innovation.

## COVID-19 has intensified the global dynamics that Callaghan Innovation has been responding to

Our work in the last year has been in the context of closed borders and struggling businesses. There has been a lot of uncertainty because of the pandemic, and we knew that it was urgent that we worked to make sure that New Zealand continued to be relevant on the global stage.

We understood that everything was going to be different during and after the recovery, and that businesses and consumers were going to be behaving very differently. But although the global turmoil has made things very different, it also confirmed that our work over 2020/21 has been on the right track. COVID-19 has intensified rather than suspended or reversed the trends we've been responding to over the last period. The pandemic confirmed the need to further equip Callaghan Innovation to support New Zealand businesses to succeed in this new world.

## A small new world

During COVID-19 this country's geographical isolation has been a strength, largely shielding us from the virus and allowing New Zealanders to get back to work sooner.

But further, the traditional barriers associated with our location at the bottom of the world have lessened considerably. The whole world has had to adjust to working and collaborating at a distance, whether across town or across continents.

The digitisation of work and everyday life in the 21st century had already made it easier for businesses and individuals to participate in and connect to global activities, markets and audiences from afar. The virus massively accelerated that trend and has made technological innovation more crucial than ever to the economic future of the world and of Aotearoa specifically.

Four years before COVID-19, James Manyika and Susan Lund, from the McKinsey Global Institute, pointed to how digitisation has allowed smaller economic players not only to connect more easily, but also to scale up much more rapidly:

**"Instead of waiting for the benefits of globalization to trickle down from large corporations, SMEs can become micromultinationals in their own right, and start-ups can be 'born global'."**

'Globalization for the little guy', January 2016

**So, in that context, here's what Callaghan Innovation achieved in 2020/21 ...**



# A year of delivering more

## Our work in 2020/21

### We've got more customers

Customer count

**3,043**

the highest it has ever been

The uptake for most of our individual services is also up on the previous year, particularly for Student Grants, Project Grants, and our co-funded Research Development Solutions (RDS).

Customer type: Seed stage

**38%**

year on year

**147%**

since FY18

Customer type: Growth stage

**26%**

year on year

**50%**

since FY18

### We've got satisfied customers

2020/21 NPS (Net Promoter Score)

**+70**

target +60

Although we're serving more customers and providing more wrap-around support, our level of service quality has stayed high.

### We're doing more for our customers

Customer connections

**19%**

of our customers are using two or more of our services

Compared with 14% the previous year.

COVID-19 recovery connections

**807**

customers used our services

These were often important door-openers for us, allowing us to connect with customers.

### We've got some significant growth areas

Cleantech

**32%**

Digital

**12%**

Health

**18%**

AgriTech

**7%**



# The COVID-19 impact

We achieved 49 out of 57 performance measures which includes being on-track to achieve a number of multi-year programmes of work.



We finished the year with an operating deficit of \$5.536 million compared with an operating surplus last year of \$8.668 million.











# More in these four

Our focus areas in detail

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**1. RDTI plus...**

Delivering increased investment  
R&D incentives – *page 14*

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**2. COVID-19 Response**

Completing what we started  
last year – *page 18*

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**3. Progressing our Priorities**

Balancing BAU with programmes  
and projects – *page 22*

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**4. Embedding the Benefits**

Ensuring better outcomes for our  
customers – *page 34*



# 1. Delivering investment incentives for R&D

by completing the move to the R&D Tax Incentive

The R&D Tax Incentive supports businesses doing ground-breaking R&D in areas such as AI, blockchain, genetics, mechanical and structural engineering, and agri-tech.

Callaghan Innovation administers a number of incentive programmes aimed at encouraging businesses and entrepreneurs to invest in research and development. Lowering barriers and reducing some of the risks associated with R&D is important for enabling Aotearoa to develop high-value, globally relevant companies.

The **R&D Tax Incentive (RDTI)** is the centrepiece of that financial incentive and support system, providing a 15 percent tax credit on a business's eligible R&D spending. It's aimed at encouraging established businesses to do more R&D, which will in turn expand New Zealand's knowledge economy.

The R&D Tax Incentive replaced the current Growth Grants scheme (which expired in March 2021): the RDTI applies to a broader range of businesses than the Growth Grants, and it's also not capped.

In 2020/21 Callaghan Innovation worked with IR and MBIE to increase the uptake of the scheme. We also worked with these partners to ensure that the RDTI is fit for purpose and achieves what it's intended to.

## Delivery of the R&D Tax Incentive

Getting the RDTI right is critical – we are working towards a future state where the RDTI is the R&D support mechanism that suffices for the vast majority of established businesses with staff. It will provide ongoing support for businesses that are innovating successfully and have incorporated R&D into their normal operations.

Over time, more and more New Zealand businesses will see R&D as something they need to do and, because of the R&D Tax Incentive, as something they can afford to do.

During 2020/21 we focused on operational policy work and operational changes needed to improve the RDTI. To make sure it is fit for purpose, we reviewed all the applications we had declined, to see how accurately and consistently we had been assessing them against the legislation and the guidelines.

As a result of that review, the eligibility criteria were improved to **broaden the range of R&D** that could be approved under the scheme. We then also made various operational improvements, including a **new operating model**, to allow our RDTI Core Team to implement the updated scheme.

The review also told us more about the **customer experience** when businesses apply for and receive the RDTI, and how to improve that experience. As a result, we have increased our support for businesses right from when we first interact with them, through having customer engagement specialists and our Primary Relationship Managers to help them.

## Ensuring that customers transition smoothly from Growth Grants to the R&D Tax Incentive

A major focus for our RDTI team in 2020/21 was encouraging our customers to move from the Growth Grants to the RDTI, and also ensuring they could do so **as smoothly as possible**, without disrupting their R&D work.

We contacted Growth Grant customers individually through a calling campaign, and we ran a number of workshops, presentations and webinars.

We also worked with MBIE to develop the **transition support payments** scheme to encourage and support customers to shift, and we signed an information-sharing agreement with IR to facilitate the transition. ►



# Green Protein

With consumer habits changing, and environmental pressures increasing, start-up venture **Leaft Foods** is using innovation to capitalise on New Zealand's green pastures in new ways. This Canterbury-based company extracts protein out of green leaf material to produce nutritious food products, but with a lower environmental impact than many traditional protein sources.



The science behind Leaft Foods' concept isn't new – it dates back to World War II when researchers looking for alternative protein sources discovered that a highly nutritious protein, rubisco, could be extracted from green leaf material for human consumption.

Rubisco is the most plentiful protein on the planet but, as Leaft's CEO Ross Milne explains, the science for extracting it has failed to gain commercial traction until now. "The challenge we're setting out to overcome with Leaft Foods is to extract and purify the protein from the leaf material in a way that is sustainable and commercially viable," Milne says.

Tapping into support from Callaghan Innovation has helped Leaft Foods accelerate its R&D programme. For example one of our **Project Grants** supported this R&D work, and Leaft also worked with protein scientists from our **Research and Development Solutions (RDS)** team on how best to extract the protein without losing any of its quality of functionality. ■





## The wider R&D financial support and incentive system

The R&D Tax Incentive is central to the current financial support system, but it's only one part of it.

We provide innovators and entrepreneurs with a comprehensive set of financial support mechanisms, including various R&D grants, that can take them all the way from initial research through to commercialising their idea.

Callaghan Innovation has several ways of financially supporting businesses that are just starting out along the R&D road:

- Our **Getting Started Grants** provide up to \$5,000 for a broad range of early-stage innovation activities, including basic prototyping and technical feasibility studies. The grants are delivered through the Regional Business Partner Network.

*In 2020/21 we approved 123 Getting Started Grants, totalling \$556,785*

- **Project Grants** provide up to 40 percent of co-funding for specific R&D projects, giving businesses starting out on R&D a significant boost.

*In 2020/21 we approved 198 Project Grants, totalling \$38.31 million.*

- Our **Student Grants** help businesses that have active R&D programmes to bring in skilled students to do specific research or solve specific R&D problems. They include Experience Grants for student summer interns, Fellowship Grants for PhD or Masters students, and Career Grants to cover the first six months' salary for recent graduates.

*In 2020/21 we approved 926 Student Grants, totalling \$21.41 million.*

Our partners at Inland Revenue also administer the **R&D Loss Tax Credit**, which businesses can use for the same expenditure as the R&D Tax Incentive. ■

**Demand for Callaghan Innovation's Project Grants and Student Grants stayed strong during 2020/21 – this points to exciting opportunities for New Zealand's economic recovery and future growth.**

In 2020/21...

**86%**

of businesses receiving a Growth Grant maintained or increased eligible R&D expenditure over the grant period

exceeding our target of 70%

**92%**

of Project and Student grant applicants received a decision within 30 working days of receipt of the completed application

In the last four years the Student Grants scheme has helped more than 3,500 students and recent graduates find placements in industry.

# Wireless power

Start-up Emrod is developing technology to transmit high-power electricity safely over long distances without the use of power lines.

The new technology has a huge range of potential applications – from connecting remote communities to the electricity grid, to enabling greater uptake of sustainable energy from wind and solar farms, to powering electric shipping and aviation.

From its earliest stages Emrod has worked with Callaghan Innovation to bring its innovation to life – this has included accessing our R&D expertise and connections, as well as some grant funding.

After successfully building a proof of concept to demonstrate its proprietary technology – which harnesses beam shaping, metamaterials and rectenna capabilities – Emrod recently switched on a larger prototype system, built in collaboration with major electricity distributor Powerco.



Visionary inventor Nikola Tesla became engaged with the idea of wireless electricity transmission around the turn of the 20th century. More than 100 years later, Emrod is now on the cusp of demonstrating this exciting technology's use in the field. ■



# 2.

## We completed our COVID-19 response

The COVID-19 pandemic threatened to significantly reduce or slow down R&D activities across many New Zealand businesses. To address this risk Callaghan Innovation delivered a range of initiatives aimed at allowing R&D to continue despite the disruption.

In 2020/21 we wrapped up our COVID-19 recovery strategy and response successfully, completing it as a project in the third quarter.

Where appropriate, we incorporated those activities, and the lessons we learned from delivering them, into the BAU support that we provide for our customers.

### The R&D Loan Scheme: Low-interest loans to help businesses continue their R&D during COVID-19

This temporary support scheme helped businesses that were doing R&D continue with it during COVID-19 rather than having to divert funds tagged for R&D to other business costs.

The scheme allowed qualifying businesses to borrow up to **\$400,000** at very low interest rates.

After allocating the full \$149 million fund to more than **450 businesses**, we closed off the scheme to applications on 31 March 2021.

### Other initiatives to keep R&D going through the pandemic

As well as the R&D Loan Scheme we provided other initiatives to support businesses to continue their R&D work despite the pandemic.

- We supported MBIE and businesses to allocate \$26.1 million of the **COVID-19 Innovation Acceleration fund** to 55 innovation projects.
- We received **503 requests for Booster Vouchers** and issued 414, to enable businesses across eight sectors to access advice from **189 provider businesses** and **\$2 million** in economic activity. The uptake from Māori businesses was 12% (exceeding our target of 5%).
- The **Start-up System Enablers** initiative focused on the incubators and investors who support early-stage ventures in New Zealand to develop and grow. Our support bridged the shortfall in sponsorship that these organisations faced during the pandemic, helping them carry on with their great work.
- **47 businesses** had accessed our **Research and Technical Services** (now 'Research Development Solutions' – RDS) co-funded services to enable over \$1 million in R&D projects. ►

“The COVID-19 Support Service allowed us to pursue a new product R&D project. We would otherwise have deferred this initiative in favour of focusing resources on our core technology. RDS’ capability and equipment accelerated the development of a complementary branch of our technology that will add value and increase the attractiveness of our offering to customers.”

Callaghan Innovation customer on RTS Co-funded Services.

# How to clean up the competition

Palmerston North-based business **Saflex Pumps** has developed technology to make deep cleaning for COVID-19 more efficient and cost-effective than global competitors.

**Mark and Sue Bell-Booth** are the entrepreneurs behind the company, which designs and builds chemical dispensing equipment. With a motto of *'Touch a button, not a chemical'*, they have developed technology that enables liquid chemicals to be diluted, mixed and dispensed to high levels of accuracy, eliminating human error.

Saflex Pumps' Frogga machine does this with sanitising chemicals, dispersing them in a very fine fog, which helps carry them through the air and onto surfaces.

To meet the fast-moving threat of COVID-19 and develop its new machine, the business leveraged its own IP, existing technology, and an **R&D Loan**. At Callaghan Innovation we also tapped into our networks to help Saflex Pumps connect with commercial and research partners overseas. ■





## COVID-19: An accelerator and a 'door opener', rather than a hurdle

In the midst of COVID-19 it became clear that it would be a mistake to see it as just something to get through, as a barrier we needed to pass.

### Trivialising some once-significant barriers

The pandemic intensified the digitisation of 21st century life and work, and it normalised remote working and collaboration. The emergence of the video meeting as a now routine and near-universal experience across the developed world has essentially trivialised some geographical barriers that used to seem so significant for New Zealand.

The virus intensified the pace of technological innovation and made it even clearer that if Aotearoa does not embrace R&D as the centre of its economy, it will fall further behind our international competitors.

### New opportunities to build customer relationships

For our still quite young organisation, the pandemic has also acted as something of a door-opener – it has given us a chance to connect with our customers and to demonstrate to them the importance of innovation in the modern world and show what Callaghan Innovation can do to help them innovate and commercialise their ideas. ■

“Financial support during these tough times is critical to help us keep momentum for our R&D projects.”

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A Callaghan Innovation customer on the impact of COVID-19.

“COVID provided a door opener for us to build relationships with customers and give them the confidence to do more and bigger things.”

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Callaghan Innovation staff member.



# The good (mānuka) oil

**Manuka Bioscience** is partnering with East Cape mānuka oil producers to develop treatments for a range of skin conditions and infections.

For several years the company has been selling its **ManukaRx** brand of skincare products for dry skin, acne, fine lines, cuts and more. But it has also been working with leading research organisations, including the Medical Research Institute, to develop treatments for more serious skin conditions.

Supported by Callaghan Innovation, Manuka Bioscience has been testing the efficacy of mānuka oil in treating conditions such as impetigo – a skin disease that hits Māori and Pacific Island communities especially hard, and that can develop into much more serious and life-threatening illnesses.

“East Cape mānuka oil has high levels of a chemical called beta-triketones with powerful antibacterial, antiviral, anti-fungal, anti-inflammatory and anti-aging properties,” explains **Dr Suki Harding**, a Director of Manuka Bioscience and Head of its R&D team.

Two **Project grants** from Callaghan Innovation enabled Manuka Bioscience to develop, test and trial the new products for effectiveness in treating impetigo and eczema. When COVID-19 made itself felt in Aotearoa last year, the **R&D Loan Scheme** also allowed Manuka Bioscience to continue its R&D programme through the pandemic. ■





# 3.

## We've progressed our priority projects and transformation programmes

while continuing to provide core business support for our customers

We've made good progress implementing the priority projects set for us by our Minister for 2020/21, and also on our various transformation programmes.

As well as implementing the R&D Tax Incentive alongside IR and MBIE, a second priority set for us by the Minister was to complete or nearly complete the emergency works for our **Gracefield Innovation Quarter redevelopment**, and to make good progress on the remaining Tactical Estates Continuity works to prepare for the future focused GIQ redevelopment.

The third priority set by our Minister was to implement our new **Research Development Solutions (RDS) strategy**, including developing a new operating and funding model that provides better value for money within the current funding.

As well as progressing those priorities and transforming our organisation at pace, Callaghan Innovation has continued to provide **our core business support services** for our customers throughout 2020/21. Throughout this post-lockdown year, demand from New Zealand businesses and entrepreneurs for innovation support has been high – customer numbers exceeded our target for the year – and we've worked to manage that high demand successfully.

### In 2020/21 we...

Worked with

**3,043**

organisations

668 of which were also NZTE focus customers

Received an overall net promoter score of

**+70**

exceeding our target for the year of +60

Attracted

**1,008**

customers to our events and innovation programmes

exceeding our target for the year of 1,000

## Significant ‘clusters’ we focused on

These are some other significant sectors – or ‘clusters’ – where Callaghan Innovation is focusing its efforts:

### The Māori economy

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In 2020/21 we worked to increase and improve the support that Callaghan Innovation provides the Māori economy. We worked with 16 iwi and trusts this year, which included supporting **Wakatū Incorporation** to develop Phase 1 of their R&D Commercialisation Strategy and co-funding **Te Whānau ā Apanui’s** digital Twin Environmental Pest Management Collaboration initiative.

[See page 32](#)

### Bioresource Processing Alliance (BPA)

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During the 2020/21 financial year, 37 companies were involved in approved research projects, 47 products and processes were developed for industry partners. This year also saw the launch of a new product in Avocado Powder.

[See page 33](#)

### Industry 4.0 Demonstration Network

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Established in 2020/21, this reached **more than 1,000 customers** in its first year. We successfully shifted a number of the network’s programmes, such as Smart Factory visits, to digital and virtual delivery in response to COVID-19.

### Food Innovation Network (NZFIN)

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This is a government-funded food innovation-to-commercialisation service, bridging the gap between a new product idea and a multimillion-dollar factory. NZFIN enables businesses to innovate, scale up and commercialise new products – ultimately to international scale. Start-ups can bring a vision to life, while large established companies can do R&D, trial new products, or test specialised manufacturing machinery before buying it.

#### NZFIN’s ‘food hubs’

Five sophisticated F&B production facilities across the country provide a unique level of expertise and access to a diverse range of equipment for the F&B industry.

Each of these ‘**food hubs**’ has a specialist focus, and a business might work exclusively with one, or might start with intensive R&D in one hub then move to another for proof of concept and scale-up.

For example Auckland’s **The FoodBowl** has six independent F&B manufacturing suites offering over 300 pieces of equipment, while the spray-drying experts at **FoodWaikato** in Hamilton support innovation in nutritional powders for dairy products.

NZFIN has worked with **211 clients** delivering **620** completed projects (in the 12-months ending 30 June 2021). Demand is increasing steadily with several of the hubs working at close to full capacity.

[See page 33](#)



# Redeveloping the Gracefield Innovation Quarter (GIQ)

The GIQ in Lower Hutt is an **innovation hub** with specialist premises and facilities, including workshops, pilot plants, labs and equipment. As well as Callaghan Innovation's own teams and facilities, many businesses work out of the GIQ – from small start-ups, to R&D teams supporting major international companies. For example, Callaghan Innovation's **AddLab team** is based at the GIQ. Their 3D-printing expertise and facilities allow businesses to test and progress design ideas much more quickly and in a more affordable way.

## First it's 'back up to zero' for GIQ ...

The redevelopment programme is currently focusing on ensuring a healthy, safe and fit-for-purpose work environment at GIQ. The redevelopment's first four-year stage – which we call our 'Tactical Estates Continuity Programme' (TECP) – is addressing years of deferred maintenance, where top scientists have had to work in leaking buildings with poor ventilation and heating, substandard storage of hazardous chemicals, and also extensive asbestos.

The \$125 million GIQ investment helps build towards creating a space “where talent wants to live”.

The GIQ redevelopment is a complex programme of work, because it's being done on a fully operational site that supports work for entrepreneurs and innovators.

The GIQ work we progressed in 2020/21 included:

- Delivered a new and unique building for our world-leading Measurement Standards Lab.
- Upgraded working spaces (Coordinate Measurement Machine room, Microfabrication Cleanroom and GlycoSyn roof repair).
- Initiated the refurbishment and replacement of approximately 245 Heating, Ventilation and Air-conditioning (HVAC) units across site.
- Demolishing several structures to make way for future works.
- Commenced the design and planning stage for improved upgraded hazardous goods facility, flexible offices, flexible labs and site-wide infrastructure.

## ... and then we go further

We are also engaging with the innovation ecosystem and businesses about what else is needed at the GIQ to attract and support a community of innovators that can contribute to reshaping, not just our economy, but also our society and environment.

The GIQ is the engine room for innovation in Aotearoa, where hands-on work to accelerate development and commercialisation happens. Investment in the GIQ is crucial to supporting a thriving, modern, innovative economy.

## Organisations that work out of GIQ

**Ferrier Research Institute (VUW)** – a team of organic chemists, biochemists, and analysts carrying out fundamental, applied and commercial research, together with student supervision.



**Ferrier Research Institute**  
Te Kāuru

**Robinson Research Institute (VUW)** – a multidisciplinary institute that melds innovative engineering and applied physics to build advanced technologies for businesses worldwide.



**Robinson Research Institute**  
Kitenga me te tono rangahau

**Trinity Bioactives** – a research lab doing independent scientific testing to support the development and marketing of health products derived from natural sources.





### The first stage: Progress on the Tactical Estates Continuity Programme

At the end of 2020/21 we were halfway through our four-year TECP programme, which is aimed at stabilising the GIQ site and making sure we're fulfilling our legal duty of care by providing healthy, safe and fit-for-purpose workspaces for our staff, tenants and customers.

However, more than half of the projects in the programme were still in the design stage, and only around a fifth (22%) had been completed and delivered. We had expected to have more of the programme completed in 2020/21, but some unforeseen factors delayed our progress, including **COVID-19 and its impacts on supply chains**. We also deliberately delayed or slowed some components of the programme so they could be delivered more efficiently as a package of work.

While there have been unexpected delays, the programme has advanced **30 urgent packages of work**, often smaller and discrete pieces of work to ensure business continuity, enable other projects within the programme to be delivered and to address a number of specific health and safety concerns. Of the 30 urgent work packages, 25 were completed by 30 June 2021 and the remainder are being progressed subject to supply of materials.

Whilst the programme has not achieved some of the 2020/21 SPE performance milestones, overall we expect that our spending on the programme will increase dramatically in calendar year 2022. ■

**Avalia Immunotherapies** – developing immune system modulators that activate and direct the most powerful immune cells in the body for targeted responses to disease.



**BDG Synthesis** – this New Zealand company is a team of synthetic organic chemists, specialising in the custom synthesis of stable isotope labelled materials, metabolites and reference standards – they specialise in new and difficult-to-make compounds of very high purity.



**BDG SYNTHESIS**



# Research Development Solutions (RDS)

Our Research Development Solutions group provides a core part of the services and support we provide to our customers. The RDS Group helps businesses **innovate and commercialise** by supporting design, product development, and prototyping. It brings together the Commercial and Research and Technical Services groups together.

The RDS Group employs more than 200 of Aotearoa's **leading scientists, engineers and technicians**, and provides both expertise and associated infrastructure. It supports a range of New Zealand businesses, from start-ups to some of New Zealand's largest companies, helping them solve tricky technical challenges.

Our scientists and engineers have provided R&D services to over 280 New Zealand businesses as well as numerous international clients, and contributed \$15.5 million in commercial revenue to the organisation.

## Our new Research Development Solutions Strategy

In 2020/21 we continued implementing our Research Development Solutions Strategy:

- we reviewed our pricing model and piloted some improvements
- we investigated ways to better support industry R&D to prototype, pilot and scale up innovative technological ideas
- we progressed the development of a biotech concept as a 'lighthouse' of how the future of RDS and the GIQ site could work as an integrated community
- we developed a high-level roadmap that we will now use to identify key areas to target with technical and scientific expertise.

Case Study  
**AddLab**

## How Callaghan Innovation helps businesses reap the benefits of 3D-printing technology

Our **AddLab** team helps New Zealand businesses understand the role that additive manufacturing can play in design and production, and also helps connect them to the additive manufacturing ecosystem.

'**Additive manufacturing**' uses 3D printing technology to create parts and assemblies without tooling. This allows designers to explore more options, more cost-effectively – they can adapt designs quickly, prove that the design works in actual use, and get their products to market faster.

Callaghan Innovation's AddLab team put their own 3D printers to work recently when **Transpower** approached them with a small clip used to secure data cables to electronics boards in their grid control system. Transpower said: "This is our last one – can you design and print us some more?"

Our AddLab team were able to quickly design, test, and refine a replacement part, in three different styles, which Transpower were then able to quickly test in the field. Transpower ordered 2,000.

From start to finish, the design and production of the new connector clip was much faster and cheaper than could be achieved by the traditional injection-moulding route. Now, with the digital files in hand, Transpower can approach any of New Zealand's 3D printing bureaus or the AddLab to produce more clips if they run out again. ■



# Innovative health and healing technology – from Ruatorea to Frankfurt

Gisborne-based pharmaceutical business **Rua Bioscience** aims to bring the health and healing benefits of medicinal cannabis and other innovative medicines to customers throughout the world.

The company has already signed a deal to supply pharmaceutical-grade cannabis flower to **Nimbus Health**, one of the leading wholesale distributors of medicinal cannabis products in Germany. But Rua Bioscience also has its sights set on its home ground, on the wellbeing of communities in Ruatorea, the Waiapu Valley and wider Tairāwhiti (the East Coast).

The company says: “We created Rua to provide affordable effective medicines for people around the world and to provide employment opportunities for people here in Tairāwhiti.” Rua Bioscience has now invested more than \$6 million developing a commercial-scale cultivation and breeding centre in Ruatorea, and an extraction and manufacturing facility with an analytical lab in Gisborne.

Rua Bioscience points out that its network of growers draw on generations of intimate knowledge of plant and land. At Callaghan Innovation we’re proud to have been helping the company to commercialise what it calls its “indigenous-inspired innovation”.

Rua’s CE **Rob Mitchell** says: “Callaghan Innovation’s **Research and Development Solutions** team, including extraction engineers based at Gracefield, provided critical advice and connections with CO<sub>2</sub> extraction experts early in the system planning process.” Rob says our support enabled them to move ahead and choose a system that suited the requirements for GMP (Good Manufacturing Practices) certification and the firm’s initial scale of production. ■



## Empowering New Zealand innovators

**Scale-Up NZ** is a free online platform that makes it faster and easier for ambitious businesses to find and connect with the people, capital and other help they need to innovate and grow, both here and offshore.

In 2020/21 the platform profiled **2,191 organisations** and made over **450 introduction requests** since its launch in April 2019. There were over 103,000 sessions, approximately 300,000 page views, and 900 sign-ups

to the year ending June 2021. The platform successfully mapped \$464m of investment deals in NZ for the period, with ~30% going to the Fintech and eCommerce sector. The launch of a new insights page in the June quarter successfully increased user traffic to around 12,000 sessions per month, for an increase of 64% year on year. ►



## Strengthening the R&D ecosystem

The **Technology Incubator** programme helps accelerate and de-risk the commercialisation of ‘**deep-tech**’ ideas through to commercial ventures. It aims to increase the number of start-ups based on ‘deep’ technologies – that is, technologies based on scientific discovery or significant engineering innovation, such as AI, robotics, blockchain, advanced materials, and quantum computing.

The programme allows deep-tech start-ups to access up to **\$1 million in funding**, consisting of a \$750,000 repayable grant from Callaghan Innovation and \$250,000 in private investment. Callaghan Innovation’s role is to review and approve Repayable Grant funding for start-ups that have been identified by our Tech Incubator Partners.

In April 2000 we launched a refreshed and more ambitious version of this programme, with four Technology Incubation Partners focusing on sectors that are strategically important to New Zealand.

The programme ended 2020/21 with a well-balanced portfolio from private and public sources, covering artificial intelligence to space technology to life-saving pharmaceuticals, with **over \$31 million** in co-investment from \$7.5 million in repayable grants. ►

Case Study

**Scientien Bio**

# Insects & chips

New Zealand company **Scientien Bio** has been doing nothing less than putting insects’ sense of smell onto computer chips.

The company started as a commercial spin-off from Plant & Food Research, where Scientien Founder **Dr Andrew Králíček** and his team worked for nearly 20 years on decoding the chemical language involved in insects’ powerful sense of smell. Andrew and Scientien then went on to develop a world-leading new technology – putting synthesised insect smell receptors onto nano chips to build a handheld ‘nose/tongue’ device capable of accurately smelling and testing chemical compounds.

As Andrew puts it, “We’re essentially putting an antenna on a chip.”

To develop and commercialise the new technology, Scientien Bio has been partnering with incubator firm **Sprout Agritech** through Callaghan Innovation’s **Tech Incubator** programme. Tech Incubator gives Scientien access to entrepreneurial expertise, international markets and experts, and crucial capital networks.

Scientien is focusing first on the flavour industry, where its new technology can provide a simple matching tool to ensure that raw materials have the exact smell and taste required. The technology creates a ‘fingerprint’ for a specific flavour profile identified and refined by a human tasting panel, and its handheld smeller-taster then ensures that profile has been recreated precisely.

The potential uses are wide-ranging, including detecting environmental and biosecurity hazards, and working out when cattle are in heat. But whatever the eventual applications, a vital benefit of the technology is that it can give a result in just minutes, rather than the hours or days required for testing through a lab. ■



# Measurement Standards Laboratory

MSL is responsible for disseminating national measurement standards and providing related services in accordance with the Measurement Standards Act 1992.

In the FY21, MSL provided New Zealand with uniform units of measurement and maintained standards of measurement of physical quantities in the following areas:

- Electricity
- Time and frequency
- Photometry and radiometry
- Temperature and humidity
- Mass and pressure
- Length

MSL maintained 177 internationally recognised calibration and measurement capabilities. It also maintained signatory status of the Mutual Recognition Arrangement between many of the world's national metrology institutes.

New Zealand participated in the following international measurement comparisons:

**APMP.L-K4.2021:** Calibration of Diameter Standards

**APMP.L-K8.2021:** Surface Roughness

**APMP.T-S17:** Air temperature comparison

**CCTF-K001.UTC:** Calculation of UTC (Coordinated Universal Time)

**APMP.L-K5.2021:** Calibration of a step gauge

**CCT-K7:** Triple point of water

**APMP.T-K6.2013:** Comparison of humidity standards: dew point temperature

**APMP.T-S13:** Low-frost-point temperature.

**APMP.L-K1.2018:** Calibration of gauge blocks

**CCPR-K2.b.2016:** Spectral responsivity 300 nm to 1000 nm

**APMP.PR-K2.b:** Detector Spectral Responsivity 300 nm to 1000 nm

**APMP.M.D-K4:** Comparison of the calibration of density hydrometer

**CCT-K6.1:** Comparison of humidity standards: dew and frost point temperatures

**APMP.T-K8:** Comparison of high dew point temperatures



MSL uses these international comparisons to prove New Zealand's measurements are equivalent to those of other countries.

In FY21 an MSL scientist was invited, as an expert, to deliver two international presentations on global efforts to digitise metrology. The same scientist was invited to be part of the organising committee for the International Bureau of Weights and Measures (BIPM) workshop on digital metrology.

MSL also successfully completed five yearly IANZ technical reassessments for our Mass and Time Standards. These assessments involved being audited by international experts from fellow National Metrology Institutes to confirm MSL's accreditation status and provide confidence in the service and capabilities delivered by MSL.



# Clearing the path for Kiwi health-tech

The **HealthTech Activator (HTA)** is a coordinated support mechanism for early-stage founders and companies in New Zealand’s health sector. It makes it easier for health-tech companies to find and access the support they need to turn their health innovations into successful businesses.

The HTA aligns with the 2017-2027 Health Research Strategy and the key measures identified in the strategy for supporting the commercialisation of health innovations.

Since the HealthTech Activator was established in September 2020, more than **500 subscribers** in the health-tech sector or adjacent categories have signed up to it, and **over 90 organisations** have been triaged and assessed through the HTA.

Support through the HTA includes capability-building workshops and other access to business insights. For example, HTA companies have accessed six insight sessions with the **Gerson Lehrman Group (GLG)**, a global network that connects clients with expertise – all of them reported that the insights they received were invaluable. ■

Case Study  
**Alimetry**

## Next-gen tech for gastric disorders

One company that completed the Health Tech Activator market validation programme is **Alimetry**, winner of the ‘Best Scale-Up Company’ award at Health Tech Week in 2021.

Alimetry has produced a pioneering device for diagnosing gastric problems. This wearable wireless device has an array of electrodes that picks up on signals from the stomach, providing an alternative to invasive diagnostic procedures like endoscopies.

The data the ‘**Gastric Alimetry**’ device gathers can help doctors treat common symptoms like abdominal pain and nausea. ■



# Doctors + AI

Healthtech start-up **HeartLab** is using artificial intelligence (AI) to help in the fight against the world's No 1 preventable cause of death – heart disease. It's developing AI tools to help doctors with the time-consuming and manual process of reviewing echocardiograms – one of the most common scans used to identify heart problems.

A type of ultrasound, echocardiograms are the typical scan for heart-related issues, with around 100,000 of them done in New Zealand each year (in the US, it's around 38 million). But while the scanning technology itself has become increasingly sophisticated, the tools to review a scan haven't. The process still involves doctors taking manual measurements from images – needing around 20 minutes per scan – and is subject to variation.

HeartLab's CEO is **Will Hewitt**, who co-founded the company when he was only 18. Will explains: "Doctors spend years training, and they're very expensive to train, so having them do a repetitive, menial task like taking manual measurements off scans is not a good use of their time."

HeartLab's solution, he says, is an AI platform that automates the process of reviewing the scans, and consistently delivers the measurements in a fraction of the time. Will points to an insightful quote: "AI won't replace doctors, but doctors who use AI will replace doctors who don't."

HeartLab has tapped into New Zealand's healthtech ecosystem, including accessing Callaghan Innovation support, to help it with everything from company incubation, to funding, to market validation. Support from Callaghan Innovation included **Student Grants** and access to the **R&D Loans**. In fact, HeartLab's longest-serving employee started out on a student internship funded by us. ■



## HealthTech Week 2021

HTA and the HealthTech Sector team from Callaghan Innovation provided significant support for HealthTech Week 2021 and produced a sector update report <https://hta.callaghaninnovation.govt.nz/news/activating-nz-healthtech-clearing-the-path-to-commercialisation>

A short video highlighting the work of the HTA and the impact it is having in the sector was used during HealthTech week. You can watch it here at: [https://www.youtube.com/watch?v=NQEc4XY0q\\_o&t=7s](https://www.youtube.com/watch?v=NQEc4XY0q_o&t=7s)

Head of Health Technology, Andrew Clews was interviewed on RNZ's 'Nine to Noon' with Kathryn Ryan on 9 July 2021 – Andrew talked about the challenges and opportunities in HealthTech and about Callaghan Innovation's role in supporting this 'sunrise' sector. Listen at [https://www.rnz.co.nz/audio/player?audio\\_id=2018803272](https://www.rnz.co.nz/audio/player?audio_id=2018803272)



# Hi-Tech Māori Kamupene o te Tau 2021

Taupō-based company **MB Century** – which provides geothermal drilling, engineering and engineering maintenance services to the power-generation sector – was named ‘**Callaghan Innovation Hi-Tech Māori Kamupene o te Tau**’ (Māori Company of the Year) at the 2021 NZ Hi-Tech Awards at the end of May.

MB Century has carved a reputation as a centre of excellence in harnessing geothermal energy. It’s owned by the Tuaropaki Trust – which has interests in everything from geothermal power generation, to food and nutraceuticals, to communications.

MB Century’s CE, Greg Thompson, said: “This win really points to an exciting future for the Tuaropaki Trust and the upcoming generations who will be working at MB Century as we constantly strive to stay ahead of the curve in the energy space.”

MB Century’s innovative work in the energy sector includes developing its **Multi-Finger High Temperature Casing Calliper (HTCC)** – a tool that assesses the condition and safety of geothermal wells with much more accuracy than the existing solutions.

The technology for the new calliper tool was developed with support from several partners, including Callaghan Innovation, which provided a **Project Grant** in 2015, as well as the Product Development Management Association and the Institute of Professional Engineers NZ.

Four other innovative Māori-led businesses were nominated for 2021 Māori Kamupene o te Tau: **AgriSea**, **Jobloads**, **NZ Trade Group**, and **Weirdly**.

Aroha Armstrong, Group Manager of Māori Economy at Callaghan Innovation, noted the incredible diversity among this year’s finalists – whose offerings cover everything from improving connectivity for tradies, to streamlining recruitment, to developing biostimulants for the primary sector, to providing geothermal and energy solutions.

“It’s exciting to see so many Māori innovators developing tech solutions that have the wellbeing of people and the planet at the core,” Aroha noted, “and that the world is now looking to Aotearoa for these types of innovations.” ■



# Innovation is alive and well in New Zealand's food & beverage industry

In F&B exports, the rapid shift from commodities to finished value-added products continues, and so too does the demand for a supportive space to carry out R&D, then move into manufacturing.

The New Zealand Food Innovation Network (NZFIN) is a crucial part of this, enabling businesses, large and small, to innovate, improve concepts, prove market viability and scale up in achievable and economical ways. No one business can have the range of specialist equipment nor the depth and breadth of expertise and experience in one place. ■

## Case Study NZFIN

### 'The perfect place to scale-up new and innovative concepts'

Australian company **Nu-Mega Ingredients** develops science-based bioactive ingredients for health and nutrition products for infants, children and adults. They chose to work with the NZFIN team because of its expertise, flexibility and enthusiasm.

After years of using FoodWaikato's spray drying capabilities, Nu-Mega had another product innovation they wanted to take from R&D stage to small batch commercialisation. Another NZFIN food hub, Auckland's **The FoodBowl**, was the obvious choice.

Since July 2019, Nu-Mega has been working with FoodBowl on scaling up the manufacturing of a **novel emulsion technology** developed by Nu-Mega containing DHA (docosahexaenoic acid), an Omega-3 fat, from an algal source. Nu-Mega says: "The patented technology has been refined, trialled and now we are producing this product at The FoodBowl in semi-commercial quantities."

The **flexibility and working style** at the FoodBowl allow companies like Nu-Mega to send in their own highly-skilled R&D and technical staff to work on product development:

"For the two major trials we ran, we sent in teams from Australia and our staff based at the Melody Dairies site at FoodWaikato. The size and type of equipment available to us, along with the immense flexibility to adapt machinery and try different things makes it the perfect place to scale-up new and innovative concepts." ■

## Case Study Valic NZ

### New products and new value from New Zealand's avocados

At its King Avocado orchard about 15 minutes north of Kaitiaki in the winterless far North, **Valic NZ** processes up to half a million undersize and second-grade avocados each year, producing oil-based products. The company was keen to see what it could do with what's left over, including the pomace (the pulp) and even the skins and stones.

Valic NZ worked with researchers from Callaghan Innovation on options for using the pomace, as a new project under the BPA. The project was supported by Plant & Food Research and a Massey University team – who discovered that not only can avocado be useful in baking, it can improve the melting point of ice-cream! The result was that in mid-2021 Valic NZ launched a new freeze-dried avocado powder under the OVAVO brand.

The next challenge is finding out what might be done with the skins and stones ... ■



# 4. We're now ready to embed the transformation into our core business activities

and so achieve better outcomes for our customers

With the changes we've been making to our organisation, Callaghan Innovation is well-positioned to progress our long-term strategy. We're getting into the shape we need to be in in order to be a first-rate innovation agency for Aotearoa.

We're on track with our transformation investment and have started to realise the benefits from it – particularly our **Digital Transformation** and our **Tātai Whetū programme**, where the new tools and insights have enabled us to engage more effectively and efficiently with our customers, as well as internally within Callaghan Innovation.

## Our Tātai Whetū programme

The Tātai Whetū programme is focused on carefully and deliberately redefining and evolving our vision and ways of working, so we can deliver more effectively on our mandate.

Over 2020/21 Callaghan Innovation began to activate its refreshed vision. The Tātai Whetū programme's **vision project** developed a refreshed vision statement for Callaghan Innovation by engaging in over 50 face to face sessions with staff across the organisation. The process confirmed Callaghan Innovation's namesake Sir Paul Callaghans' vision for 'New Zealand to be a Place where Talent wants to Live'.

Related to our vision, our behaviours reflect the culture we want to have. Building on the vision project and many months of kōrero, reflection and valuable feedback from our people, our **behaviours project** created four core behaviours that are at the heart of how the people of Callaghan Innovation approach our work.

- **Karawhiu** – We have the courage to give things a go
- **Whakatauira** – We lead by example, and trust others to do the same
- **Pūmanawa** – We use and share our knowledge to create better outcomes for all
- **Tautoko** – We support others to be successful in their roles and lives

**Te Unuhanga (our Treaty Partnership project)** is focused on identifying and embedding the values and characteristics of authentic treaty partnership at Callaghan Innovation. The project has been working across the business and with expert partners during 2020/21 to explore this in order to make recommendations about how to achieve this.

Our **Smart Risk project** has been focused on creating and embedding a unified approach to risk management that supports robust decision making so we can manage risks to success and continuously improve our business performance. This year the project has successfully delivered a new Risk Management Strategy and Risk Control Framework and ELMO Online Training module across Callaghan Innovation to support our people in their roles to identify, manage and escalate risks.



Callaghan Innovation is undergoing an extensive transformation to become an exemplar innovation agency – this work is modernising how we operate and ensuring that our technology, our systems and processes, and our buildings and facilities all have the right capability to support innovation in Aotearoa.

### Our Digital Transformation programme

Over 2020/21 our Digital Transformation gained momentum and we started to realise benefits from it.

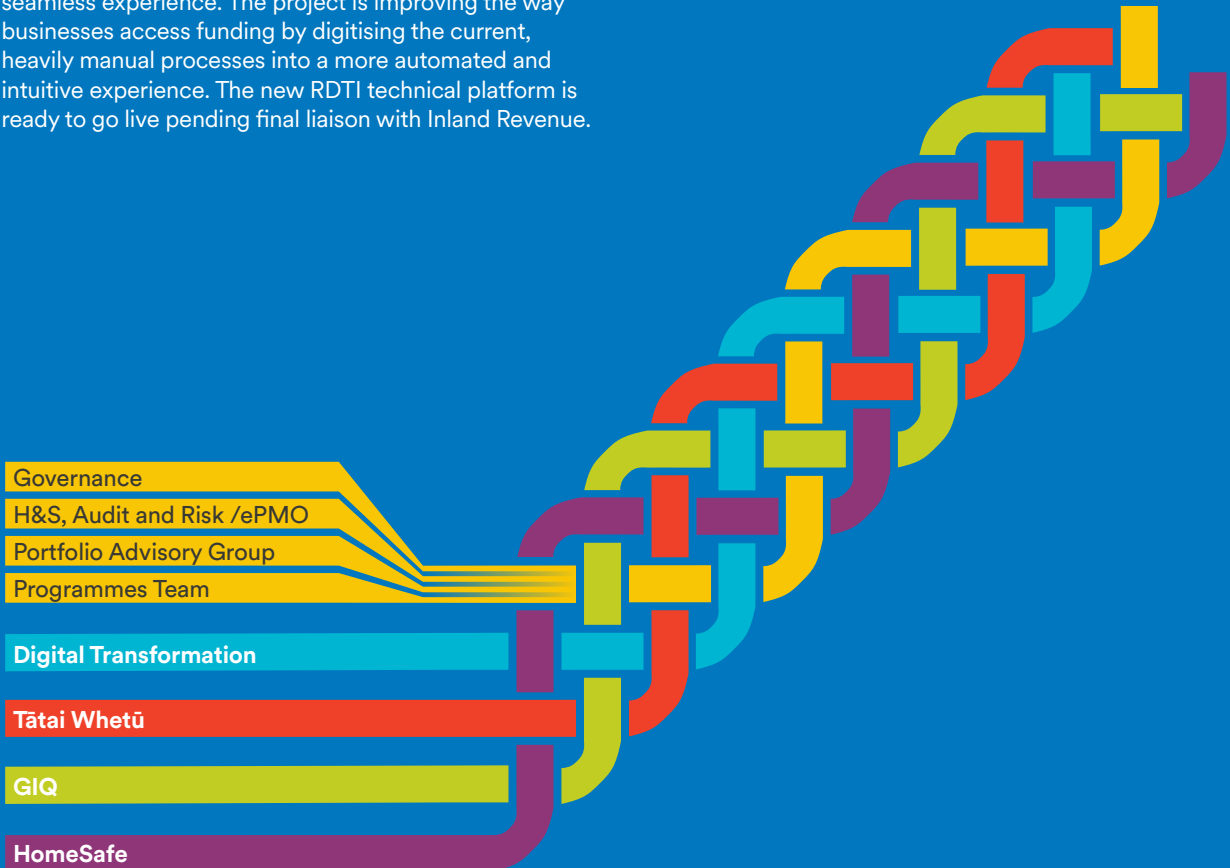
This programme focuses on transitioning our old IT infrastructure into modern cloud-based services that enable digital experiences. This will improve the quality and productivity of our services, make them more accessible, and also encourage collaboration. It means we will be able to keep pace with the extremely fast growth in science and technology.

### Hiwa-i-te-rangi – A better grants application process for our customers

Our Digital Transformation includes our Hiwa-i-te-rangi project, aimed at improving the Grants application process for our customers to provide a more automated seamless experience. The project is improving the way businesses access funding by digitising the current, heavily manual processes into a more automated and intuitive experience. The new RDTI technical platform is ready to go live pending final liaison with Inland Revenue.

As a result of the work we've done on our Digital Transformation:

- Introduction of Google Meet has resulted in a large proportion of Callaghan Innovation-initiated interactions occurring online.
- 479 alerts generated and responded to as a result of new security tools installed during the June quarter. ■





# Kia kaha

## A word from our CEO

### The importance of raranga

In March of this year, I was delighted to participate in a webinar to mark the 10-year anniversary of our namesake Sir Paul Callaghan's keynote address at the *StrategyNZ: Mapping our future* event in 2011. In this speech, Sir Paul "challenged New Zealanders to think about the type of country we might like Aotearoa to become."

The McGuinness Institute, which organised both the 2011 event and the 2021 webinar, also prepared a discussion paper *Mission Aotearoa: Mapping our future*. In my contribution to that document, I talked about the importance of 'raranga' or weaving. "By binding together our collective ambition, experience, skills and assets, we New Zealanders will put ourselves in the best place to solve today's challenges."

Looking back on the last 12 months, I see so much of what Callaghan Innovation has been doing has been 'raranga':

- We've gone out to our customers for feedback on the launch of the RDTI, and we've worked hard with our collaborators Inland Revenue (IR) and the Ministry of Business, Innovation & Employment (MBIE) to incorporate the feedback into our revisions.
- We've completed the new Wellington premises for MSL with world-leading features that have only been possible to create through close partnership between our scientists and engineers, our programme team and our suppliers.

- In Auckland, we've brought our science and business teams closer than ever before with the fit-out of our new combined offices, that celebrate weaving both visually and experientially.
- We've begun the process of working with various stakeholders at the Gracefield Innovation Quarter to ensure that the vision for the future of the site is a shared one.
- We are focused on ensuring that we are embedding into our core organisation the benefits of the outputs of all of our transformational programmes across digital and physical infrastructure, culture, and health and safety.

And the results speak for themselves. More customers than ever (over 3,000). More of them using multiple services than ever before (almost 20%). 86% of our existing grant recipients maintaining or growing their R&D spend despite the pandemic. 70% of all Callaghan Innovation-initiated customer interactions now occur online.

As I write this, New Zealand is once again locked down at Level 4. But there seems to be overwhelming support from the population for this course-of-action. 12 months on, New Zealand is better prepared for what the future may hold. Callaghan Innovation is better prepared too, and – more importantly – absolutely prepared to keep getting better.

Ngā mihi nui



**Vic Crone**  
Chief Executive

Callaghan Innovation is the official innovation agency of the New Zealand government. It's also the only Crown entity to have been named after a single individual, local scientist Sir Paul Callaghan.

Want to understand why, and be inspired like we are? Watch Paul's 20-minute presentation that set us all on this journey at [bit.ly/optimisticmythbusting](https://bit.ly/optimisticmythbusting)





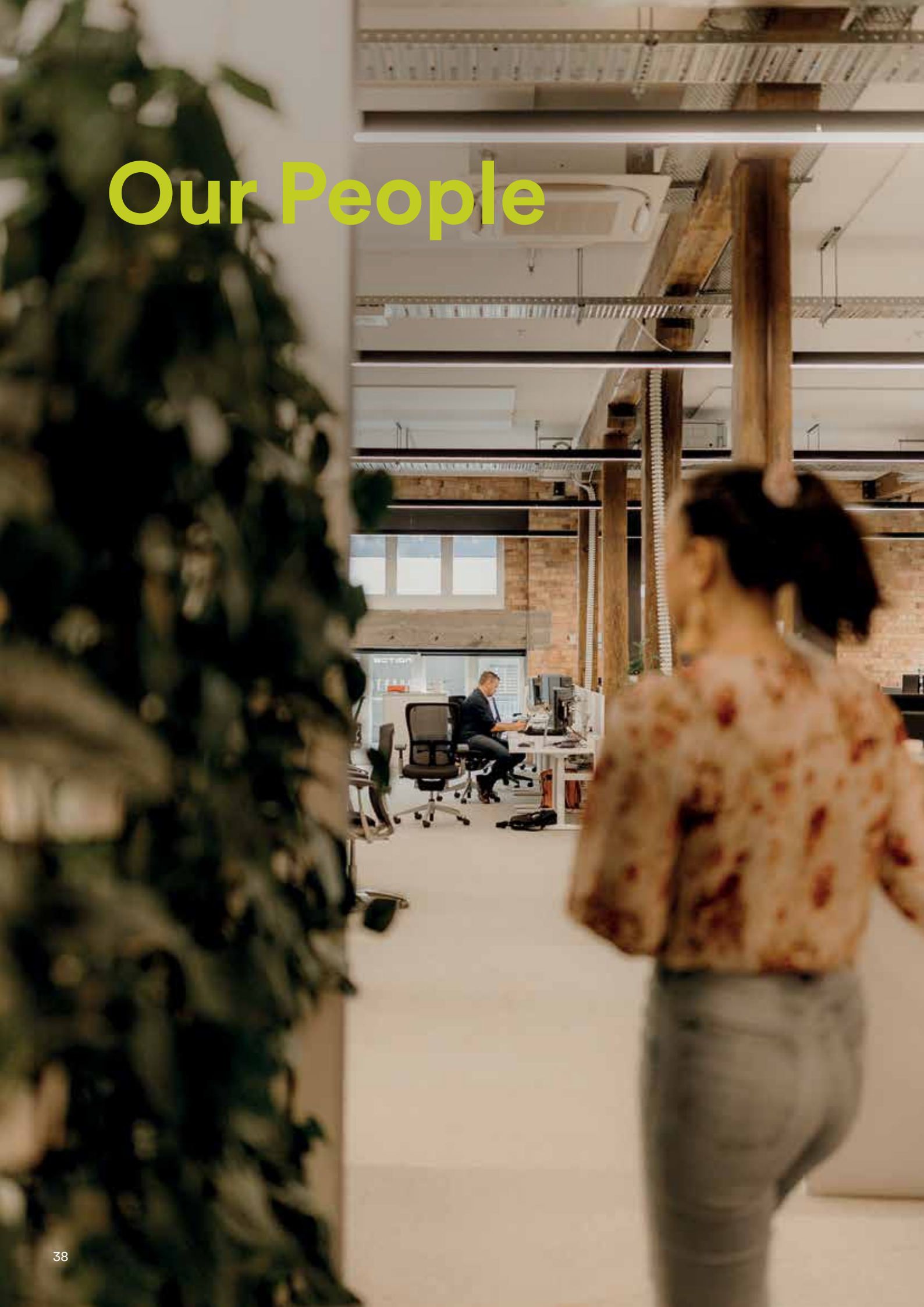


“By binding together our **collective ambition, experience, skills and assets**, we New Zealanders will put ourselves in the best place to solve today’s challenges.”

Vic Crone



# Our People



# People Investment – we're committed to being a good employer

## Leadership, talent and culture

2020/21 saw us focusing on programmes to live up to our ambition of making Callaghan Innovation a place where 'Talent wants to Live'. We introduced the Deloitte Talent maturity model to guide our approach in improving our Talent process. We have conducted a talent mapping exercise over the past two years, resulting in a good view of our population, their potential and who our top talent are. This talent data has been used for performance management and talent identification. In 2020/21 our Stars, Future Stars and High Professionals were invited to complete a self assessment and development plan. Nine of the Talent population have attended the Institute of Strategic Leaders programme.

Aligned to our Leadership framework, we have invested in our people's development and provided them with learning and development in key future-of-work skills including programmes for our leaders including Crucial Conversations and Crucial Accountability, Storytelling, Promoting Mental Health at Work and Leading Change.

## Recruitment, selection and induction

2020/21 saw significant changes to the way recruitment was done in the organisation with the appointment of a Talent and Engagement Lead and two Talent and Sourcing Advisors joining the People and Capability function. This team of specialists are dedicated to Recruitment and partner closely with the business to fill vacancies and promote the organisation in terms of talent attraction.

Over the last 12 months the Talent Team have introduced a number of digital tools to enable the organisation with talent selection whilst reducing bias in the process. These tools include utilisation of artificial intelligence via text based Natural Language Processing and Machine Learning (Predictive Hire) and Video Interviewing technology (Alcami). These technologies are providing us with greater insights resulting in better talent decisions and an enhanced candidate experience. An additional focus for the Talent Team in 2020/21 was hiring for Growth Mindset attributes. We now have the capability to do this using the CH3 Innovation Assessment tool.

The enhancement of our talent engagement model compliments the introduction of our new behaviours and working in an agile environment, by supporting the engagement of talent quickly to support the business, and the flexibility to apply our assessment tools in different ways to ensure we create the environment 'where talent wants to be'.

## Employee development, promotion and exit

In the 2020/21 year, our focus has been on enhancing capability across the business in crucial conversations, crucial accountability, promoting mental health, storytelling, and supporting the development of individuals.

We use our Learning Platform (ELMO) to build capability across the business. In the FY20/21 year we have bolstered learning around mental health, well-being, and speaking up and standing together to combat bullying. We have also enhanced learning to better support areas of our business, including our approach to enterprise risk management; the embedding of Google Workspace; furthering our project management, project governance, and change practices; activating innovation; and our role in the Public Service.

We continue to support our leaders to create positive experiences for new talent joining the organisation through our Te Waka Iti induction programme which engages our people with our behaviours and how we do things at Callaghan Innovation.

We engage with our departing talent to find out more about how they have found their time with us and have discussions to understand and identify areas where we could be doing better. This information is gathered to provide a comprehensive picture of focus areas to support and enable our people to succeed.

Over the FY20/21 year we have continued to grow our talent internally. At any one time we have had 15-25 people seconded into roles across the business supporting our programmes and building capabilities. In addition to this we have made a number of appointments of our current team into new roles.

## Flexibility and work design

Our flexible working framework and processes continue to support our people to work flexibly. Our people appreciate the ability to balance work and their personal/family commitments. It also enables our team to work in an environment that supports the work they need to deliver (ie: working remotely for focused work and in the office for collaborative work).

We have seen the benefit of enhanced wellbeing and empower our people to work from home when they or their family are slightly unwell, rather than coming into the work environment.



## Remuneration, recognition and conditions

The 2020/21 year has been particularly challenging with the ongoing direction from the Public Services Commission to apply restraint to remuneration.

We continue to support our technical team with career progression by applying our dedicated framework on building and recognising capabilities.

Long serving employees (20, 30, 40, 50 year service) are specifically recognised through our recognition programme.

Our ongoing focus is building a recognition/feedback culture. Our Chief Executive shares and recognises great work across the organisation on a fortnightly basis.

## Harassment and bullying prevention

We are reviewing our process for raising and addressing harassment and bullying within the organisation. We are working through a process of engagement of an independent external provider to deliver a safe and confidential forum for our people to raise their concerns.

Callaghan Innovation received two formal bullying complaints in the 2020/21 year. One allegation was investigated and no evidence of bullying was found. One further complaint is currently under investigation.

## Demographic information

As at 30 June 2020/21 2019/20 2018/19

### Workforce by location

Auckland	101	95	86
Wellington	359	336	298
Christchurch	29	27	29
Total number of Callaghan Innovation employees	489	458	413

### Workforce engagement

(figures for part time/full time do not include our casual employees)

Casual	7	6	6
Part-time	53	52	42
Full-time	436	400	365
Fixed-term	88	62	40
Permanent	394	390	367

### Gender

Male	313	288	267
Female	175	170	146
Gender Diverse	1	N/A	N/A

### Ethnicity

Asian	7.4%	4.8%	5.3%
Māori	2.8%	1.9%	2.4%
New Zealander	30.7%	26.2%	20.6%
Pacific Islands	1.6%	1.5%	1.0%
UK and Europe	13.5%	13.1%	12.8%
Unknown	37.2%	46.3%	53.5%
Other	6.7%	6.1%	3.9%

### Age

Less than 20 years	0.2%	0.9%	0.5%
20-29 years	8.2%	8.7%	9.2%
30-39 years	25.2%	26.2%	25.7%
40-49 years	30.7%	28.6%	29.1%
50-59 years	23.3%	24.0%	22.5%
60-69 years	10.8%	9.8%	10.2%
70-79 years	0.8%	0.4%	0.9%
Unknown	0.8%	1.3%	1.9%

## Our Homesafe programme

Our Health and Safety change programme, the 'HomeSafe Programme', was launched in October 2020. The programme is focused on improved management of the health, safety and environment risks faced as part of our work. In doing so, we will keep ourselves, and the people we work with, healthy and safe.

The programme was developed from the previous Health & Safety Restart Strategic Initiative. In early 2021, the programme was revised to focus on six projects. Work on the following three projects were progressed in 2020/21:

1. **Critical H&S Risks:** This project is focused initially on improving how we manage hazardous substances. In addition, we will also focus on risk associated with plant and machinery next year.
2. **Emergency Management:** This project is focused on improving our ability to be ready for, respond, and recover from an emergency.
3. **Carbon Neutral:** The project is focused on guiding Callaghan Innovation as we meet the government requirement of carbon neutrality by 2025.

Work on the other three projects (Leadership and culture, Work-related health, and Data and intelligence) is scheduled to commence in 2021/22.

## Our Hauora programme

Our Hauora programme focuses on each aspect of our people's wellbeing under three core areas. In 2020/21 we achieved some key changes and initiatives including:

### Education

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Implemented our Umbrella eLearning portal, promoting mental health, Essential Learning for Leaders, Speak Up and other learning that has been made available to employees.

### Environment

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- Significant improvements to our flexible working and leave policies enabling our people to manage their work around other commitments.
- Initiated an anti-bullying campaign, including CEO meetings with individuals and teams, promotion of our online anti-bullying training and we are in the process of engaging with a trusted third party for employees to raise anonymous issues or complaints.

### Community engagement

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Conducted several targeted campaigns including Pink Shirt Day, Mental Health Awareness week, Volunteering day etc which saw employees across the country get involved sharing their stories on our internal social media.



# Executive leadership team

## **Vic Crone**, Chief Executive

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Vic has significant executive and governance experience in technology and innovation. She brings a strong customer focus, and a track record of leading and implementing strategy, and building organisational culture.

Vic was previously the Managing Director of Xero, NZ and New Markets, following executive roles at Chorus and Telecom New Zealand.

Vic is Chair of the Stats NZ Advisory Board and Figure. NZ Board. She has also been an Independent Director on the Boards of a number of companies and organisations in the technology sector, including RedShield, Creative HQ and the Hi-Tech Trust.

## **Esther Livingston**, Chief Operations Officer – Internal Partnering

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Esther specialises in ensuring excellence in delivery of services that support great customer outcomes. Esther is known for her collaborative and values-driven approach to executive leadership and she has extensive general management and executive leadership experience across the public and private sectors. She is a strong communicator and facilitator of change, driven by both the business and its customers.

At Callaghan Innovation, she leads our Internal Partnering Group which includes the RDTI, Contracting and Funding, Policy, International and Design, and People and Capability functions. Esther was formerly our General Manager – People and Capability and previously held general manager positions for ESR, Tourism New Zealand, Infinity Solutions and Comtex Group. She has worked as an independent consultant and has a MBS (Hons).

## **Jen Cherrington**, Chief Digital Officer

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As a member of the leadership team, Jen leads Callaghan Innovation's digital function and team, helping the organisation utilise the tools and technology needed to look after our very diverse range of customers and their innovation needs.

With 20+ years in global digital/technology roles across a variety of listed businesses as well as startups, Jen brings broad industry experience that focuses on data driven and UX optimised customer led outcomes.

Most recently CTO at Genesis Energy in NZ, Jen worked previously in the UK for 25 years with the likes of eBay, Amazon, British Telecom and Electrocomponents and currently sits on the technology committee as an independent advisor for Foodstuffs NI.

## **Paul Linton**, General Manager Research and Technical Services, and Commercial Businesses

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Paul has a background in international business and economic development in both the private and public sectors. He has held senior positions with MetService of New Zealand, Airways New Zealand, New Zealand Trade & Enterprise and Objective Corporation.

He has also held a number of roles as New Zealand's trade commissioner in Australia, Asia and the Pacific.

His industry background spans a wide range of technology organisations – incorporating software, data, science, engineering and manufacturing.

Paul runs the Research & Technical Services divisions of Callaghan Innovation employing New Zealand's leading scientists and engineers who provide R&D, product prototyping and innovation services. These divisions include Biotechnology, Advanced Manufacturing, IoT and Data Solutions, and Advanced Materials. Paul also runs the commercial businesses of Callaghan Innovation. These include export businesses KiwiStar Optics, GlycoSyn and the Measurement Standards Laboratory (MSL) of New Zealand.

## **Stefan Korn**, General Manager – MEE & Sectors

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Stefan Korn has launched and developed numerous successful business ventures, many of which are now operating in Australia, the US and Europe.

In his prior role as CEO of Creative HQ, Stefan led a team that launched accelerators for startups, government and corporates, inclusive innovation initiatives such as the Korero Matauranga (NZ's Education Summits), and international innovation training programmes.

Stefan has a PhD in Neural Networks/Artificial Intelligence and an MBA in International Business. He has also authored a range of books on early-stage venture development as well as parenting for dads. In 2010 Stefan was recognised as a New Zealander of the Year by North & South Magazine for innovation in parenting education.

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Lara Ariell resigned as Chief Financial Officer in June 2021.

# Governance

The Board is Callaghan Innovation's governing body. All decisions relating to the organisation's operation are made by, or under the authority of, the Board in accordance with the Callaghan Innovation Act 2012 and the Crown Entities Act 2004.

The Minister of Research, Science and Innovation appointed the Chief Executive of the Ministry of Business, Innovation and Employment as an advisor to the Board. This role was delegated to Paul Stocks, Deputy Chief Executive – Science, Skills and Innovation.

The Board meets up to eight times a year.

This year during Alert Level 4 the Board met weekly with management to provide oversight and support at an incredibly hectic time for the organisation.

During the FY20 the Board membership changed, with Stefan Korn finishing up in July 2020. We would like to acknowledge and thank Stefan for the commitment, knowledge and expertise he brought to the table.

There are five Board committees.

## **Audit and Risk**

This committee assists the Board in fulfilling its responsibilities for the oversight of the internal control environment, external accountability, the internal audit function, legislative compliance, internal reporting, external audit and oversight of the risk management framework.

## **People, culture and diversity** (formerly Appointments and Remuneration)

This committee oversees and recommends to the Board all matters in regard to people, culture, and diversity, including the effective management of the appointment and remuneration of the Chief Executive.

## **Grants**

The Grants Committee makes recommendations on proposals received for funding of business-led research and development. It also oversees operational policy-setting and consideration of the impacts of grants on business-led research and development. In addition to the Board members, this committee includes two external members.

## **Health, safety and environment**

The purpose of the HSE Committee is to assist the Board with its responsibilities with respect to the HSE practices of Callaghan Innovation.

## **Gracefield Development Governance Group**

The committee provides oversight of the effective and efficient delivery of the GIQ programme business case.



# Board members

## Pete Hodgson, Chair

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Pete Hodgson is a former Cabinet Minister (New Zealand Government 1999-2008) governing a variety of portfolios including Research, Science and Technology, Economic Development, Tertiary Education, Health and Commerce. He currently serves on the Board of Otago Innovation Limited (OIL) the University of Otago's tech transfer office and was Chief Executive of the company from 2014-18.

Since 2018 he has been involved in the governance of the \$1.5B New Dunedin Hospital construction project in several capacities, and is also the Chair of the Southern District Health Board. He serves on the boards of a small, ever-changing list of start-ups. He has a Bachelor's degree in Veterinary Science from Massey University and a Master's degree in Public Policy (with Distinction) from Victoria University of Wellington. In earlier lives he has practised as a veterinarian in New Zealand and the UK, taught senior secondary physics, and owned and run several small businesses.

## Angela Bull

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Angela Bull has a multi-discipline background in law, property development, and change management. She leads one of New Zealand's largest privately held property investment groups and holds a number of director roles, including with the Real Estate Institute of New Zealand (REINZ) and realestate.co.nz.

Angela is a qualified lawyer and member of New Zealand Global Women.

## Elena Trout

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Elena Trout is a professional civil engineer with over 30 years of experience of leading the development and delivery of large engineering projects; notably in the infrastructure, transport and the energy sectors. She is a well-seasoned company director and currently holds directorships with a number of companies and organisations.

Elena is also actively involved with professional associations for engineers, is a past President and Distinguished Fellow of Engineering New Zealand and a Fellow of the Institute of Directors.

## Jennifer Kerr

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Jennifer Kerr works as an Independent Director and roles include New Zealand Trade and Enterprise, Waipa Networks Ltd, Eke Panuku and New Zealand Rugby. She has extensive international experience in the HR and Health, Safety and Wellbeing sectors in North America, Europe, the United Kingdom and New Zealand. She was formerly General Manager of Customers, People and Environment at Transpower and Group Director Human Resources and Health & Safety at Fonterra.

Jennifer is a member of New Zealand Global Women and has taken an active role during her career in mentoring and coaching other women to achieve their potential. She is of Ngāti Mutunga and Ngāti Tama descent.

## Matanuku Mahuika

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Matanuku Mahuika has more than 25 years' experience as a lawyer advising on a wide range of corporate, commercial, Treaty of Waitangi, Māori land and administrative law issues. He has experience in working with early stage and start-up businesses and has held a wide variety of directorships and governance roles. Matanuku's tribal affiliations are Ngāti Porou and Ngāti Raukawa.

## Shaun Hendy

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Professor Shaun Hendy MNZM FRSNZ teaches in both the Department of Physics and the Centre for Innovation and Entrepreneurship at the University of Auckland. He was founding Director of Te Pūnaha Matatini, a national Centre of Research Excellence, and is a co-founder of the green fintech company, Toha.

He has won a number of awards, including the Callaghan Medal, the Prime Minister's Science Media Communication Prize, and the E.O. Tuck medal for applied mathematics. In 2021, he and his team were awarded the Prime Minister's Science Prize for their COVID-19 response. He co-authored *Get Off the Grass* with the late Sir Paul Callaghan in 2012, and has since written two other books, *Silencing Science* and *#NoFly*.

## Callaghan Innovation Board terms and committee membership

Board members	End of Board term	Audit and Risk	People, Culture, and Diversity (formerly Appointments and Remuneration)	HSE	Grants	Gracefield Development Governance Group
Pete Hodgson (Chair)	30/06/2024	Ex officio member	Ex officio member	Ex officio member	Ex officio member	Ex officio member
Elena Trout	18/06/2022	Chair				Member
Matanuku Mahuika	18/06/2022	Member	Member			
Angela Bull	19/03/2022			Member		Chair
Jennifer Kerr (Deputy Chair)	30/09/2021		Member	Chair		Member
Shaun Hendy	30/09/2021	Member		Member	Chair	

Rachel Kelly will take up her appointment to the Board and People, Culture, and Diversity Committee from 1 July 2021.  
Stefan Korn retired from the Board on 12 July 2020 to take up the role of General Manager – MEE & Sectors at Callaghan Innovation.

Non-board members	Term	Audit and Risk	Appointments and Remuneration	HSE	Grants
Alastair McCormack	30/09/2021				External member
Peter Townsend	30/09/2021				External member

Governance policies underpin the Board’s responsibilities. These policies are regularly reviewed and include a Code of Conduct and obligations regarding the disclosure of interests. A formal delegation framework is in place relating to Callaghan Innovation’s principal operations and the delegation of financial authority and decision rights from the Board to the Chief Executive, managers and staff.

Business continuity plans are in place, and these are reviewed and refreshed to reflect organisational changes and context.



# Statement of Responsibility



The Callaghan Innovation Board is responsible for the preparation of the Financial Statements and the Statement of Service Performance for the period 1 July 2020 to 30 June 2021, and the judgements used in them. This includes responsibility for any end-of-year performance information provided by Callaghan Innovation, under section 19A of the Public Finance Act 1989, whether or not that information is included in this annual report.

The Board is also responsible for establishing and maintaining a system of internal controls designed to provide reasonable assurance as to the integrity and reliability of financial reporting. In the opinion of the Board, the financial statements and statement of performance for the period from 1 July 2020 to 30 June 2021 fairly reflect the financial position and operations of Callaghan Innovation.



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**Pete Hodgson** (Chair)



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**Elena Trout** (Board Member)



# Statement of Service Performance



This Statement of Services Performance reports on progress against our Statement of Performance Expectations for the year ending 30 June 2021, and our Statement of Intent to 30 June 2022.

## Available appropriations

Callaghan Innovation received funding from eight appropriations in the 2020/21 financial year; six annual appropriations (one of which had multiple categories of outputs) and two multi-year appropriations.

The bulk of Callaghan Innovation's operational funding comes from the 'Callaghan Innovation Multi-Category Appropriation'. We also administer three funding programmes aimed at helping businesses invest more in R&D. We administer a range of R&D grants to add scale to businesses' own R&D investments for greater impact. Our R&D grants are structured to meet a range of business needs, whether young startups or established R&D performers.

The table below shows the funding made available in 2020/21 by the Crown through the Estimates and Supplementary Estimates, compared with the amounts recognised by Callaghan Innovation.

	Estimates	Supplementary	Actual	Difference to
	\$000	Estimates	\$000	Supplementary
		\$000		Estimates
				\$000
<b>Annual Multi Category Appropriation</b>				
Building Business Innovation	36,378	39,625	38,056	(1,569)
Research and Development Services and Facilities for Business and Industry	36,160	37,260	32,836	(4,424)
Business Research and Development Contract Management	7,750	7,750	8,014	264
<b>Total Multi Category Appropriation</b>	<b>80,288</b>	<b>84,635</b>	<b>78,906</b>	<b>(5,729)</b>
<b>Other Annual Appropriations</b>				
National Measurement Standards	8,118	8,118	8,118	-
Future-proofing New Zealand's manufacturing sector by driving Industry 4.0 uptake and skills development	1,898	2,375	2,034	(341)
Repayable Grants for Start-ups	20,746	18,809	13,695	(5,114)
Callaghan Innovation Capital Expenditure	29,458	3,958	3,958	-



<b>Multi Year Appropriations</b>	<b>Estimates \$000</b>	<b>Supplementary Estimates \$000</b>	<b>Actual \$000</b>	<b>Difference to Supplementary Estimates \$000</b>
<i>Research and development growth grants (FY2018 – FY2022)</i>				
<b>Total appropriation value</b>	<b>778,109</b>	<b>743,109</b>	<b>743,109</b>	<b>-</b>
Spend up to 30 June 2020	464,740	588,397	578,047	(10,350)
<b>Available appropriation for FY2020/21</b>	<b>313,369</b>	<b>154,712</b>	<b>165,062</b>	<b>10,350</b>
FY2020/21 spend	172,586	154,712	120,811	(33,901)
<b>Remaining appropriation at 30 June 2021</b>	<b>140,783</b>	<b>-</b>	<b>44,251</b>	<b>44,251</b>
<i>Targeted Business Research &amp; Development Funding (FY2018 – FY2022)</i>				
<b>Total appropriation value</b>	<b>191,335</b>	<b>226,335</b>	<b>226,335</b>	<b>-</b>
Spend up to 30 June 2020	121,335	106,729	106,406	(323)
<b>Available appropriation for FY2020/21</b>	<b>70,000</b>	<b>119,606</b>	<b>119,929</b>	<b>323</b>
FY2020/21 spend	32,500	82,106	41,583	(40,523)
<b>Remaining appropriation at 30 June 2021</b>	<b>37,500</b>	<b>37,500</b>	<b>78,346</b>	<b>40,846</b>

## Callaghan Innovation operations: Multi-Category Appropriation

This appropriation enables us to broker and provide innovation services to businesses and deliver programmes enhancing New Zealand's innovation system. Together, this encourages businesses to innovate and develop new and improved products, processes and services.

It is made up of the following output categories:

- Building business innovation (including administration of the Research and Development Loan Scheme)
- Research and development services and facilities for business and industry
- Business research and development contract management.

There are also two further categories which sit within this appropriation, relating to the R&D Loan Scheme. The Ministry of Business, Innovation and Employment is considered the principal for these loans and has recorded the relevant financial transactions in their financial statements:

- R&D short term loan scheme initial fair value write-down
- R&D short term loan scheme subsequent impairment of loans.

Funding and performance expectations have been set for each category within the appropriation as well as for the appropriation as a whole. Our performance against these expectations in 2020/21 is summarised below.

## Overall performance

Over the 2020/21 financial year, Callaghan Innovation has seen a significant increase in the number of businesses accessing its services. Despite this increase in demand, we have been able to maintain our service quality with our net promoter scores exceeding our targets in most cases.

Despite increased demand for our services from customers, we have been able to achieve all of the milestones for our key transformation programmes, with the exception of the GIQ programme. We achieved two out of the six GIQ measures because of resequencing decisions for efficiency reasons and external factors outside our control such as supply chain issues and COVID-19. Despite missing four milestones this year, the GIQ programme remains on-track to be completed by year four as planned.

We had planned to develop a GIQ Strategic Services Programme Business Case this year, but have chosen to reprioritise our effort towards a Strategic Assessment to define the key strategic choices that could shape the future redevelopment of GIQ to:

- Maximise its contribution to the RSI system
- Contribute to Government's policy goals
- Best support New Zealand businesses to accelerate the commercialisation of their innovations.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Total number of organisations working with Callaghan Innovation on services this Financial Year.	3,043	2,600	2,866	2,600
Net Promoter Score <sup>1</sup> of all service touchpoints.	+70	+60	+74	+60
Total number of organisations working with Callaghan Innovation and NZTE as a F700 customer. <sup>2</sup>	668	300	386	300

### Digital Transformation Programme

Implement new Data Integration and architecture Platform: Implement new data integration platform and critical Integrations to support new Grants and Website platforms.	On-track <sup>3</sup>	Achieved	N/A	N/A
Complete Network Optimisation: Upgrades to the Digital Network, including system updates, enhanced security, removal of single points of failure, and removal of unnecessary complexity and costs.	On-track <sup>3</sup>	Achieved	N/A	N/A
Deliver a new grants platform (Hiwa-i-te-rangi): Deliver a new RDTI and Grants platform, starting with the RDTI delivery in May 2021. Grants Development and subsequent re-planning will also begin in May 2021.	On-track <sup>3</sup>	Achieved	N/A	N/A

1. NPS captures the perceived value a customer gains from experiencing a product or service. This is inferred by the degree to which they are likely to recommend the service to their peers and is measured as the percentage of promoters (high likelihood of recommending our services) minus detractors (customers who are unlikely to recommend our services).

2. We work with NZTE to target a specific segment of clients (Focus customers, formerly known as the F700). In Q3 NZTE changed its definition of priority customers to a new 'focus' segment of approximately 1,400 customers vs 700 in the past (known as F700). From Q3, the new 1400 segment has been used to report this metric.

3. This is a multi-year programme of work. All milestones have been met to date and the project is on time and within budget.



<b>GIQ Programme</b>	<b>2020/21 result</b>	<b>2020/21 performance standard</b>	<b>2019/20 result</b>	<b>2019/20 performance standard</b>
Demolition of four structures onsite	Not achieved	Achieved	N/A	N/A
Construction of a hazardous goods facility commenced	Not achieved	Achieved	N/A	N/A
Construction of flexible office accommodation commenced	Not achieved	Achieved	N/A	N/A
GIQ Strategic Services Programme Business Case complete	N/A (see page 51)	Achieved	N/A	N/A
Sitewide Masterplan complete	Achieved	Achieved	N/A	N/A
Biotech Hub Indicative Business Case complete	Achieved (Stage One)	Achieved	N/A	N/A
<b>Tātai Whetū Programme</b>				
Embed new Operating Model and associated processes	On-track <sup>1</sup>	Achieved	N/A	N/A
Deliver Shared Vision, Values, and Identity	On-track <sup>1</sup>	Achieved	N/A	N/A
Embed new Risk Culture in Callaghan Innovation	On-track <sup>1</sup>	Achieved	N/A	N/A
<b>Māori Economy</b>				
Number of Iwi & Trusts served	16	5	N/A	N/A
Defining our role as Treaty partner	On-track <sup>1</sup>	Achieved	N/A	N/A
<b>Health and Safety</b>				
Full implementation of PCBU framework	Achieved	Achieved	N/A	N/A
HSE Critical Risk Framework Operationalised	Achieved	Achieved	N/A	N/A
Wellbeing strategy operationalised – engagement score for Wellness above 6.9 and Happiness above 7.4	Wellness of 6.9 and Happiness of 7.4	Achieved	N/A	N/A
<b>Bio-resource Processing Alliance (BPA)</b>				
Number of industry partners involved in research projects	Baseline of 37	Baseline to be established	N/A	N/A
Number of new products or processes developed for industry partners	Baseline of 47	Baseline to be established	N/A	N/A

1. This is a multi-year programme of work. All milestones have been met to date and the project is on time and within budget.

<b>NZ Product Accelerator (NZPA)</b>	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of industry partners involved in research projects	Baseline of 32	Baseline to be established	N/A	N/A
Number of new products or processes developed for industry partners	Baseline of 29	Baseline to be established	N/A	N/A
<b>NZ Food Innovation Network</b>				
Continued operation of the New Zealand Food Innovation Network and support MBIE with the programme review	Achieved	Achieved	N/A	N/A

Some performance measures, such as Net Promoter Score (NPS) and the proportion of customers maintaining or increasing their R&D spend, are based on client surveys or self reported data. These measures are inherently reliant on the number of responses, and the accuracy of self reported data.

## Categories

### 1. Building business innovation

This appropriation is only for activities that increase business investment in R&D or raise awareness of its value, both of which are core roles for us. Through this appropriation, we help businesses innovate and grow faster and make the innovation system better. Our services through this appropriation support New Zealand's high-value manufacturing and help businesses get relevant innovation advice, technical expertise, and training.

<b>Financial performance</b>	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation	38,056	37,100	34,528	32,400
Other Revenue	1,256	1,400	1,444	900
<b>Total Revenue</b>	<b>39,312</b>	<b>38,500</b>	<b>35,972</b>	<b>33,300</b>
Expenses	32,648	38,500	23,968	33,300
<b>Net surplus/(deficit)</b>	<b>6,664</b>	<b>-</b>	<b>12,004</b>	<b>-</b>



## Performance measures

The COVID-19 restrictions have led to cancellations of events that were reliant on travel and have therefore had an impact on the number and type of events we have been able to run this year. We have continued to pivot by delivering our events digitally where possible.

Our free Scale-Up NZ platform has become even more important in a COVID-19 world, because it makes it faster and easier for ambitious businesses to find and connect with the people, capital and other help they need to innovate and grow, both here and offshore. In 2020/21, the platform profiled 2,191 organisations and received over 450 introduction requests. In addition, there were over 103,000 sessions, approximately 300,000 page views, and 900 sign ups to the year ending June 2021.

Despite the positives this year, we did not manage to achieve our target for unique opens for our monthly Accelerate e-newsletter. An unscheduled outage in January 2021 and lower than anticipated engagement meant that we achieved 2,905 unique opens rather than the 3,500 target we had set for the year.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of organisations working with Callaghan Innovation in the following services:	1,008	1,000	1,101	1,200
<ul style="list-style-type: none"> <li>• Programmes</li> <li>• Events</li> <li>• International delegations</li> <li>• Innovation skills</li> </ul>				
Net promoter score for Events	+47	+30	+48	+30
Net promoter score for International Missions	N/A	+60	+69	+60
Net promoter score for Innovation Skills	+57	+60	+74	+60
Total unique opens of Callaghan Innovation's monthly Accelerate e-newsletter	2,905	3,500	N/A	N/A

## Scale-Up NZ

Organisations profiled on Scale-Up NZ	2,191	2,000	N/A	N/A
Introduction requests <sup>1</sup>	452	450	N/A	N/A

## HealthTech Activator

Define programmes and services required to smooth the commercialisation journey of Healthtech companies	Achieved	Development and delivery of 75% of programmes and services	N/A	N/A
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1. Cumulative since its launch in April 2019.

## 2. Research and development services and facilities for business and industry

This appropriation is limited to providing research and technical expertise and facilities to businesses and industry. By connecting businesses and industries to product and process development capabilities, data and analytics expertise, open labs, engineering workshops and pilot plants, we help them innovate and grow. We also connect businesses with other research providers, where they have complementary technical expertise. Our point of difference is our deep links to all parts of the innovation system and our ability to move quickly to connect businesses with the relevant help they need.

### Financial performance

	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation	32,836	43,900	34,198	36,400
Crown Revenue – National Science Challenge	13,324	17,800	12,083	18,300
Commercial Revenue	16,319	17,900	17,377	23,000
Other Revenue	4,852	1,800	3,569	1,600
<b>Total Revenue</b>	<b>67,331</b>	<b>81,400</b>	<b>67,227</b>	<b>79,300</b>
Expenses	74,811	82,500	66,846	81,800
<b>Net surplus/(deficit)</b>	<b>(7,480)</b>	<b>(1,100)</b>	<b>381</b>	<b>(2,500)</b>

Within the budget values above, we have appropriation funding and equal and offsetting costs of \$4.425m p.a. relating to the Bioresource Processing Alliance and New Zealand product accelerator. For accounting purposes, we are considered Agent for these schemes and the related revenue and related costs are not included in the actual results above (2021: \$3.619m, 2020: \$1.755m).

### Performance measures

Demand and satisfaction with our Research Development Services (RDS) continues to grow, exceeding prior year results and our target for the year. In 2020/21 we continued implementing our RDS Strategy which consisted of:

- A review of our pricing model and piloting improvements
- Investigating ways to better support industry R&D to prototype, pilot and scale innovative technological ideas
- Developing a pilot in the biotech hub space as a lighthouse concept of how the future of RDS and the GIQ site could work as an integrated community
- Developing a high level roadmap we shall now use to further inform key areas to target technical and scientific expertise.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of New Zealand organisations with a research and technical service product this financial year	285	216-264	256	240
Net Promoter Score from Research and Technical Services	+58	+40	+47	+50
RTS Strategy – Deliver and implement a new commercial operating model that supports high-impact ‘frontier firms’ and established R&D players, while sustaining revenues	Achieved	Achieved	N/A	N/A



### 3. Business research and development contract management

This category is intended to achieve efficient and effective allocation and contracting of research, science and technology output, and grants to maximise their returns to New Zealand.

This appropriation is limited to businesses or individuals providing research, science and technology output, or the award of grants. It also covers negotiating, managing and monitoring the related contracts with these businesses or individuals. We manage three R&D grant funds on behalf of the Ministry of Business, Innovation and Employment. We allocate and monitor grants in a robust, transparent, and efficient way.

#### Financial performance

	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation	8,014	7,750	7,788	7,800
Other Revenue	936	500	635	400
<b>Total Revenue</b>	<b>8,950</b>	<b>8,250</b>	<b>8,423</b>	<b>8,200</b>
Expenses	13,131	8,250	11,418	8,200
<b>Net surplus/(deficit)</b>	<b>(4,181)</b>	<b>-</b>	<b>(2,995)</b>	<b>-</b>

#### Performance measures

Demand for Callaghan Innovation’s Project Grants and Student Grants continued strongly during 2020/21, which points to exciting opportunities for New Zealand’s economic recovery and future growth. We were able to meet this increase without compromising our service target of 30 working days.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of new project and student grant applications received during the financial year	1,357	700	968	700
Percentage of growth, project and Student fellowship applications who have received a decision within 30 working days of the receipt of the completed application	92%	90%	89%	90%

## 4. National measurement standards

This appropriation is limited to providing specified standards for traceable physical measurement in New Zealand. We help companies selling products and services that are dependent on accurate and internationally accepted traceable physical measurements. Our Measurements Standards Laboratory (MSL) is New Zealand's national metrology institute, ensuring that units of measurement used here are consistent with the International System of Units. MSL delivers services in accordance with its role assigned under the Measurement Standards Act 1992.

### Financial performance

	2020/21 Actual	2020/21 Budget	2019/20 Actual	2019/20 Budget
	\$000	\$000	\$000	\$000
<b>Revenue</b>				
Crown Revenue – Appropriation	8,118	8,100	7,632	7,600
Commercial Revenue	519	500	585	600
Other Revenue	255	200	284	300
<b>Total Revenue</b>	<b>8,892</b>	<b>8,800</b>	<b>8,501</b>	<b>8,500</b>
Expenses	9,429	8,800	9,138	8,500
<b>Net surplus/(deficit)</b>	<b>(537)</b>	<b>-</b>	<b>(637)</b>	<b>-</b>

### Performance measures

There were 108 technical procedures in validation on 1 July 2021, two of which were validated or revalidated during the three months from 1 April 2021 to 30 June 2021. There are no outstanding corrective action requests from previous audits as at 30 June 2021.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Provide national measurements and standards and related services in accordance with statutory obligations under section 4 of the Measurement Standards Act 1992, reported annually to the minister, and accepted	Achieved	Achieved	Achieved	Achieved
All technical procedures related to the maintenance of national measurement standards (in accordance with the resolutions and recommendations of the Metre Convention) independently reviewed and validated, with all external review actions completed by the end of the financial year	Achieved	Achieved	Achieved	Achieved



## 5. Industry 4.0

The fourth industrial revolution – dubbed ‘Industry 4.0’ – is a phenomenon happening now. It is characterised by a fusion of technologies that is blurring the lines between the physical, digital and cyber-physical. Helping companies adapt to Industry 4.0 is a priority for us in our role as New Zealand’s innovation agency. The Industry 4.0 appropriation helps businesses make the most out of the opportunities Industry 4.0 offers. Our experts deliver a range of relevant services, including advanced manufacturing R&D, Lean manufacturing training, 3D printing and industrial robot hire. We also provide access to events, sector collaborations and overseas delegations.

### Financial performance

Future-proofing New Zealand’s manufacturing sector by driving Industry 4.0 uptake and skills development	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation	2,034	1,400	-	1,400
<b>Total Revenue</b>	<b>2,034</b>	<b>1,400</b>	<b>-</b>	<b>1,400</b>
Expenses	2,034	1,400	29	1,400
<b>Net surplus/(deficit)</b>	<b>-</b>	<b>-</b>	<b>(29)</b>	<b>-</b>

### Performance measures

Established in 2020/21, the network reached over a thousand customers in its first year and programmes, such as Smart Factory visits, were able to successfully pivot to digital and virtual delivery in response to COVID-19.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of customers who received a service during the financial year	Baseline of 1,118	Baseline to be established	Not measured	Baseline to be established
Net Promoter Score from customers who receive a service during the financial year	Baseline of +47	Baseline to be established	Not measured	Baseline to be established
Deliver a programme that includes at least 10 Industry 4.0 factory site visits per year and a dedicated mobile showcase to demonstrate Industry 4.0 technology	Achieved	New measure	N/A	N/A

## Non-departmental capital expenditure

This appropriation is limited to capital expenditure to help establish and develop an advanced technology institute. This capital expenditure will support the purchase or development of assets by and for Callaghan Innovation's use, to ensure we have the appropriate infrastructure to provide the best possible services to businesses.

### Financial performance

	2020/21 Actual	2020/21 Budget	2019/20 Actual	2019/20 Budget
Callaghan Innovation Capital Appropriations	\$000	\$000	\$000	\$000
Gracefield Innovation Quarter	-	8,000	-	29,000
Investment into R&D capability	2,100	2,200	6,500	8,600
Measurement Standards	1,858	1,900	3,440	3,500
<b>Total Capital Contributions</b>	<b>3,958</b>	<b>12,100</b>	<b>9,940</b>	<b>41,100</b>

Capital appropriations are typically drawn down in advance of actual expenditure requirements.

### Performance measures

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Any physical and virtual infrastructure investment is aligned with the overall strategy, mix of services and business engagement model	Achieved	Achieved	Achieved	Achieved
Any major capital project proposal is developed in accordance with published Treasury business case guidance	Achieved	Achieved	Achieved	Achieved

## Research and Development growth grants

Growth Grants were designed to help businesses with a track record in R&D spending to further increase that spend. We provided 20 percent co-funding for R&D for an initial three years with an extension option, capped at \$5 million per year. The Crown funded Growth Grants through a multi-year appropriation. Growth Grants have now been phased out with the introduction of the R&D Tax Incentive. The Scheme closed to new customers in March 2019, and the last date for existing customers to submit claims is 30 September 2021.

### Financial measures

	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation (Grant Funding)	120,811	138,400	202,808	174,200
<b>Total Revenue</b>	<b>120,811</b>	<b>138,400</b>	<b>202,808</b>	<b>174,200</b>
Grant Expenses	120,811	138,400	202,808	174,200
<b>Net surplus/(deficit)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### Performance measures

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Percentage of businesses receiving a growth grant that maintain or increase their research and development expenditure over the grant period	86%	70%	89%	70%



## Targeted business research and development funding

R&D Project Grants help increase business investment in R&D, especially if they have less-established R&D programmes. We provide up to 40 percent co-funding for R&D.

Our R&D experience, career and fellowship grants support undergraduate and graduate students to work as interns in New Zealand's excellent commercial R&D facilities. A win-win for both industry and the students.

The Crown funds these grants through a multi-year appropriation.

### Financial measures

	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation (Grant Funding)	41,583	32,500	46,519	32,500
<b>Total Revenue</b>	<b>41,583</b>	<b>32,500</b>	<b>46,519</b>	<b>32,500</b>
Grant Expenses	41,583	32,500	46,519	32,500
<b>Net surplus/(deficit)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### Performance measures

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of active Project Grants this financial year	610	570	576	570
Net Promoter Score from Project Grants recipients	+82	+70	+74	Baseline to be established
Percentage of Project Grant recipients who perceived that the grant-funded project had an overall positive impact on their business <sup>1</sup>	97%	95%	93%	95%
Percentage of Project Grant recipients who perceived that the grant-funded project increased knowledge acquisition <sup>1</sup>	94%	85%	91%	85%
Percentage of Project Grant recipients who perceived that the grant-funded project improved business productivity <sup>1</sup>	83%	85%	89%	85%
Net Promoter Score from Experience Grants recipients	+91	+70	+93	+70

1. Only grant recipients who submit their final report answer these questions. They are not mandatory to answer.

## Repayable grants for startups

Our Incubator Support Programme provides services and funding to help high-value New Zealand startups grow faster. We intend to support the growth of new technology-focused startups.

In April 2020 Callaghan Innovation launched a refreshed and more ambitious version of this programme, with four Technology Incubation Partners focusing on sectors that are strategically important to New Zealand. The Technology Incubator programme ended the year with an impressive and well balanced portfolio from private and public sources, covering artificial intelligence to space technology to life saving pharmaceuticals with over \$31 million in co-investment from \$7.5 million in repayable grants.

### Financial measures

	2020/21 Actual \$000	2020/21 Budget \$000	2019/20 Actual \$000	2019/20 Budget \$000
<b>Revenue</b>				
Crown Revenue – Appropriation (Grant & Incubator Funding)	13,695	17,900	6,040	16,200
<b>Total Revenue</b>	<b>13,695</b>	<b>17,900</b>	<b>6,040</b>	<b>16,200</b>
Grant & Incubator Expenses	13,695	17,900	6,040	16,200
<b>Net surplus/(deficit)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

### Performance measures

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Number of customers that received a service from either an incubator or accelerator	296	170	204	180
Net Promoter Score from Startup customers <sup>1</sup>	+62	+60	+71	+60
First ventures for funding from the Tech Incubator Programme	Achieved	Achieved	N/A	N/A
Percentage of surveyed start ups who agree that they have gained business or commercialisation skills as a result of working with the incubator/accelerator	97%	60%	N/A	N/A

1. Appropriation measure only.

## Research & Development Loan Scheme

This appropriation is limited to funds for Callaghan Innovation to provide temporary financial assistance, by way of loans, to businesses undertaking research and development. The loans and related income and expenses are reflected in the financial statements of the Ministry of Business, Innovation and Employment, who are considered principal for these transactions. The Group receives funding for the administration of these loans, which is recognised under output class 1: Building Business Innovation.

### Performance measures

As at 30 June 2021, 455 loans had been drawn down, totalling \$148,965,000.

	2020/21 result	2020/21 performance standard	2019/20 result	2019/20 performance standard
Percentage of existing Callaghan Innovation customers provided with a decision within four weeks of their application being received	82%	80%	N/A	N/A





# Callaghan Innovation Group Financial Statements

For the year ended 30 June 2021

## Statement of Comprehensive Income and Expenses

For the year ended 30 June 2021

		2021 Actual	2021 Budget Unaudited	2020 Actual
	Notes	\$000	\$000	\$000
<b>Income</b>				
Funding from the Crown	2	104,878	116,094	96,259
Funding from the Crown – grants	2	176,089	188,800	255,367
Commercial and other revenue	2	20,744	21,800	23,983
Interest income	2	864	510	1,272
<b>Total income</b>		<b>302,575</b>	<b>327,204</b>	<b>376,881</b>
<b>Expenditure</b>				
Personnel costs	3	(63,063)	(60,141)	(56,790)
Science project and subcontract costs		(21,827)	(37,513)	(17,744)
Impairment release/(charge) of financial instruments	8	(30)	-	(68)
Other expenses	3	(35,683)	(30,995)	(29,582)
Amortisation, depreciation and impairment	10,11	(8,961)	(11,035)	(8,222)
Grant expense	4	(176,089)	(188,800)	(255,367)
<b>Total operating expenditure</b>		<b>(305,653)</b>	<b>(328,484)</b>	<b>(367,773)</b>
Share of surplus/(deficit) from associate	13	(174)	141	(27)
<b>Surplus/(deficit) for the period before taxation for continuing operations</b>		<b>(3,252)</b>	<b>(1,139)</b>	<b>9,081</b>
Income tax credit	5	128	-	74
<b>Surplus/(deficit) for the period after taxation for continuing operations</b>		<b>(3,124)</b>	<b>(1,139)</b>	<b>9,155</b>
Surplus/(deficit) from discontinued operations	14	(2,412)	-	(487)
<b>Surplus/(deficit) for the period after taxation</b>		<b>(5,536)</b>	<b>(1,139)</b>	<b>8,668</b>
<b>Other comprehensive income and expenses</b>				
Item that will be reclassified to surplus/(deficit)				
Cash flow hedges (net of tax) – continuing operations		99	-	6
Cash flow hedges (net of tax) – discontinued operations	14	(41)	-	(36)
<b>Total comprehensive income and expenses</b>		<b>(5,478)</b>	<b>(1,139)</b>	<b>8,638</b>

Explanations of major variances against budget are provided in note 25.

The 2020 Actual results, along with relevant notes, have been re-presented to separately disclose continuing from discontinued operations.

The accompanying accounting policies and notes form an integral part of these Financial Statements.

## Statement of Changes in Equity

For the year ended 30 June 2021

	Notes	Contributed capital \$000	Accumulated surplus \$000	Hedge reserve \$000	Total equity \$000
<b>GROUP</b>					
Balance as at 1 July 2019		87,595	8,377	118	96,090
Surplus for the year		-	8,668	-	8,668
<b>Other comprehensive income</b>					
Cash flow hedge reserve		-	-	(30)	(30)
<b>Total comprehensive income and expenses for the year</b>		-	8,668	(30)	8,638
<b>Other transactions</b>					
Capital contribution		9,940	-	-	9,940
<b>Balance as at 30 June 2020</b>		<b>97,535</b>	<b>17,045</b>	<b>88</b>	<b>114,668</b>
Balance as at 1 July 2020		97,535	17,045	88	114,668
Deficit for the year		-	(5,536)	-	(5,536)
<b>Other comprehensive income</b>					
Cash flow hedge reserve		-	-	58	58
<b>Total comprehensive income and expenses for the year</b>		-	(5,536)	58	(5,478)
<b>Other transactions</b>					
Capital contribution	6	3,958	-	-	3,958
<b>Balance as at 30 June 2021</b>	<b>6</b>	<b>101,493</b>	<b>11,509</b>	<b>146</b>	<b>113,148</b>
<b>GROUP BUDGET (unaudited)</b>					
Balance as at 1 July 2020		97,220	19,679	-	116,899
Deficit for the year		-	(1,139)	-	(1,139)
<b>Other comprehensive income</b>					
Cash flow hedge reserve		-	-	-	-
<b>Total comprehensive income and expenses for the year</b>		-	(1,139)	-	(1,139)
<b>Other transactions</b>					
Capital contribution		161,100	-	-	161,100
<b>Balance as at 30 June 2021</b>	<b>25</b>	<b>258,320</b>	<b>18,540</b>	<b>-</b>	<b>276,860</b>

Explanations of major variances against budget are provided in note 25.

The accompanying accounting policies and notes form an integral part of these Financial Statements.



## Statement of Financial Position

As at 30 June 2021

		2021 Actual	2021 Budget Unaudited	2020 Actual
	Notes	\$000	\$000	\$000
<b>Equity</b>				
Contributed capital		101,493	258,320	97,535
Accumulated surplus		11,509	18,540	17,045
Hedge reserve		146	-	88
<b>Total equity</b>	6	<b>113,148</b>	<b>276,860</b>	<b>114,668</b>
Represented by:				
<b>Current assets</b>				
Cash and term deposits	7	53,949	47,674	60,966
Trade and other receivables	8	8,035	6,952	8,611
Crown debtor – grants	8	75,679	27,779	108,467
Derivative financial instruments	20	216	143	149
Work in progress		655	1,091	1,151
Inventories		382	323	293
Income Tax Receivable		11	-	18
Assets classified as held for sale	14	407	-	-
<b>Total current assets</b>		<b>139,334</b>	<b>83,962</b>	<b>179,655</b>
<b>Non-current assets</b>				
Investment in associates	13	4,303	4,808	4,477
Property plant and equipment	10	54,519	69,298	57,468
Intangible assets	11	2,643	7,516	1,731
Capital work in progress	10	22,086	17,152	6,959
Loans Receivable	19	-	149,000	-
<b>Total non-current assets</b>		<b>83,551</b>	<b>247,774</b>	<b>70,635</b>
<b>Total assets</b>		<b>222,885</b>	<b>331,736</b>	<b>250,290</b>
<b>Current liabilities</b>				
Trade creditors and other payables	17	10,913	12,813	9,307
Employee benefits	15	5,369	4,721	4,768
Derivative financial instruments	20	70	-	61
Grant obligations	19	75,679	27,779	108,467
Funds received in advance	16	16,866	9,245	12,113
Liabilities directly associated with assets held for sale	14	154	-	-
<b>Total current liabilities</b>		<b>109,051</b>	<b>54,558</b>	<b>134,716</b>
<b>Non-current liabilities</b>				
Employee benefits	15	123	318	218
Deferred Tax Liability	9	560	-	688
Liabilities directly associated with assets held for sale	14	3	-	-
<b>Total non-current liabilities</b>		<b>686</b>	<b>318</b>	<b>906</b>
<b>Total liabilities</b>		<b>109,737</b>	<b>54,876</b>	<b>135,622</b>
<b>Net assets</b>		<b>113,148</b>	<b>276,860</b>	<b>114,668</b>



Pete Hodgson, Chair  
21 October 2021



Elena Trout, Director  
21 October 2021

Explanations of major variances against budget are provided in note 25.

The accompanying accounting policies and notes form an integral part of these Financial Statements.

## Statement of Cash Flows

For the year ended 30 June 2021

		2021 Actual	2021 Budget Unaudited	2020 Actual
	Notes	\$000	\$000	\$000
<b>Cash flow from operating activities</b>				
Cash was provided from:				
Receipts from the Crown operating		111,200	115,900	104,368
Receipts from the Crown – grants		208,877	188,800	267,355
Receipts from commercial customers		23,878	24,369	22,406
Interest received		864	540	1,272
		<b>344,819</b>	<b>329,609</b>	<b>395,401</b>
Cash was applied to:				
Payments to suppliers		(59,190)	(68,200)	(45,568)
Payments to employees		(63,327)	(60,500)	(56,317)
Payments to grant recipients		(208,877)	(188,800)	(267,355)
		<b>(331,394)</b>	<b>(317,500)</b>	<b>(369,240)</b>
<b>Net cash flow from operating activities</b>	18	<b>13,425</b>	<b>12,109</b>	<b>26,161</b>
<b>Cash flow from investing activities</b>				
Cash was provided from:				
Sale of property, plant and equipment		65	-	16
Term deposit maturities		64,000	-	65,000
		<b>64,065</b>	<b>-</b>	<b>65,016</b>
Cash was applied to:				
Purchase of property, plant and equipment		(19,361)	(34,262)	(16,728)
Purchase of intangible assets		(5,104)	-	(245)
Investment in term deposits		(56,320)	-	(84,723)
Issue of Loans		-	(149,000)	-
		<b>(80,785)</b>	<b>(183,262)</b>	<b>(101,696)</b>
<b>Net cash flow from investing activities</b>		<b>(16,720)</b>	<b>(183,262)</b>	<b>(36,680)</b>
<b>Cash flow from financing activities</b>				
Cash was provided from:				
Capital contribution	6	3,958	161,100	9,940
		<b>3,958</b>	<b>161,100</b>	<b>9,940</b>
<b>Net cash flow from financing activities</b>		<b>3,958</b>	<b>161,100</b>	<b>9,940</b>
<b>Net increase/(decrease) in cash and cash equivalents</b>		<b>663</b>	<b>(10,053)</b>	<b>(579)</b>
Cash and cash equivalents at the beginning of the year		3,244	57,844	3,823
<b>Cash and cash equivalents at the end of the year</b>	7	<b>3,907</b>	<b>47,791</b>	<b>3,244</b>

Explanations of major variances against budget are provided in note 25.

The accompanying accounting policies and notes form an integral part of these Financial Statements.

## Notes to the Financial Statements

For the year ended 30 June 2021

### 1. Statement of accounting policies

#### Reporting entity

Callaghan Innovation is a Crown entity as defined by the Crown Entities Act 2004 and is domiciled in New Zealand. The relevant legislation governing Callaghan Innovation's operations include the Crown Entities Act 2004 and Callaghan Innovation Act 2012.

Callaghan Innovation's parent is the New Zealand Crown. The consolidated financial statements of the Group comprise Callaghan Innovation and its controlled entities and associates.

Callaghan Innovation's primary purpose is to support business research and development, accelerate commercialisation, and empower New Zealand's innovators.

Callaghan Innovation does not operate to make a financial return.

Callaghan Innovation has designated itself as a public benefit entity for financial reporting purposes.

#### Basis of preparation

The financial statements have been prepared on a going concern basis and the accounting policies have been applied consistently throughout the year. The impacts of COVID-19 have been considered in preparing these financial statements. Further details are set out in note 26.

#### Statement of compliance

The financial statements of the Group have been prepared in accordance with the Crown Entities Act 2004, which includes the requirement to comply with generally accepted accounting practice in New Zealand (NZ GAAP). These financial statements comply with Public Sector PBE accounting standards.

#### Functional presentation currency and rounding

The functional currency of Callaghan Innovation is New Zealand dollars (NZ\$). The financial statements are presented in New Zealand dollars and all values are rounded to the nearest thousand dollars (\$000).

#### Standards issued and not yet effective and early adopted

The Crown had elected to early adopt PBE IFRS 9 Financial Instruments in preparing Financial Statements of Government (FSG). In line with the FSG, Callaghan Innovation elected to early adopt PBE IFRS 9 Financial Instruments from 1 July 2018 replacing PBE IPSAS 29 Financial Instruments: Recognition and Measurement. Under the transition options of PBE IFRS 9, Callaghan Innovation did not restate financial instrument comparatives for classification, measurement and impairment and opted to continue to apply the hedge accounting requirements of PBE IPSAS 29. Therefore, there were no changes to the classification and measurement when accounting for hedges. Assets previously classified as loans and receivables were reclassified as financial assets at amortised cost. There was no material impact to measurement on transition.

#### Summary of significant accounting policies

Where accounting policies relate to specific disclosures, they are included in the relevant notes to the financial statements. Additional policies that impact several areas of the financial statements, or do not relate to specific disclosures, are set out below.

#### Foreign currency

Transactions in foreign currencies are initially recorded in the New Zealand dollar using spot rates at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies are revalued at exchange rates at the balance sheet date, unless they are hedged in which case they are recognised at the underlying hedge rate.



## Notes to the Financial Statements (continued)

### Inventories

Inventories held for use in the provision of goods and services on a commercial basis are valued at the lower of cost and net realisable value (NRV), where NRV is the estimated selling price in the ordinary course of business less estimated costs of completion and the estimated costs necessary to make the sale. Raw materials are recognised initially at purchase cost on a first-in, first-out basis.

### Work-in-progress

Work-in-progress comprises the cost of any direct materials and labour incurred on a commercial project where the corresponding revenue has not yet been recognised (for example, a key project billing milestone has not been reached).

### Provisions

The Group recognises a provision for future expenditure of uncertain amount or timing when there is a present obligation (either legal or constructive) as a result of a past event, it is probable that expenditure will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the present value of the expenditure expected to be required to settle the obligation using a discount rate that reflects a current market assessment of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as a finance cost.

### Goods and Services Tax (GST)

All items in the financial statements are presented exclusive of GST, except for trade receivables and trade payables, which are presented on a GST inclusive basis. Where GST is not recoverable as an input tax then it is recognised as part of the related asset or expense. The net amount of GST recoverable from or payable to the Inland Revenue Department is included as part receivables or payables in the Statement of Financial Position. The net GST paid to or received from the Inland Revenue Department including the GST relating to investing or financing activities is classified as an operating cash flow in the Statement of Cash Flows. Commitments and contingencies are disclosed exclusive of GST.

## 2. Income

### Relevant accounting policies

Income is measured at the fair value of consideration received or receivable. The specific accounting policies for significant income items are explained below.

#### Income from the Crown – operational funding

Callaghan Innovation is primarily funded from the Crown. This funding is provided for the purpose of Callaghan Innovation meeting its objectives as specified in the Statement of Intent and Statement of Performance Expectations, and is recognised as revenue at the point of entitlement. The fair value of revenue from the Crown has been determined to be the equivalent to the amounts due under the relevant funding arrangements and agreements.

#### Grants (Crown income)

Grants received are recognised in the Statement of Comprehensive Income and Expenses when they become receivable unless there is an obligation in substance to return the funding if the requirements under the grant have not been met. This is generally once the obligation to pay the grant recipient has been recognised. Any grants for which the requirements have not been completed are carried as liabilities until all conditions have been fulfilled, and are recognised as income when conditions of the grant are satisfied.

The fair value of revenue from Grants Crown income is considered equivalent to the funding entitlement and is based on the NZD value at the date the funds were transferred from MBIE to Callaghan Innovation.

## Notes to the Financial Statements (continued)

### Provision of goods and services (commercial revenue)

Revenue from the sale of goods is recognised when the risk and reward of ownership have been transferred to the buyer.

Revenue from research contract services is recognised by reference to the stage of completion. The stage of completion is measured by reference to project milestones or costs incurred to date as a percentage of the total cost for each contract. Where the contract outcome cannot be measured reliably, revenue is recognised only to the extent the expenses recognised are recoverable.

### Interest

Interest income is recognised using the effective interest method.

### Royalty and licensing income

Royalty and licensing income arises from income earned from patent royalties and licensing of patents. Royalty and licensing income is recognised on an accruals basis in accordance with the substance of the relevant agreements.

### Rental revenue

Rental income for leased or sub-leased facilities is recognised on a straight line basis over the lease term.

	2021 Actual \$000	2020 Actual \$000
<b>Crown income – exchange transactions</b>		
Ministry of Business Innovation and Employment – Operational funding including Research and Development	104,878	96,259
<b>Crown income – non exchange transactions</b>		
Ministry of Business Innovation and Employment – Research and Development Grants	176,089	255,367
<b>Total Crown and other income</b>	<b>280,967</b>	<b>351,626</b>
<b>Commercial revenue and other income – exchange transactions</b>		
Commercial – domestic	8,709	8,314
Commercial – overseas	6,764	8,171
Royalty and licensing income	267	136
Property and equipment rental	2,260	1,726
Other income	2,744	5,636
Interest income	864	1,272
<b>Total commercial revenue and other income</b>	<b>21,608</b>	<b>25,255</b>
<b>Total income</b>	<b>302,575</b>	<b>376,881</b>

Callaghan Innovation (parent entity) received operational funding from the Crown for specific purposes as set out in the Output Agreement and the scope of relevant Government appropriations.

During the current financial year, Callaghan Innovation received \$1,100,000 (2019/20: \$3,600,000) of funding to address the impact of COVID-19 on external revenue sources which has been recognised in full in these financial statements.

Other income recognised in 2020 included \$3,280,000 of insurance proceeds relating to settlement of a claim for fire damage in 2018.

## Notes to the Financial Statements (continued)

### 3. Expenditure

	2021	2020
	\$000	\$000
<b>Personnel costs include:</b>		
Salary and wages	61,566	55,389
Defined contribution plan employer contributions	1,497	1,401
	<b>63,063</b>	<b>56,790</b>
<b>Severance payments</b>		
Severance payments include any consideration (monetary or non-monetary) provided to any employee in respect of the termination of their employment with Callaghan Innovation.		
Severance payments	445	310
Number of employees	14	5
<b>Other expenses include:</b>		
Premises and utility expenses	4,343	3,403
Rent and lease expenses	3,609	3,499
Repairs and maintenance	2,226	2,018
Directors' fees	293	338
Fees to PricewaterhouseCoopers		
– For auditing the financial statements	175	163
– Prior year audit fees paid in the current year	48	33
– Controls assurance services	15	14
– Prior year controls assurance services paid in the current year	-	17
Intellectual property (patents)	171	274
Loss on disposal of fixed assets	107	12
Donations	1	36
Foreign exchange loss	(1)	67

Given the nature of its business, the Group invests in Research & Development throughout the year, with the cost of this R&D being reflected in various expense categories (primarily Personnel and Science project & subcontract costs).

### 4. Grant expense

#### Relevant accounting policies

Grants are approved and administered by Callaghan Innovation for the funding of research and development activities by New Zealand business and enterprise in accordance with Ministerial guidelines.

Grant expenditure is recognised in the Statement of Comprehensive Income and Expense when the third party recipient can demonstrate they have incurred expenditure that meets the grant conditions, or when it is probable this expenditure has been incurred. An operating commitment is disclosed in the notes to the accounts for those grant contracts awarded but yet to be drawn down either in full or in part.

Repayable incubator grants for start-ups are expensed in the Statement of Comprehensive Income and Expense in the period payment is made due to the uncertainty of future repayment. Repayable grants for start-ups are classified as a contingent asset.

	2021	2020
	\$000	\$000
Grants approved for which recipients can demonstrate they have met grant conditions, or it is probable this has occurred	176,089	255,367
<b>Total grants expense</b>	<b>176,089</b>	<b>255,367</b>



## Notes to the Financial Statements (continued)

### 5. Income tax

#### Relevant accounting policies

Callaghan Innovation (parent entity) is a crown agent and is consequently exempt from paying income tax. New Zealand Food Innovation Auckland Limited and New Zealand Food Innovation (South Island) Limited, are tax paying entities.

Income tax expense is the aggregate of current period movements in relation to both current and deferred tax. Current tax is the amount of income tax payable based on the taxable surplus for the current year, plus any adjustments to income tax payable in respect of prior years. Current tax is calculated using tax rates (and tax laws) that have been enacted or substantively enacted at balance date.

	2021 \$000	2020 \$000
<b>Reconciliation of income tax</b>		
Net surplus/(deficit) before tax of taxable entities – Food Innovation Auckland Limited and Food Innovation (South Island) Limited	(310)	(450)
Tax at rate of 28%	(86)	(126)
Non assessable income	(1,175)	(1,090)
Non deductible expenses	1,261	1,216
Prior period adjustment	-	11
Deferred tax	(128)	(85)
<b>Total tax expense/(credit)</b>	<b>(128)</b>	<b>(74)</b>
<b>The taxation charge is represented by</b>		
Current tax	-	5
Deferred tax	(128)	(79)
<b>Total tax expense/(credit)</b>	<b>(128)</b>	<b>(74)</b>

The Group has unrecognised tax losses of \$11,030,000 (2020: \$11,030,000) relating to the earlier activity of a taxable subsidiary Callaghan Industrial Research Limited (CIRL, now non-trading). These tax losses are not recognised given CIRL is no longer trading and is not expected to generate taxable profits.

### 6. Equity

Capital contributions of \$3,958,000 (2020: \$9,940,000) were received during the year.

The capital appropriation funded from the Ministry of Business Innovation and Employment is used to fund the purchase and development of assets for the use of Callaghan Innovation (parent entity) and therefore has been treated as a capital contribution rather than revenue.

The hedge reserve is used to record gains or losses on foreign exchange forward contracts in a cash flow hedge. The amounts accumulated in the hedge reserve are reclassified to the Statement of Comprehensive Income and Expenses when the associated hedge transaction affects surplus or deficit.

## Notes to the Financial Statements (continued)

### 7. Cash and term deposits

	2021	2020
	\$000	\$000
Cash at bank	3,907	3,244
Term deposits	50,042	57,722
<b>Total cash and term deposits</b>	<b>53,949</b>	<b>60,966</b>

The carrying value of cash at bank and term deposits approximates their fair value.

Cash balances represent funding for future capital expenditure, and income received in advance for ongoing programmes.

### 8. Trade and other receivables

	2021	2020
	\$000	\$000
<b>Current</b>		
Debtors	5,337	3,444
Less: Provision for impairment	(142)	(150)
	<b>5,195</b>	<b>3,294</b>
Accrued income	596	3,808
Other receivables	40	34
Prepayments	2,204	1,475
<b>Total trade and other receivables</b>	<b>8,035</b>	<b>8,611</b>
Ministry of Business Innovation and Employment – grants receivable	75,679	108,467
<b>Total current Government grants receivable</b>	<b>75,679</b>	<b>108,467</b>

The carrying amount of trade receivables are equivalent to fair values.

Trade receivables includes amounts due from related parties see note 23 for details.

## Notes to the Financial Statements (continued)

### (a) Provision for impairment

At 30 June 2021 the provision for impairment of trade receivables is \$142,000 (2020: \$150,000).

The provision for impairment includes allowance for both specific impaired trade debtor balances of \$105,000 (2020: \$127,000) and an allowance for expected losses of \$37,000 (2020: \$23,000).

The expected or potential impact of COVID-19 on all material commercial debtors at balance date has been considered in determining specific impairments. This has involved extended provisions for customers in significantly exposed industries (such as Tourism), or who have evidenced challenges in settling debts.

The allowance for expected losses has been calculated based on historic loss rate over 5 years of 1.16% (2020: 0.88%).

	2021	2020
	\$000	\$000
Opening balance	150	124
Released to cover balances written off	(38)	(42)
Additional provision expensed/(credited) during the period	30	68
<b>Closing balance</b>	<b>142</b>	<b>150</b>

### (b) Past due but not impaired

At 30 June 2021 trade receivables of \$2,569,000 (2020: \$472,000) were past due but not impaired.

These relate to customers where there is no specific indication of credit risk (primarily government entities), however they will be covered in part by the general expected credit loss allowance.

The aging of past due but not impaired trade receivables is as follows:

	2021	2020
	\$000	\$000
Within 1 month	2,219	254
Within 1 to 3 months	329	106
Beyond 3 months	21	112
	<b>2,569</b>	<b>472</b>



## Notes to the Financial Statements (continued)

### 9. Deferred taxation

#### Relevant accounting policies

Deferred tax is the amount of income tax payable or recoverable in future periods in respect of temporary differences and unused tax losses. Temporary differences are differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable surplus. Deferred tax is measured at the tax rates that are expected to apply when the asset is realised or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at balance date.

The measurement of deferred tax reflects the tax consequences that would follow from the manner in which the Group expects to recover or settle the carrying amount of its assets and liabilities. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are recognised to the extent that it is probable that taxable surpluses will be available against which the deductible temporary differences or tax losses can be utilised. Current and deferred tax is recognised against the surplus or deficit for the period, except to the extent that it relates to items recognised in other comprehensive income or equity.

	2021	2020
	\$000	\$000
<b>Analysis of temporary differences</b>		
Deferred tax assets/(liabilities) arise from the following:		
Property, plant and equipment	(584)	(718)
Provisions	24	30
<b>Deferred tax asset/(liability) recognised at 30 June</b>	<b>(560)</b>	<b>(688)</b>
<b>Movements in deferred tax asset/(liability)</b>		
Balance at 1 July	(688)	(767)
Charged to income	128	79
<b>Total deferred tax asset/(liability) at 30 June</b>	<b>(560)</b>	<b>(688)</b>

### 10. Property, plant and equipment

#### Relevant accounting policies

Property, plant and equipment consists of land, freehold buildings, fittings, building auxiliary services, computer equipment, plant and scientific equipment, motor vehicles and office furniture. Property, plant and equipment are shown at cost less accumulated depreciation and impairment losses.

#### Additions

The cost of an item of property, plant and equipment is recognised as an asset only when it is probable that the future economic benefits or service potential associated with the item will flow to the Group and the cost of the item can be measured reliably.

In most instances an item of property, plant and equipment is initially recognised at its cost. Where an asset is acquired through a non exchange transaction, it is recognised at its fair value as at the date of acquisition.

Where assets are purchased outright they are recognised once control is obtained and the asset is available for use. Where assets are constructed or developed over time, relevant costs are initially captured in capital work in progress and then transferred to fixed assets and depreciated once the constructed asset is available for use.

## Notes to the Financial Statements (continued)

### Disposals

Gains and losses on disposals are determined by comparing the disposal proceeds with the carrying amounts of the assets. Gains and losses on disposals are included in the Statement of Comprehensive Income and Expenses.

### Subsequent costs

Costs incurred subsequent to initial acquisition are capitalised only when it is probable that the future economic benefits or service potential associated with the item will flow to the Group and the cost of the item can be measured reliably. The costs of day-to-day servicing of property, plant and equipment are recognised in the Statement of Comprehensive Income and Expenses.

### Depreciation

Depreciation is provided on a straight-line basis on all property, plant and equipment at rates that will write off the costs of the assets to their estimated residual values over their useful lives. The estimated range of useful lives and associated depreciation rates for major asset classes are set out in the table below. Where assets are integrated into a leased building or location, they are depreciated using the shorter of the useful life below and the remaining lease term.

	Estimated useful life	Rate
Freehold buildings	10 – 40 years (depending on age)	2.5% – 10%
Building auxiliary services	5 – 20 years	5% – 20%
Computer equipment	2 – 5 years	20% – 40%
Plant and scientific equipment	3 – 38 years	2.63% – 33%
Motor vehicles	3 – 5 years	20% – 33%
Office furniture, fittings and equipment	3 – 10 years	10% – 33%

### Impairment of property, plant, and equipment and intangible assets

The Group held both cash-generating assets and non-cash-generating assets. Assets are considered cash-generating where their primary objective is to generate a commercial return.

Property, plant, and equipment and intangible assets held at cost that have a finite useful life are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use.

If an asset's carrying amount exceeds its recoverable service amount, the asset is regarded as impaired and the carrying amount is written-down to the recoverable amount. The total impairment loss is recognised in the surplus or deficit. The reversal of an impairment loss is recognised in the surplus or deficit.

#### *Cash-generating assets*

Value in use for cash-generating assets is determined by the present value of the estimated future cash flows expected to be derived from the continuing use of the assets and from their disposal at the end of its useful life. The Group use a discount rate that reflects current market assessments of the time value of money and the risks specific to the assets.

#### *Non-cash-generating assets*

Value in use for non-cash-generating assets is determined by the present value of the asset's remaining service potential and is determined using an approach based on either a depreciated replacement cost approach, restoration cost approach, or a service units approach. The most appropriate approach used to measure value in use depends on the nature of the impairment and availability of information.

## Notes to the Financial Statements (continued)

	Land Assets \$000	Buildings Assets \$000	Plant Assets \$000	Total Actual \$000
<b>1 July 2020</b>				
Cost	3,001	42,994	47,066	93,061
Accumulated depreciation	-	(10,593)	(25,000)	(35,593)
Carrying amount	<b>3,001</b>	<b>32,401</b>	<b>22,066</b>	<b>57,468</b>
<b>For the year ended 30 June 2021</b>				
Carrying amount at 1 July 2020	3,001	32,401	22,066	57,468
Additions	-	2,620	4,974	7,594
Disposals	-	-	(159)	(159)
Impairment of assets held for sale at balance date	-	-	(1,406)	(1,406)
Depreciation on assets held for sale at balance date	-	-	(415)	(415)
Depreciation for continuing operations at balance date	-	(3,025)	(5,134)	(8,159)
Transfer net book value of assets held for sale at year end to current assets	-	-	(404)	(404)
<b>Carrying amount at 30 June 2021</b>	<b>3,001</b>	<b>31,996</b>	<b>19,522</b>	<b>54,519</b>
Cost	3,001	45,614	47,343	95,958
Accumulated depreciation	-	(13,618)	(27,821)	(41,439)
<b>Carrying amount</b>	<b>3,001</b>	<b>31,996</b>	<b>19,522</b>	<b>54,519</b>
<b>1 July 2019</b>				
Cost	3,001	30,955	42,997	76,953
Accumulated depreciation	-	(9,677)	(19,358)	(29,035)
Carrying amount	<b>3,001</b>	<b>21,278</b>	<b>23,639</b>	<b>47,918</b>
<b>For the year ended 30 June 2020</b>				
Carrying amount at 1 July 2019	3,001	21,278	23,639	47,918
Additions	-	13,182	4,240	17,422
Disposals	-	-	(32)	(32)
Depreciation on assets held for sale at balance date	-	-	(418)	(418)
Depreciation for continuing operations at balance date	-	(2,059)	(5,363)	(7,422)
<b>Carrying amount at 30 June 2020</b>	<b>3,001</b>	<b>32,401</b>	<b>22,066</b>	<b>57,468</b>
Cost	3,001	42,994	47,066	93,061
Accumulated depreciation	-	(10,593)	(25,000)	(35,593)
<b>Carrying amount</b>	<b>3,001</b>	<b>32,401</b>	<b>22,066</b>	<b>57,468</b>
			<b>2021</b>	<b>2020</b>
			<b>\$000</b>	<b>\$000</b>
Capital work in progress			22,086	6,959

The majority of assets under capital work in progress are buildings (\$13,438,000), internal software development projects (\$3,461,000) and specialised equipment (\$5,187,000) (2020: buildings \$3,262,000, specialised equipment \$3,697,000).



## Notes to the Financial Statements (continued)

### Insurable values of fixed assets

The Group has established, maintains and regularly reviews comprehensive cover for business insurance. As part of this cover, it insures its fixed assets at either demolition, indemnity or replacement values. In line with other businesses in the Wellington region, the Group faces higher rates of exclusions on the fixed asset replacement policies. The Group has total insurable assets of \$345 million (2020: \$285 million) with an earthquake loss limit of \$115 million (2020 \$115 million). The earthquake insurance deductible is \$10 million (2020: \$10 million).

## 11. Intangible assets

### Relevant accounting policies

#### Research and development costs

Research costs are expensed as incurred.

Development expenditure is capitalised when its future recoverability can reasonably be regarded as assured. Following initial recognition, it is carried at cost less any accumulated amortisation and impairment losses.

Any capitalised development costs are amortised over the period the related asset is expected to provide future economic benefit. Amortisation starts once the underlying asset being developed is available for use.

The amortisation period and amortisation method for development costs are reviewed at each financial year end. If the useful life or method of consumption is different from that in the previous assessment, changes are made accordingly. The carrying value of any capitalised development costs is reviewed annually for indicators of impairment.

#### Computer software

Acquired computer software is capitalised on the basis of the costs incurred to acquire and gain the right to use the specific software.

Where software is acquired or developed under a Software as a Service model, it is only capitalised where all relevant definition and recognition criteria are met and in particular the Group has control over the asset being recognised. This will typically be where there is highly specialised customisation or configuration unique to the Group, and the Group has the ability to control its use over the expected useful life.

Computer software assets are amortised over their estimated useful lives (between three and five years).

The costs of maintaining computer software are expensed as incurred.

#### Patents

Costs associated with the registration of patents are expensed immediately due to the uncertainty of deriving economic benefits from the commercial use of the patents.

## Notes to the Financial Statements (continued)

	Acquired software	Internally generated software	Total
	\$000	\$000	\$000
<b>Balance at 1 July 2020</b>			
Cost	4,480	-	4,480
Accumulated amortisation	(2,749)	-	(2,749)
Opening carrying amount	<b>1,731</b>	-	<b>1,731</b>
<b>For the year ended 30 June 2021</b>			
Additions	44	1,599	1,643
Disposals	-	-	-
Impairment of assets held for sale at balance date	(9)	-	(9)
Amortisation on assets held for sale at balance date	(4)	-	(4)
Amortisation charge for continuing operations at balance date	(714)	(1)	(715)
Transfer net book value of assets held for sale at year end to current assets	(3)	-	(3)
<b>Balance at 30 June 2021</b>			
Cost	4,453	1,599	6,052
Accumulated amortisation	(3,408)	(1)	(3,409)
Closing carrying amount	<b>1,045</b>	<b>1,598</b>	<b>2,643</b>
<b>Balance at 1 July 2019</b>			
Cost	4,286	-	4,286
Accumulated amortisation	(1,989)	-	(1,989)
Opening carrying amount	<b>2,297</b>	-	<b>2,297</b>
<b>For the year ended 30 June 2020</b>			
Additions	245	-	245
Disposals	(1)	-	(1)
Amortisation on assets held for sale at balance date	(10)	-	(10)
Amortisation charge for continuing operations at balance date	(800)	-	(800)
<b>Balance at 30 June 2020</b>			
Cost	4,480	-	4,480
Accumulated amortisation	(2,749)	-	(2,749)
Closing carrying amount	<b>1,731</b>	-	<b>1,731</b>

## Notes to the Financial Statements (continued)

### 12. Investment in controlled entities

#### Relevant accounting policies

##### Basis of consolidation

The consolidated financial statements combine the financial statements of Callaghan Innovation its controlled entities and associates as at 30 June 2021 ('the Group').

Controlled entities are those entities over which the Group has the power to govern the financial and operating policies, generally accompanying a shareholding of more than one half of the voting rights. The financial statements of controlled entities are prepared for the same reporting period as Callaghan Innovation using consistent accounting policies.

All inter-company balances and transactions, including unrealised surplus and deficit arising from intra-Group transactions, have been eliminated in full.

Where there is loss of control of a controlled entity, the consolidated financial statements include the results for the part of the reporting year during which Callaghan Innovation has control. The purchase method is used to account for the acquisition of controlled entities by the Group.

The cost of an acquisition is measured at fair value of the assets given and liabilities incurred at the date of exchange. Identifiable assets and liabilities assumed in a business combination are measured initially at their fair value at the acquisition date.

The Parent's investment in controlled entities comprises shares at cost. Controlled entities comprise:

Name of entity	Principal activities	Interest held by the Group 2021	Interest held by the Group 2020
<b>Non trading controlled entities</b>			
Callaghan Innovation Research Limited	Non trading	100%	100%
Glycosyn Technologies Limited	Non trading – name protection	100%	100%
KiwiStar Optics Limited	Non trading – name protection	100%	100%
New Zealand Food Innovation (South Island) Limited	Food innovation company	100%	100%
New Zealand Food Innovation Auckland Limited	Food innovation company	100%	100%

All controlled entities have 30 June balance dates and are incorporated in New Zealand.



## Notes to the Financial Statements (continued)

### 13. Investment in associates

#### Relevant accounting policies

Associates are those entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Group investments in associates are accounted for using the equity method.

The financial statements of the associate are used by the Group to apply the equity method. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Group.

Under the equity method of accounting interests in associates are initially recognised at cost and adjusted to recognise the Group's share of the post-acquisition surpluses or deficits and movements in other comprehensive revenue. When the Group's share of losses in an associate equals or exceeds its interests in the associate (which includes any long term interests that, in substance, form part of the Group's net investment in the associate), the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associates.

#### Impairment in associates

The Group periodically reviews the fair value of its investment in its associate. If the carrying value of the Group's investment exceeds its share of the associate's net assets, an impairment is recognised in the Statement of Comprehensive Income and Expenses.

#### Details of associates

Associates comprise the following:

Name of entity	Principal Activities	2021	2020
New Zealand Food Innovation (Waikato) Limited	Food innovation company	30%	30%

#### Investment in associates

The cost of Callaghan Innovation's investment in New Zealand Food Innovation (Waikato) Limited at 30 June 2021 is \$4,200,000 (2020: \$4,200,000), comprising share capital of \$3,000,000 and a one off gain of \$1,200,000 in 2018 following the majority shareholders contribution of additional capital.

The Share of surplus/(deficit) from the associates is as follows:

Name of entity	Type of entity	2021 \$000	2020 \$000
New Zealand Food Innovation (Waikato) Limited – current year	2021: Associate (2020: Associate)	9	(27)
New Zealand Food Innovation (Waikato) Limited – prior periods	2021: Associate (2020: Associate)	(183)	-
		(174)	(27)

## Notes to the Financial Statements (continued)

New Zealand Food Innovation (Waikato) Limited	2021	2020
	\$000	\$000
Current assets	1,473	1,481
Non current assets	23,064	23,565
Current liabilities	(828)	(1,199)
Non current liabilities	(9,780)	(9,941)
Net assets	13,929	13,906
Total income	8,107	8,194
Total expenditure	(8,078)	(8,285)
Net surplus/(deficit)	29	(91)
<b>Results of the associate</b>		
Share of surplus/(deficit)	9	(27)
<b>Interest in associate</b>		
Carrying amount at beginning of year	4,477	4,504
Share of surplus/(deficit) – current year	9	(27)
Share of surplus/(deficit) – prior periods	(183)	-
<b>Carrying value at the end of the year</b>	<b>4,303</b>	<b>4,477</b>

## 14. Assets held for sale

### Relevant accounting policies

Non-current assets held for sale are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. Non-current assets held for sale are measured at the lower of their carrying amount and fair value less costs to sell.

Any impairment losses for write-downs of non-current assets held for sale are recognised in the surplus or deficit.

Any increases in fair value (less costs to sell) are recognised up to the level of any impairment losses that have been previously recognised.

Non-current assets held for sale (including those that are part of a disposal group) are not depreciated or amortised while they are classified as held for sale.

### Kiwistar assets held for sale at balance date

On 25 March 2021, the Board resolved to sell the Kiwistar business (a business unit within the Group specialising in the manufacture of specialist optical equipment). Negotiations with the intended purchaser, and the subsequent sale of the assets and related liabilities, concluded on 6 September 2021 however these negotiations were sufficiently progressed at 30 June 2021 to treat the business as held for sale at balance date (key sale terms and sale scope were agreed).

The Kiwistar business has been reported as a discontinued operation within the Statement of Comprehensive Income and Expense, and the net financial performance separately disclosed in both the current and comparative financial years.

The assets and liabilities which will be included in the sale, have been classified as held for sale and are presented separately in the statement of financial position as at balance date.

The related assets and liabilities included within the sale have been impaired by \$1.4m to \$250,000 in the current financial year, reflecting the agreed sale price of the net assets and liabilities.

## Notes to the Financial Statements (continued)

Work in progress has not been classified as held for sale, as the Group will complete, deliver and invoice all remaining contractual obligations to which it relates.

Information relating to the financial performance and cash flow for Kiwistar for the current and previous financial year, and the assets and liabilities classified as held for sale at balance date, are set out below.

	2020/21	2019/20
	\$000	\$000
<b>Surplus/(deficit) from discontinued operations</b>		
Revenue	1,407	1,765
Expenses	(2,404)	(2,253)
Surplus/(deficit)	(997)	(487)
Gain/(loss) on remeasurement of assets and liabilities held for sale	(1,415)	-
<b>Net surplus/(deficit)</b>	<b>(2,412)</b>	<b>(487)</b>
<b>Other comprehensive income and expenses</b>		
Cash flow hedges (net of tax)	(41)	(36)
<b>Total comprehensive income and expenses</b>	<b>(2,453)</b>	<b>(523)</b>
<b>Cashflow from discontinued operations</b>		
<b>Operating</b>		
Cash was provided from	1,407	1,765
Cash was applied to	(1,984)	(1,824)
<b>Net cash flow from operating activities</b>	<b>(577)</b>	<b>(59)</b>
<b>Investing</b>		
Cash was applied to	(51)	(85)
<b>Net cash flow from investing activities</b>	<b>(51)</b>	<b>(85)</b>
<b>Net increase/(decrease) in cash attributable to Kiwistar</b>	<b>(628)</b>	<b>(144)</b>
<b>At 30 June 2021</b>		<b>\$000</b>
<b>Assets classified as held for sale</b>		
Property, plant and equipment		404
Intangible assets		3
<b>Total current assets</b>		<b>407</b>
<b>Liabilities directly associated with assets classified as held for sale</b>		
<b>Current Liabilities</b>		
Employee benefit obligations		(154)
<b>Total current liabilities</b>		<b>(154)</b>
<b>Non-current Liabilities</b>		
Employee benefit obligations		(3)
<b>Total non-current liabilities</b>		<b>(3)</b>
<b>Net assets</b>		<b>250</b>



## Notes to the Financial Statements (continued)

### 15. Employee benefits

#### Relevant accounting policies

##### Short-term employee entitlements

Employee entitlements that the Group expects to be settled within 12 months of balance date are measured at the undiscounted amount expected to be paid based on accrued entitlements at current rates of pay. These include salaries and wages accrued up to balance date, annual leave earned but not yet taken at balance date, retirement and long service leave entitlements expected to be settled within 12 months.

##### Long-term employee entitlements

Entitlements that are payable beyond 12 months, such as long service leave and retirement leave, have been calculated on an actuarial basis.

The calculations are based on:

- Likely future entitlements accruing to staff, based on years of service, years to entitlement, the likelihood that staff will reach the point of entitlement and contractual entitlements information.
- The present value of estimated future cash flows. The discount rate is based on risk-free discount rates published by the New Zealand Treasury an estimate of the average increase in remuneration for employees over the discount period is included in the calculation.

##### Superannuation schemes

Obligations for contributions to KiwiSaver and the Government Superannuation Fund are accounted for as a defined contribution superannuation scheme and are recognised as an expense in the Statement of Comprehensive Income and Expense as incurred.

##### Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date or when an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits at the earlier of the following dates (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the Group recognises a provision for costs for a restructuring that involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the end of the reporting period are discounted to present value.

	2021	2020
	\$000	\$000
<b>Current</b>		
Employee entitlements	1,387	1,081
Long service and retiring leave	82	125
Annual leave	3,900	3,562
<b>Total current employee benefits</b>	<b>5,369</b>	<b>4,768</b>
<b>Non current</b>		
Long service and retiring leave	123	218

The retiring leave provision was calculated based on risk-free discount rates published by the New Zealand Treasury.

The risk free discount rates range from 0.38% in 2021 to 3.29% for years to 2033 (2020: 0.22% in 2020 to 1.63% for years to 2036). The inflation factor is based on the expected long term increase in remuneration for employees currently forecast at 3.08% (2020: 2.72%).

## Notes to the Financial Statements (continued)

### 16. Funds received in advance

#### Relevant accounting policies

Any income or funds received in advance of the corresponding obligations being satisfied are carried as liabilities, until those obligations have been fulfilled.

	2021	2020
	\$000	\$000
<b>Payable under exchange transactions</b>		
Government income received in advance	11,460	8,390
Commercial revenue in advance	1,498	1,052
<b>Total payable under exchange transactions</b>	<b>12,958</b>	<b>9,442</b>
<b>Payable under non-exchange transactions</b>		
Government funding received in advance as agent	3,908	2,671
<b>Total payable under non-exchange transactions</b>	<b>3,908</b>	<b>2,671</b>
<b>Total funds received in advance</b>	<b>16,866</b>	<b>12,113</b>

Funds received in advance represent funding received from the government and other customers for project work not completed at 30 June, and funding held on behalf of third parties for agency activities.

### 17. Trade and other payables

	2021	2020
	\$000	\$000
<b>Payables under exchange transactions</b>		
Trade creditors	4,741	3,484
Other payables	6,461	4,370
<b>Total payables under exchange transactions</b>	<b>11,202</b>	<b>7,854</b>
<b>Payables under non-exchange transactions</b>		
Goods and services tax (GST) (receivable)/payable	(289)	1,453
<b>Total payables under non-exchange transactions</b>	<b>(289)</b>	<b>1,453</b>
<b>Total trade and other payables</b>	<b>10,913</b>	<b>9,307</b>

The carrying amounts of the above items are equivalent to the fair values.

Trade payables includes amounts due to related parties (see note 23 for details).

## Notes to the Financial Statements (continued)

### 18. Reconciliation of surplus with cash flow from operating activities

	2021	2020
	\$000	\$000
Net surplus/(deficit) for the period	(5,536)	8,668
<b>Add/(less) non-cash items:</b>		
Amortisation, depreciation and impairment	10,795	8,718
Share of (surplus)/deficit from associates	174	27
Loss on sale of fixed assets	107	12
Proceeds on sale of fixed assets classified as investing activity	-	16
<b>Add/(less) movements in working capital:</b>		
Trade and other receivables	33,371	8,384
Inventory	(89)	30
Work in progress	496	376
Funds received in advance	4,753	11,124
Employee benefits	663	1,126
Trade and other payables	(31,309)	(12,320)
<b>Net cashflows from operating activities</b>	<b>13,425</b>	<b>26,161</b>

### 19. Critical accounting estimates and judgements

#### Critical accounting estimates and assumptions

The Group makes estimates and assumptions concerning the future. Estimates and adjustments are continually evaluated and are based on historical experience and other factors including expectations of future events that are believed to be reasonable under the circumstances.

#### (a) Fair value of long service and retiring leave

The long service and retiring leave liability is determined by use of estimates of retiring age, probability of meeting retirement criteria and discounting future estimated payments. The liability at 30 June 2021 of \$205,000 (2020: \$343,000) was calculated internally using a discounted cash flow model.

#### (b) Grant obligations and debtor

At balance date, for each different grant type, an assessment is made of the probability and quantum of a grant recipient having incurred qualifying expenditure for which a claim has not yet been received. This assessment is based on historic data and customer forecasts.

Based upon this assessment an accrual for grants obligations is made and a receivable is recognised in the financial statements of \$75,679,000 (2020: \$108,467,000). Payments against the 30 June 2021 accrual are expected to be made during the 2021/22 financial year.

	2021	2020
	\$000	\$000
<b>Payable and Receivable under non-exchange transactions</b>		
Grant obligations and debtor	75,679	108,467
<b>Total grant obligations and debtor</b>	<b>75,679</b>	<b>108,467</b>



## Notes to the Financial Statements (continued)

### (c) Commercial revenue

Some commercial revenue for the Group is project based. Revenue is recognised on an accruals basis in the Statement of Comprehensive Income and Expense in line with accounting policies. Managers review projects and provide an assessment of project status and progress to inform the proportion of revenue that can be recognised.

Based upon this assessment revenue in advance of \$1,498,000 (2020: \$1,052,000) and accrued revenue of \$407,000 (2020: \$282,000) have been recognised at balance date.

### Critical judgement in applying the Group's accounting policy

#### (a) Agent vs principal in crown pass through funding

The Group receives funding for grants and the National Science Challenge (NSC). The Group's view is that it is acting as principal in these transactions given it is the Group's responsibility to allocate the funding, manage the contracts and deal directly with the funding recipients.

Conversely, the Group also administers the New Zealand Product Accelerator (NZPA) and Bioresource Processing Alliance (BPA) however in this case the funding is passed through to, or held on behalf of, another entity that is responsible for allocating the funding. While the Group has an administration and (in the case of the BPA) a contracting role, the responsibility for fund allocation decisions and programme management and governance sits with another entity. As a result, the Group is considered to be acting as an agent in these transactions and the gross income and expenses are not recognised.

This year, the Group has also received funding for the new Industry 4.0 programme. While significant portions of this funding are paid out to industry partners responsible for delivering a mobile showcase and a series of demonstration sites, this work is performed under the oversight and control of Callaghan Innovation. As a result, the Group is considered to be principal in these transactions and the gross income and expenses are recognised in the statement of comprehensive income and expenses.

#### (b) Agent vs principal for the R&D Loan Scheme

The Group administers a loan scheme to provide support to R&D performing companies. Under the Scheme, Callaghan Innovation can issue loans to companies to enable them to maintain investment in R&D, subject to settings established by the Ministry of Business, Innovation and Employment (MBIE). These settings include an interest rate of 3% and a maximum loan term of 10 years. Any principal or interest recovered from customers through the Scheme must be returned to MBIE, who bear all the financial risks and rewards of the loan portfolio. Given the broad decision making powers and financial exposure sitting with MBIE, and Callaghan Innovation's explicit administrative role, management has concluded the Group is acting as MBIE's agent in issuing the loans (although this conclusion was finalised after setting the 2020/21 budget which assumed these loans would be recognised by the Group). As a result, the loans and any resulting surplus/(deficit) impacts – such as fair value changes, expected credit losses or interest income – are not recognised in the Group's financial statements. If Callaghan Innovation does temporarily hold any funds through either the issuance of loans or return of interest or principal, it is recognised as cash, along with an equal and offsetting liability to MBIE.

During the year, Callaghan Innovation issued 455 loans totalling \$148.965m of which \$2.121m had been repaid by 30 June 2021.

## Notes to the Financial Statements (continued)

### 20. Financial instruments by category

#### Relevant accounting policies

##### Financial assets

###### *Classification:*

The Group classifies its financial assets in the following measurement categories:

- those to be measured subsequently at fair value through surplus or deficit, and
- those to be measured at amortised cost.

The Group classifies its financial assets as at amortised cost only if both the following criteria are met:

- The asset is held within a business model whose objective is to collect the contractual cash flows, and
- The contractual terms give rise to cash flows that are solely payments of principal and interest.

All other financial assets not meeting the criteria above are measured at fair value through surplus or deficit. Financial assets may also be designated as fair value through surplus or deficit if doing so eliminates or significantly reduces an accounting mismatch.

All financial liabilities are measured at amortised cost or classified as derivatives used for hedging and measured at fair value.

###### *Measurement:*

At initial recognition, the Group measures a financial instrument at its fair value plus, in the case of a financial asset not at fair value through surplus or deficit, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through surplus or deficit are expensed in surplus or deficit.

Subsequent measurement of financial instruments at amortised cost are measured at amortised cost using effective interest rate method. Any gain or loss arising on derecognition is recognised directly in comprehensive income and expenses and presented in other gains/(losses) together with foreign exchange gains and losses.

Impairment losses are presented as separate line item in the statement of comprehensive income and expenses.

For assets that are held at fair value through surplus or deficit, gains and losses are recognised in comprehensive income and expenses and presented net within other gains/(losses) in the period in which it arises, unless included in a hedge relationship. Gains and losses from interest, foreign exchange and other fair value movements are separately reported in the statement of comprehensive income and expenses. Transaction costs are expensed as they are incurred.

##### Trade and other receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 30 days and therefore are all classified as current. Trade receivables are recognised initially at the amount of consideration that is unconditional. The Group holds the trade receivables with the objective to collect the contractual cash flows and therefore measures them subsequently at amortised cost.

##### Cash and cash equivalents

Cash and cash equivalents are recognised at amortised cost. Cash and cash equivalents include cash on hand, bank accounts and deposits with an original maturity of no more than three months. They are reported initially and subsequently at the amount invested.

##### Term deposits

Term deposits are cash deposits with banks which are not classified as cash and cash equivalents given the original maturity of the deposit.

## Notes to the Financial Statements (continued)

### Trade and other payables

Trade and other payables are recognised at amortised cost. Carrying value is typically adopted as a reasonable approximation to amortised cost given they are generally settled within two months.

### Allowances for expected losses

An expected credit loss model is used to recognise and calculate impairment losses for financial assets subsequently measured at amortised cost.

The simplified approach to providing for expected credit losses as prescribed by PBE IFRS 9 is applied to trade and other receivables. The simplified approach involves making a provision at an amount equal to the lifetime expected credit loss. The provision for impairment for trade and other receivables that are individually significant is determined on an individual basis. Those deemed not to be individually significant are assessed on a portfolio basis as they possess shared credit risk characteristics based on the number of days overdue, and taking into account the historical loss experience and incorporating any external and future information.

### Derivative financial instruments

Derivatives are initially recognised at fair value on the trade dates that derivative contracts are entered into and are subsequently re-measured to their fair value. The method of recognising a resulting gain or loss depends on whether the derivative is designated as a hedging instrument and the nature of the item being hedged. The Group designates certain derivatives as hedges of highly probable forecast transactions (cash flow hedges).

At the inception of a transaction, the Group documents the relationship between hedging instruments and hedged items as well as its risk management objective and strategy for undertaking various hedge transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis whether the derivatives that are used in hedging transactions have been and will continue to be highly effective in offsetting changes in cash flows of hedged items.

### Cash flow hedge

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in equity in the hedge reserve. The gain or loss relating to the ineffective portion is recognised immediately in the Statement of Comprehensive Income and Expenses. Amounts accumulated in equity are recycled to the Statement of Comprehensive Income and Expenses in the periods when the hedged items will affect surplus or deficit (for instance when a forecast sale that is hedged takes place). However, when a forecast transaction that is hedged results in the recognition of a non-financial asset (for example inventory) or a non-financial liability, the gains or losses previously deferred in equity are transferred from equity and included in the measurement of the initial cost or carrying amount of the asset or liability. When a hedging instrument expires or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the Statement of Comprehensive Income and Expenses. When a forecast transaction is no longer expected to occur the cumulative gain or loss that was reported in equity is immediately transferred to the Statement of Comprehensive Income and Expenses.

### Derivatives that do not qualify for hedge accounting

Certain derivative instruments may not qualify for hedge accounting, or hedge accounting has not been adopted. Changes in the fair value of those derivatives that don't qualify for hedge accounting are recognised immediately in surplus or deficit in the Statement of Comprehensive Income and Expenses.

## Notes to the Financial Statements (continued)

As at 30 June 2021	Financial assets at amortised cost \$000	Derivatives used for hedging at fair value \$000
<b>Financial assets</b>		
Cash and term deposits	53,949	-
Crown debtor – grants	75,679	-
Derivative financial instruments	-	216
Debtors and other receivables	5,831	-
	<b>135,459</b>	<b>216</b>
	Financial liabilities at amortised cost \$000	Derivatives used for hedging at fair value \$000
<b>Financial Liabilities</b>		
Creditors and other payables	11,202	-
Grant obligations	75,679	-
Employee benefits	5,492	-
Derivative financial instruments	-	70
	<b>92,373</b>	<b>70</b>
<b>As at 30 June 2020</b>		
	Financial assets at amortised cost \$000	Derivatives used for hedging at fair value \$000
<b>Financial assets</b>		
Cash and term deposits	60,966	-
Crown debtor – grants	108,467	-
Derivative financial instruments	-	149
Debtors and other receivables	7,136	-
	<b>176,569</b>	<b>149</b>
	Financial liabilities at amortised cost \$000	Derivatives used for hedging at fair value \$000
<b>Financial Liabilities</b>		
Creditors and other payables	9,307	-
Grant obligations	108,467	-
Employee benefits	4,643	-
Derivative financial instruments	-	61
	<b>122,417</b>	<b>61</b>

The only financial instruments held at fair value are foreign exchange contracts. At year end these comprised assets of \$216,000 and liabilities of \$70,000 (2020: \$149,000 asset, \$61,000 liability). These are level 2 instruments in the fair value hierarchy and have been valued using balance date financial institution valuations.



## Notes to the Financial Statements (continued)

### 21. Financial risk management

The Group's activities expose it to a variety of financial risks including market (currency and interest rate), credit and liquidity risk.

The Group's overall risk management programme seeks to minimise potential adverse effects of these risks on the Group's financial performance.

The Group uses derivative financial instruments to hedge certain risk exposures. Risk management is carried out under policies approved by the board of directors. Management identifies, evaluates and hedges financial risks in consultation with operational units.

#### (a) Market risk

##### *Foreign exchange risk*

Callaghan Innovation is exposed to foreign exchange risk through: commercial revenue streams denominated in foreign currencies; operational costs requiring payment in foreign currencies; and Capital expenditure requiring payment in foreign currencies.

The Group's primary objective in managing foreign currency risk is to provide certainty of New Zealand dollar net cash flows. To manage foreign exchange risk the Group use forward exchange contracts to hedge anticipated cash flows for all committed foreign currency sale and purchase transactions greater than NZ\$50,000.

Details of forward foreign exchange contracts outstanding at balance date are set out below:

Outstanding contracts	2021	2021	2020	2020
	Currency	Contract value	Currency	Contract value
	(thousands)	NZD\$000	(thousands)	NZD\$000
<b>Bank buys</b>				
United States dollar	2,499	3,718	2,135	3,365
Australian dollar	370	398	-	-
Euro	690	1,231	1,186	2,113
<b>Bank sells</b>				
United States dollar	450	685	764	1,163
Australian dollar	187	201	187	200
Euro	128	234	128	234

All forward foreign exchange contracts are due for settlement within 12 months of balance date.

Any reasonably possible changes in foreign exchange rates would not have a material impact on the financial performance or position of the Group.

#### (b) Interest rate risk

Callaghan Innovation is exposed to interest rate risk through the interest income earned on cash and term deposits. Any reasonably possible changes in interest rates would not have a material impact on the interest income earned on short term deposits.

## Notes to the Financial Statements (continued)

### (c) Credit risk

Financial instruments which potentially subject the Group to credit risk principally consist of bank deposits, trade and other receivables, and foreign exchange contracts.

Credit risk is minimised as a result of several key controls:

- All Treasury counterparties (for hedge transactions or deposits) must be approved by the Board
- All counterparties must have a minimum long term credit rating by Standard & Poor's of A-, or equivalent from another internationally recognised rating agency, unless specifically approved by the Board.
- No more than 75% of total investment funds available can be placed with a single counterparty.
- All investments must be made with New Zealand registered trading banks.

There are no significant concentrations of credit risk other than the receivable from MBIE in respect of grants.

### (d) Liquidity risk

Liquidity risk is the risk that the Group cannot meet its cash based obligations in an orderly manner as they arise.

The Group maintains sufficient liquid bank deposits to conservatively manage its cashflow requirements without the requirement for bank credit facilities.

The table below analyses Callaghan Innovation's financial assets, liabilities and net settled derivative financial liabilities that will be settled, based on the remaining period at balance date to the contractual or expected maturity date. The amounts disclosed are the contractual, undiscounted cash flows.

	2021 Less than one year \$000	2020 Less than one year \$000
Cash and term deposits	53,949	60,966
Trade and other receivables	8,035	8,611
Crown debtor – grants	75,679	108,467
Trade and other payables	(10,913)	(9,307)
Grant obligations	(75,679)	(108,467)
Employee benefits	(5,369)	(4,768)
	2021 More than one year \$000	2020 More than one year \$000
Employee benefits	(123)	(218)

The Group's derivative financial instruments will be settled on a gross basis within 12 months of balance date and are set out below. The amounts disclosed in the table are the contractual undiscounted cash flows.

	2021 Less than one year \$000	2020 Less than one year \$000
<b>Forward foreign exchange contracts – cash flow hedges</b>		
Inflow	6,410	7,088
Outflow	(6,264)	(7,001)

The Group holds no forward foreign exchange contracts for trading purposes.

## Notes to the Financial Statements (continued)

### 22. Capital risk management

The Group capital comprises capital invested by the Crown and accumulated funds. Equity is represented by net assets.

The Group manages its net assets to ensure that the entity achieves its objectives and purpose while remaining a going concern.

There has been no material change in the management of capital during the year.

### 23. Related party disclosures

#### General

Callaghan Innovation is a wholly owned entity of the Crown.

Transactions with other government agencies (for example, Government departments and Crown entities) are not disclosed as related party transactions when they are consistent with the normal operating arrangements between government agencies and undertaken on the normal terms and conditions for such transactions.

#### Transactions with associates

	2021	2020
	\$000	\$000
<b>Sales of services and general recoveries</b>		
- New Zealand Food Innovation (Waikato) Limited	43	31
	<b>43</b>	<b>31</b>
<b>Operational and project funding</b>		
- New Zealand Food Innovation (Waikato) Limited	80	80
	<b>80</b>	<b>80</b>

All trading transactions with the above entities are on a commercial basis.

#### Key management personnel costs

	2021	2020
	\$000	\$000
<b>Board members</b>		
Remuneration	293	338
<b>Leadership team</b>		
Remuneration	3,174	3,347
	<b>3,467</b>	<b>3,685</b>
Total full time equivalent personnel	11.6	12.7

## Notes to the Financial Statements (continued)

### 24. Commitments and contingencies

#### Capital commitments

	2021	2020
	\$000	\$000
Commitments for approved capital expenditure not yet spent:		
Buildings	19,910	5,333
Plant	969	5,257
Software	2,561	-
<b>Total capital commitments</b>	<b>23,440</b>	<b>10,590</b>

#### Relevant accounting policies

##### *Finance leases – lessor*

Leases that transfer substantially all the risks and rewards incidental to the ownership of an asset, whether or not title is eventually transferred, are classified as finance leases. When assets are leased out under a finance lease, the present value of the lease payments is recognised as a receivable. The difference between the gross receivable and the present value of the receivable is recognised as unearned finance income.

##### *Operating leases – lessor*

Leases that do not transfer substantially all the risks and rewards incidental to the ownership of an asset are classified as operating leases. When assets are leased out under an operating lease, the asset is included in the Statement of Financial Position based on the nature of the asset. Lease income on operating leases is recognised over the term of the lease on a straight-line basis.

##### *Operating leases – lessee*

Leases that do not transfer substantially all the risks and rewards incidental to ownership of an asset to the Group are classified as operating leases. Payments under operating leases are recognised as an expense on a straight line basis over the lease term.

#### Operating commitments

Commitments for non-cancellable operating leases, grant contractual obligations and other operating commitments:

	2021	2020
	\$000	\$000
Not later than one year	2,840	2,689
Later than one year and not later than five years	8,992	9,128
Later than five years	7,560	9,440
<b>Total operating lease commitments</b>	<b>19,392</b>	<b>21,257</b>

The Group leases properties and vehicles in the normal course of its business. The significant leases held by the Group are for premises, which have a non-cancellable leasing period ranging from 2 to 13 years.

The Group's non-cancellable operating lease have varying terms, escalation clauses, and renewal rights.

There are no restrictions placed on the Group by any of its leasing arrangements.

Grant commitments	2021	2020
	\$000	\$000
Grant commitments for those grant contracts awarded but yet to be drawn down or accrued	39,235	247,325



## Notes to the Financial Statements (continued)

The prior year commitments include potential payments to grant recipients under the Growth Grant Scheme, which closed 31 March 2021 following the introduction of the Research and Development Tax Incentive. Eligible expenditure under this Scheme could be claimed up to 30 September 2021, and all claims received have been reflected in the year end accrual as at 30 June 2021.

Operating leases rental receivables – Group company as lessor	2021 \$000	2020 \$000
No later than 1 year	1,092	957
Later than 1 year and no later than 5 years	1,543	1,311
Later than 5 years	-	-
	<b>2,635</b>	<b>2,268</b>

The Group leases property under various agreements.

### Contingencies

#### *Contingent liabilities*

There were two trade performance facilities in place at 30 June 2021 totalling \$739,000 (2020: \$664,000).

Contingent assets	2021 \$000	2020 \$000
Repayable incubator grants	20,647	18,960

Incubator grants are repayable once the grant recipients business produces commercial revenue. A percentage of the commercial revenue generated is payable to Callaghan Innovation as repayment of the outstanding grant each year until the grant is repaid. These grants commenced in 2014/15 and given the long term nature of the investments being made, there is limited information available to date that would allow the Group to assess the timing, likelihood and quantum of any future repayments.

Discussions are ongoing with a supplier involved in the design of the new Measurements Standard Laboratory, related to the remediation of aspects of the building's performance that are not meeting Callaghan Innovation's requirements. It is possible they will make a contribution to the cost of the remediation (to a maximum of \$337,000) however the quantum and likelihood remain uncertain.

## Notes to the Financial Statements (continued)

### 25. Major budget variances

Explanation of major budget variations are provided below for the Statement of Comprehensive Income and Expense, Statement of Financial Position and Statement of Cash Flows. The budget is published in the Callaghan Innovation Statement of Intent and Statement of Performance Expectations for the 12 months ended 30 June 2021. The budget figures have been prepared in accordance with NZ GAAP using accounting policies that are consistent with those adopted by the Board in preparing these financial statements.

#### Statement of Comprehensive Income and Expenses

Funding from the Crown is below budget as a result of slower than budgeted delivery of the National Science Challenge (down \$4.5m), the re-allocation of \$4.2m of FY2020/21 COVID relief funding to cover operating costs for the R&D Loan Scheme in future years, and the transfer of \$1.4m of budgeted demolition cost funding to FY2021/22. This has been offset by \$2m of revenue for the Booster Voucher Scheme (which was not reflected at a gross level in the budget). The National Science Challenge, demolition cost and Booster Voucher Scheme changes have all been offset by equal and opposite variances in expenditure and have not impacted the net deficit.

Personnel costs are higher than planned, primarily as a result of the use of contractor resources to accelerate delivery of our transformation programmes. This has been offset by lower than planned headcount for permanent staff, delivering salary savings.

Depreciation is below budget for the year following the slower than planned completion of several large projects, many of which have been impacted by COVID driven delays in sourcing material or specialist contractors internationally.

Other operating costs have landed broadly in line with budget, however there have been some classification differences between expense categories.

The impairment resulting from the impending Kiwistar sale was not budgeted.

#### Statement of Financial Position and Statement of Changes in Equity

To ensure surplus cash on hand was kept as low as possible, \$8m of budgeted capital contributions to fund the GIQ capital programme have been deferred to FY2021/22, when the cash payments are now expected. This has resulted in a lower than budgeted contributed capital.

The budget also assumed that the Group would be considered principal for the R&D loan scheme launched this year, and that the related capital contribution and loan balance would be recognised. After the budget was set, we concluded that the Group act as Agent for these loans, and these amounts have subsequently not been recognised in the financial statements. As a result, both capital contributions and loans receivable are significantly lower than budget.

Grant debtors and liabilities are both significantly above budget, as the settlement of final growth grant claims has taken longer than expected.

Property, plant & equipment and intangibles are below budget as a result of a slower than planned capital investment programme. This has been driven by supply chain challenges caused by COVID, complexities within the GIQ programme design process and slower than expected completion of several digital projects. This is partially offset by higher than budgeted capital work in progress, reflecting the investment programme underway.

Funds received in advance are also higher than planned, as several programmes have taken longer to transition from set up to delivery mode than expected. All these programmes are expected to catch up through FY2021/22, and to spend their full budgets over the relevant programme period.

## Notes to the Financial Statements (continued)

### Statement of Cash Flows

Variances against budget have followed many of the trends outlined above, including: key crown revenue and operating expense movements; lower than planned capital investment; a deferral of capital contributions to FY2021/22; and final treatment of the R&D loan scheme.

In addition, the budget has included term deposits in the opening and closing cash and cash equivalents, where in the actuals term deposits are included in investing activities which has created variances against budget.

### Reconciliation of Crown revenue:

#### Statement of Service Performance to Statement of Comprehensive Income and Expenses

For the twelve months ended 30 June		2021	2020
	Output class	\$000	\$000
<b>Revenue by output class in the Statement of Service Performance</b>			
Building business innovation	1	38,056	34,528
Research and development and facilities for business and industry	2	32,836	34,198
National Science Challenge	2	13,324	12,083
Business Research and Development contract management	3	8,014	7,788
National measurement standards	4	8,118	7,632
Industry 4.0	5	2,034	-
<b>Total output class revenue per the Statement of Service Performance</b>		<b>102,382</b>	<b>96,229</b>
Add: Booster Voucher Scheme funding		1,970	30
Add: Agritech Industry Transformation Programme funding		526	-
<b>Total Crown Revenue per Statement of Comprehensive Income and Expenses</b>		<b>104,878</b>	<b>96,259</b>

## 26. COVID-19 impacts

The primary impact on the Group in the current year has been through expenditure necessary to manage the Group's immediate COVID-19 response activities, enabling operations to continue and to ensure staff were able to work either remotely or under lock down restrictions. This expenditure came to \$430,000 (2020: \$454,000).

Other indirect impacts of COVID-19 on the Group include additional funding received by the Crown (refer note 2) and the consideration of potential impact to provisioning of debtor balances (refer note 8).

The Group has also implemented the R&D Loan Scheme (for which we are considered Agent) and Booster Voucher Scheme in 2020/21, both of which were part of the New Zealand Government's broader COVID-19 response.

## 27. Events after the balance sheet date

Following confirmation of a positive case of COVID-19 in the community, the Government announced on 17 August 2021 changes to New Zealand's COVID-19 Alert levels. At this stage, the impact on our business and financial results has been immaterial and based on our experience to date we expect this to remain the case. Management has further considered the impact of COVID-19 on the business and noted no events which require adjustment to or disclosure in these financial statements.

# Independent Auditors' Report

To the readers of Callaghan Innovation's group financial statements and performance information for the year ended 30 June 2021



The Auditor-General is the auditor of Callaghan Innovation group (the Group). The Auditor-General has appointed me, Christopher Barber, using the staff and resources of PricewaterhouseCoopers, to carry out the audit of the financial statements and the performance information, including the performance information for appropriations, of the Group on his behalf.

## Our opinion

We have audited:

- the financial statements of the Group on pages 65 to 98, that comprise the statement of financial position as at 30 June 2021, the statement of comprehensive income and expenses, statement of changes in equity and statement of cash flows for the year ended on that date and the notes to the financial statements including a summary of significant accounting policies and other explanatory information; and
- the performance information of the Group on pages 49 to 63.

## In our opinion

- the financial statements of the Group on pages 65 to 98:
  - present fairly, in all material respects:
    - its financial position as at 30 June 2021; and
    - its financial performance and cash flows for the year then ended; and
  - comply with generally accepted accounting practice in New Zealand in accordance with Public Benefit Entity Reporting Standards; and
- the performance information on pages 49 to 63:
  - presents fairly, in all material respects, the Group's performance for the year ended 30 June 2021, including:
    - for each class of reportable outputs:
      - › its standards of delivery performance achieved as compared with forecasts included in the statement of performance expectations for the financial year; and
      - › its actual revenue and output expenses as compared with the forecasts included in the statement of performance expectations for the financial year; and
    - what has been achieved with the appropriation; and
    - the actual expenses or capital expenditure incurred compared with the appropriated or forecast expenses or capital expenditure
  - complies with generally accepted accounting practice in New Zealand.

Our audit was completed on 22 October 2021. This is the date at which our opinion is expressed.

The basis for our opinion is explained below. In addition, we outline the responsibilities of the Board of Directors and our responsibilities relating to the financial statements and the performance information, we comment on other information, and we explain our independence.

## Basis for our opinion

We carried out our audit in accordance with the Auditor-General's Auditing Standards, which incorporate the Professional and Ethical Standards and the International Standards on Auditing (New Zealand) issued by the New Zealand Auditing and Assurance Standards Board. Our responsibilities under those standards are further described in the Responsibilities of the auditor section of our report.

We have fulfilled our responsibilities in accordance with the Auditor-General's Auditing Standards.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

## Responsibilities of the Board of Directors for the financial statements and the performance information

The Board of Directors is responsible on behalf of the Group for preparing financial statements and performance information that are fairly presented and comply with generally accepted accounting practice in New Zealand. The Board of Directors is responsible for such internal control as it determines is necessary to enable it to prepare financial statements and performance information that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the performance information, the Board of Directors is responsible on behalf of the Group for assessing the Group's ability to continue as a going concern. The Board of Directors is also responsible for disclosing, as applicable, matters related to going concern and using the going concern basis of accounting, unless there is an intention to merge or to terminate the activities of the Group, or there is no realistic alternative but to do so.

The Board of Directors' responsibilities arise from the Crown Entities Act 2004 and the Public Finance Act 1989.

## Responsibilities of the auditor for the audit of the financial statements and the performance information

Our objectives are to obtain reasonable assurance about whether the financial statements and the performance information, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit carried out in accordance with the Auditor-General's Auditing Standards will always detect a material misstatement when it exists. Misstatements are differences or omissions of amounts or disclosures, and can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of readers, taken on the basis of these financial statements and the performance information.

For the budget information reported in the financial statements and the performance information, our procedures were limited to checking that the information agreed to the Group's statement of performance expectations and relevant Estimates and Supplementary Estimates of Appropriations 2020/2021.



We did not evaluate the security and controls over the electronic publication of the financial statements and the performance information.

As part of an audit in accordance with the Auditor-General's Auditing Standards, we exercise professional judgement and maintain professional scepticism throughout the audit.

Also:

- We identify and assess the risks of material misstatement of the financial statements and the performance information, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Directors.
- We evaluate the appropriateness of the reported performance information within the Group's framework for reporting its performance.
- We conclude on the appropriateness of the use of the going concern basis of accounting by the Board of Directors and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements and the performance information or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- We evaluate the overall presentation, structure and content of the financial statements and the performance information, including the disclosures, and whether the financial statements and the performance information represent the underlying transactions and events in a manner that achieves fair presentation.
- We obtain sufficient appropriate audit evidence regarding the financial statements and the performance information of the entities or business activities within the Group to express an opinion on the consolidated financial statements and the consolidated performance information. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Our responsibilities arise from the Public Audit Act 2001.

### **Other information**

The Board of Directors is responsible for the other information. The other information comprises the information included on pages 1 to 104, but does not include the financial statements and the performance information, and our auditor's report thereon.

Our opinion on the financial statements and the performance information does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements and the performance information, our responsibility is to read the other information. In doing so, we consider whether the other information is materially inconsistent with the financial statements and the performance information or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on our work, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

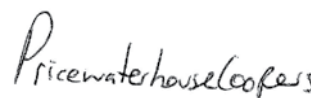
### **Independence**

We are independent of the Group in accordance with the independence requirements of the Auditor-General's Auditing Standards, which incorporate the independence requirements of Professional and Ethical Standard 1: *International Code of Ethics for Assurance Practitioners* issued by the New Zealand Auditing and Assurance Standards Board.

In addition to the audit we have carried out engagements in the areas of controls assurance services, which are compatible with those independence requirements. Other than the audit and these engagements, we have no relationship with or interests in the Group.



**Christopher Barber**  
On behalf of the Auditor-General  
Wellington, New Zealand



**PricewaterhouseCoopers**

# Statutory Reporting Requirements

## Ministerial directions (Section 151[1][F] Crown Entities Act 2004)

Callaghan Innovation received one Ministerial Direction in the 2020/21 year. All Ministerial Directions currently applicable to Callaghan Innovation are on our website ([callaghaninnovation.govt.nz](http://callaghaninnovation.govt.nz)) or on the New Zealand Gazette website ([gazette.govt.nz](http://gazette.govt.nz)).

## Systems and procedures for administration of government grants

Section 15(2) of the Callaghan Innovation Act requires that we report on the systems and procedures that provide fairness and transparency around the allocation and administration of government research, science and technology (RS&T) grants.

Callaghan Innovation has a Conflicts of Interest policy that is reviewed and approved by the Callaghan Innovation Board. Potential conflicts of interest are assessed as part of the grant application assessment.

To give effect to the requirement of the Act, the following systems and procedures have been implemented and operated throughout the year across all grants as follows:

### Project, Student and Growth Grants

- Eligibility criteria are published on the Callaghan Innovation website.
- Eligible research and development is assessed by a minimum of two persons. Grant applications that do not meet the R&D eligibility criteria are not accepted.
- A Financial Risk Analyst performs financial due diligence on all Project Grants and Growth Grants with project costs greater than \$100,000 to confirm that the grant recipient has sufficient financial stability to be able to conduct the R&D activity for the period of the grant. Due diligence in Project grants with project costs of less than \$100,000 and Student grants are performed by Account Managers.
- Application forms are standard for each grant type and not amended for individual circumstances. All grants are approved in line with a delegations policy approved by the Callaghan Innovation Board. The amount and type of the grant will determine at what level it can be approved. For Project and Growth grants, approval is by way of an investment committee. Project Grants with project costs of \$1.5 million or greater require approval by a committee that comprises both internal and external members.
- Project grants with project costs greater than \$500,000 are independently reviewed by an external reviewer (with expertise specific to the industry) to support the internal assessment of criteria.
- Grant funding contracts are standard and not amended for individual circumstances. Funding contracts are approved in line with a delegations policy approved by the Callaghan Innovation Board.
- Claims for payment to grant recipients are approved in line with a delegations policy approved by the Callaghan Innovation Board.

### Technology Incubator Repayable Grant Scheme

- Application forms are standard and not amended for individual circumstances. All grants are approved in line with a delegations policy approved by the Callaghan Innovation Board. Approval is by way of an investment committee that comprises both internal and external members.
- Eligible research and development for incubator repayable grants is assessed in accordance with the directives of the scheme.
- Grant funding contracts are standard and not amended for individual circumstances. Funding contracts are approved in line with a delegations policy approved by the Callaghan Innovation Board.
- Claims for payment to grant recipients are approved in line with a delegations policy approved by the Callaghan Innovation Board.

## Enforcements of Acts (Section 20[3] Crown Entities Act 2004)

Callaghan Innovation did not enter into any transaction that was invalid under section 19 of the Crown Entities Act 2004, and therefore was not required under section 20 of the Crown Entities Act to perform any such transaction.

A transaction would be invalid under section 19 if:

- Callaghan Innovation breached the Crown Entities Act by entering into it
- Callaghan Innovation was acting outside its authority under the Crown Entities Act by entering into it, or
- Callaghan Innovation did not enter into it for the purpose of performing its functions.

## Employee remuneration

The table below shows the number of Callaghan Innovation employees who received remuneration and/or benefits (excluding redundancy and cessation payments) of \$100,000 or more for the financial year ended 30 June 2021.

Pay bracket	Number of employees			Total
	Callaghan Innovation	Food Innovation Auckland Limited	Food Innovation (South Island) Limited	
100,000 – 109,999	32		None –	32
110,000 – 119,999	33	1	no employees earn \$100k	34
120,000 – 129,999	33			33
130,000 – 139,999	23			23
140,000 – 149,999	22	1		23
150,000 – 159,999	12			12
160,000 – 169,999	18			18
170,000 – 179,999	12			12
180,000 – 189,999	4			4
190,000 – 199,999	6	1		7
200,000 – 209,999	3			3
210,000 – 219,999	0			0
220,000 – 229,999	3			3
230,000 – 239,999	0			0
240,000 – 249,999	1			1
250,000 – 259,999	1			1
260,000 – 269,999	1			1
270,000 – 279,999	0			0
280,000 – 289,999	0			0
290,000 – 299,999	0			0
300,000 – 309,999	0			0

Pay bracket	Number of employees			Total
	Callaghan Innovation	Food Innovation Auckland Limited	Food Innovation (South Island) Limited	
310,000 – 319,999	1			1
320,000 – 329,999	1			1
330,000 – 339,999	1			1
340,000 – 349,999	0			0
350,000 – 359,999	0			0
360,000 – 369,999	1			1
370,000 – 379,999	0			0
380,000 – 389,999	0			0
390,000 – 399,999	0			0
400,000 – 409,999	0			0
410,000 – 419,999	0			0
420,000 – 429,999	0			0
430,000 – 439,999	0			0
440,000 – 449,999	0			0
450,000 – 459,999	0			0
460,000 – 469,999	0			0
470,000 – 479,999	0			0
480,000 – 489,999	0			0
490,000 – 499,999	0			0
500,000 – 509,999	0			0
510,000 – 519,999	0			0
520,000 – 529,999	1			1
<b>Total</b>	<b>209</b>	<b>3</b>	<b>0</b>	<b>212</b>



## Board of Directors' Remuneration

### Callaghan Innovation Directors

Angela Bull	28,000
Elena Trout	28,000
Jennifer Kerr	35,000
Pete Hodgson	58,000
Shaun Hendy	28,000
Stefan Korn	862
Matanuku Mahuika	28,000
<b>Total</b>	<b>205,862</b>

### Food Innovation Auckland Limited Directors

Roger Gower	15,000
Anthony Nowell	10,000
Michael Barker	10,000
Karen Fistonich	10,000
Matt Kenny*	1,667
Stefan Korn*	8,333
<b>Total</b>	<b>55,000</b>

### Food Innovation (South Island) Limited Directors

Alan Malcomson	18,192
Charles Brennan	5,738
Fraser Heller	9,097
Matt Kenny*	758
Stefan Korn*	8,339
<b>Total</b>	<b>42,124</b>

\* Director was an employee of Callaghan Innovation and did not receive any additional compensation for their role on these Boards. These fees were paid directly to Callaghan Innovation.

## Grants Committee (non-board members) Remuneration

### Callaghan Innovation (non-board members)

Peter Townsend	6,750
Dr Alastair MacCormick	6,750
<b>Total</b>	<b>13,500</b>







# Science working for New Zealand

The eight members of Science New Zealand proudly work individually and collectively alongside the rest of government to create a more prosperous, sustainable and innovative New Zealand.

4,000+

smart and passionate people

50+

sites nationwide

6,000+

science projects every year

40+

nationally significant databases and collections

[sciencenewzealand.org](http://sciencenewzealand.org)

**CallaghanInnovation**  
New Zealand's Innovation Agency



**agresearch**  
*āta mātai, mātai whetū*



**scion**

**Plant & Food Research**  
Rangahau Ahumāra Kai

**E/S/R**  
Science for Communities

[newzealand.govt.nz](http://newzealand.govt.nz)