Callaghan Innovation:

What we do & why we do it

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Group Manager - Programmes

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What we do
“One hundred inspired New Zealand entrepreneurs can turn this country around. This is the challenge for us all”

Sir Paul Callaghan, 1947–2012

Rukuhia te wāhi ngaro, hei maunga tātai whetū
Explore the unknown, pursue excellence
We activate innovation & help businesses grow faster for a better New Zealand

This is our purpose
A team of over 400 people

Serving customers nationwide

- 200+ scientists and engineers altogether in RTS and our commercial businesses
- R&D centres in Wellington, Auckland and Christchurch
- 14 Regional Business Partners
Our core services

R&D & Commercialisation
Our engine room of leading scientists and engineers are dedicated to solving tough technical problems with research and development, and innovation.

Skills Programmes
Innovation and business growth require specialised skills and knowledge, process and discipline, and the ability to think in new and creative ways to imagine the future.

R&D Grants & Incentives
Our R&D grants – and the upcoming R&D Tax Incentive – enable customers to pursue their business ideas and realise commercial success.

Scale–Up NZ
Our free online platform profiles ambitious, innovative NZ businesses alongside the investors and others who support them – helping NZ’s innovation ecosystem to thrive.
Research and Technical Services
## RTS services

Our specialist areas:

<table>
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<tr>
<th>Advanced Materials</th>
<th>Advanced Manufacturing</th>
<th>IoT and Data Solutions</th>
<th>Biotechnology</th>
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<td>Experts in selecting and developing materials to give products a competitive edge.</td>
<td>Helping ‘smart industry’ operators solve their complex manufacturing challenges.</td>
<td>From transmission to processing and visualisation. Experts in all aspects of data.</td>
<td>Delivering tailored R&amp;D services in biotechnology, biological materials and bioprocessing.</td>
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### Examples:

- Developing methods to extract, concentrate, purify and use natural resources, from minerals to waste minerals
- Developing robotic systems for use in applications such as pasture and livestock management, and navigation
- Creating virtual and augmented reality-based products and digitising manufacturing operations
- Designing and creating imaging and sensing systems – acoustic, ultrasonic, microwave, optical, hyperspectral, magnetic, chemical and electrical
- Large-scale extraction, fermentation and separation / isolation
- Analysis, separation and identification of a range bioactive compounds from sources such as diary, plants, bees, meat and fish
Programmes
We Create and Deliver Programmes, Workshops and Tools that build Innovation Excellence
Driving Innovation will help you:

- enhance your innovation culture
- outpace competition through accelerated product development
- Increase revenue and ROI from innovation activity
- adopt methodologies such as Lean Product Development, Lean Start-up, Agile, Customer Empathy, Design Thinking and The 10 Types of Innovation
- give you the tools and experiences to adopt an innovation mindset.

Driving Innovation won’t:

- ignore your existing expertise
- be a Lean programme
- create your ideas for you
- be a single methodology

Are you...

- currently investing in new product development?
- suffering from loop backs and delayed product launches?

Yes? Driving Innovation is for you.

Cost

Packages range from $5,000-$50,000 total programme cost. You pay 60%. We fund 40%.

Talk to your Callaghan Innovation advisor for details. 0800 4 CALLAGHAN (0800 422 552)
Innovation IP
Identify and strategically manage your intellectual property (IP)

Innovation IP will help you:

- manage infringement risk
- avoid losing valuable IP
- identify IP assets such as patents, trademarks, know-how and copyrights
- leverage IP value for faster growth and contractual arrangements.

Are you …

- an NZ business of any size generating valuable IP?
- investing in R&D and want to maximise the value of your IP?
- wanting to understand your freedom to commercialise and avoid risk of infringement?

Yes? Innovation IP is for you

Innovation IP won’t:

- make you an IP expert
- be a service for registering patents and trademarks, or defending copyright
- neglect all your existing know-how and expertise.

Cost

Stage 1: $4500-$9500. You pay 60%. We fund 40%.
Stage 2: Up to $12,500. You pay 60%. We fund 40%.

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Lean
Better productivity through engaged staff

**Lean will help you:**
- identify customer value-adding activities
- identify inefficiencies across your business
- improve planning, staff engagement, customer value, inventory, and production flow
- create a continuous improvement culture
- provide ongoing access to a Lean coach for implementation.

**Lean won’t:**
- cut jobs
- look at individual departments.

**Are you...**
- medium to large-scale high-value manufacturing and services, or supply chain company?
- stalled by unnecessary costs, poor staff engagement, low customer value, or inefficient workflow?

Yes? Lean is for you.

**Cost**
Lean one-day workshops cost $65 per person.
Implementation costs over 12 months vary depending on the consultant chosen. You pay 60%, we fund 40%, up to a maximum of $20,000.

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Build for Speed
Deliver better software faster

Build for Speed will help you:

- identify and reduce technical debt
- introduce continuous delivery and improvement principles
- improve architecture for better, efficient software
- free your developers from testing and fixes
- improve workflow
- deliver the right product to customers.

Build for Speed won’t:

- be an overnight quick fix
- be a short-term stopgap.

Do you have ...

- 3+ developers, a year’s code and at least one product in use?
- a desire to deliver quality product quickly and predictably?
- resource constraint frustrations?
- customers reluctant to receive updates?

Yes? Build for Speed is for you.

Cost

Discovery phase cost: $5000–$7000. You pay 60%. We fund 40%.

Excellence phase cost: $12,500 each. You pay 60%. We fund 40%.

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Programme Development Pathway

Opportunity frame the need

Idea → Concept → Development → Prototype → Pilot → Launch

Create through customer understanding
Prototype with customer
Test across market sectors
Take to Market

Develop through domain expertise

Human Centred Programme Development Framework
## Programmes in Development

<table>
<thead>
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<tr>
<td>Regulatory Advantage</td>
<td>Prototype</td>
</tr>
<tr>
<td>Innovation Foundations</td>
<td>Prototype</td>
</tr>
<tr>
<td>Capital Education w/shop</td>
<td>Pilot</td>
</tr>
<tr>
<td>Lean 2.0</td>
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R&D Funding
R&D Grants and the R&D Tax Incentive:
For all types of innovation

Getting Started Grants
The Getting Started grant enables a new and novel product, process or service from development to commercialisation.

Project Grants
For businesses that are new to R&D or want to expand their efforts. A Project Grant can help businesses take on larger or more challenging R&D projects.

Student Grants
Student Grants provide solutions for businesses and students. For either businesses wanting to increase R&D or students looking to develop technical skills within a commercial business.

R&D Tax Incentive
The upcoming R&D Tax incentive replaces our previous Growth Grant. We can help you prepare to make the most of this government support.
Startups
Founder Incubators

We support six incubator programmes for early stage business helping them with:

- technology and business development
- capability building
- investment preparation
- access to networks
- governance support.
Accelerators

We support five national accelerator programmes for seed and early stage business to get 3-6 months of rapid and intensive product and business development support.

Businesses get access to specialist mentoring and coaching, and will be exposed to a network of startup and tech experts.

The programmes conclude with a pitch to potential investors and the wider startup community.
Technology Incubators

We support three technology incubators for seed and early stage start ups. These actively invest in and help commercialise complex technologies, taking concepts to the next level by building a business around the technology to grow globally competitive hi-tech businesses.

Access to repayable loan, $450,000 matched to $150,000 private investment*.

*this will increase under new policy settings to begin 2020
A free online platform showcasing NZ innovation to the world

- Detailed and verified information on New Zealand’s innovation ecosystem
- From ambitious, innovative NZ businesses to investors, incubators and multinationals
- Data and insights on deals, new start-ups, industry and investment trends
- Search by industry, business model, funding stage, location and more
Innovation is crucial to our future

• Economic diversification
• Export growth
• Sustainability
• Increased productivity
• Resilience to disruption
• Wage growth
We need a step change for growth by driving R&D spending
Good news: business R&D spend is accelerating

- New Zealand businesses spent $2.1bn on R&D in 2018
- Over $500 million increase over the past two years – biggest jump for a decade
- At this growth rate, we will reach the government’s growth target of 2% GDP within the next decade
Our impact

Our customers’ share of the total NZ business R&D spend in 2017 = over $1bn

60%
But we still have plenty of urgent work to do

Our current R&D investment relative to GDP – 2017/2018

1.37%
Our R&D spend is well below the OECD average

Relative to GDP – 2017/2018

2.34%
And just look at what Israel spends on R&D
Relative to GDP – 2017/2018

4.25%
• Multidiscipline
• Design Culture
• Visual
• Black and Decker
• Digital
• Fail Fast
• VOC - Club
• Compliance
• IP
• ID
Thank you