

# Callaghan Innovation:

What we do &  
why we do it

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# What we do

  
DANGER



*“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

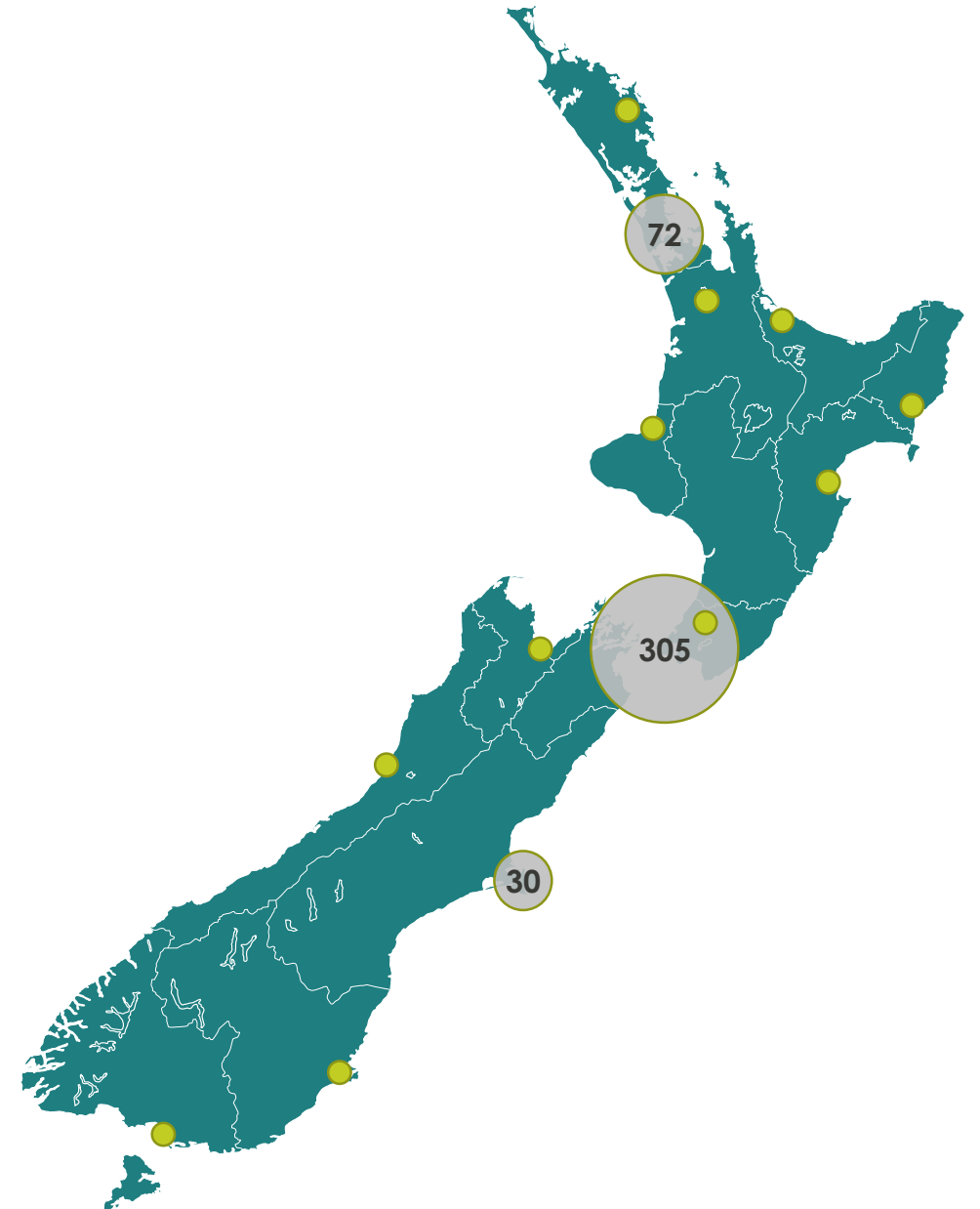
This is our purpose



# 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

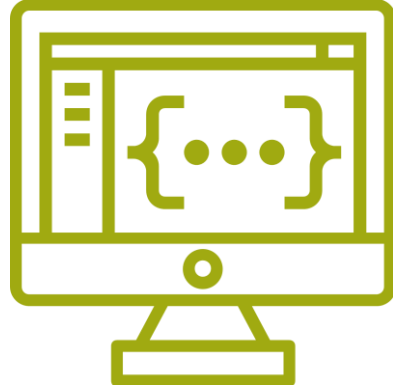


# Our core services



## 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:

## Advanced Materials

Experts in selecting and developing materials to give products a competitive edge.

## Advanced Manufacturing

Helping 'smart industry' operators solve their complex manufacturing challenges.

## IoT and Data Solutions

From transmission to processing and visualisation. Experts in all aspects of data.

## Biotechnology

Delivering tailored R&D services in biotechnology, biological materials and bioprocessing.

### 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 of bioactive compounds from sources such as dairy, plants, bees, meat and fish



# Programmes



**We Create and Deliver Programmes, Workshops  
and Tools that build Innovation Excellence**

# Driving Innovation

Develop better products faster

CallaghanInnovation

New Zealand's Innovation Agency

## 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)**





# Lean

Better productivity through engaged staff

CallaghanInnovation

New Zealand's Innovation Agency

## 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.

Talk to your Callaghan Innovation advisor for details.  
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# Build for Speed

Deliver better software faster

CallaghanInnovation

New Zealand's Innovation Agency

## 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.

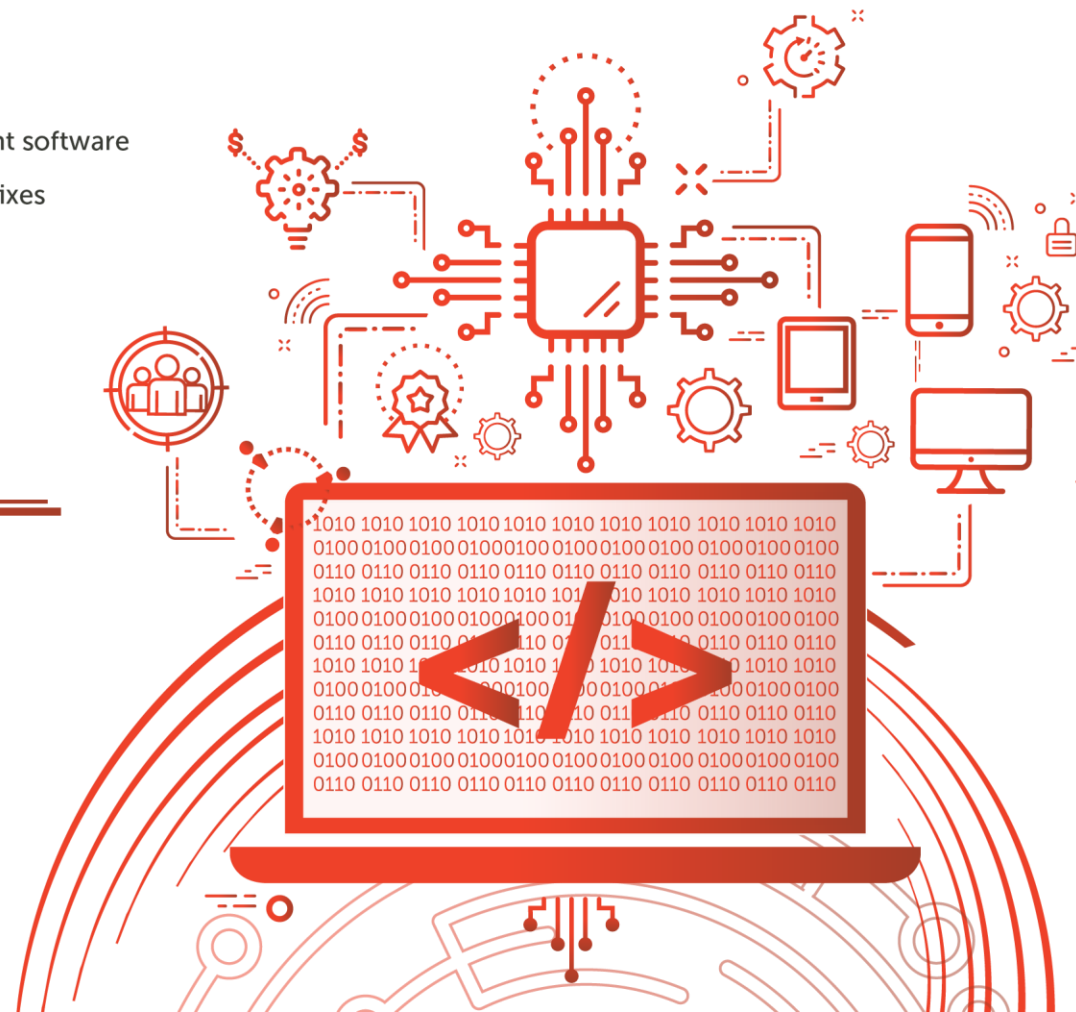
## Cost

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

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

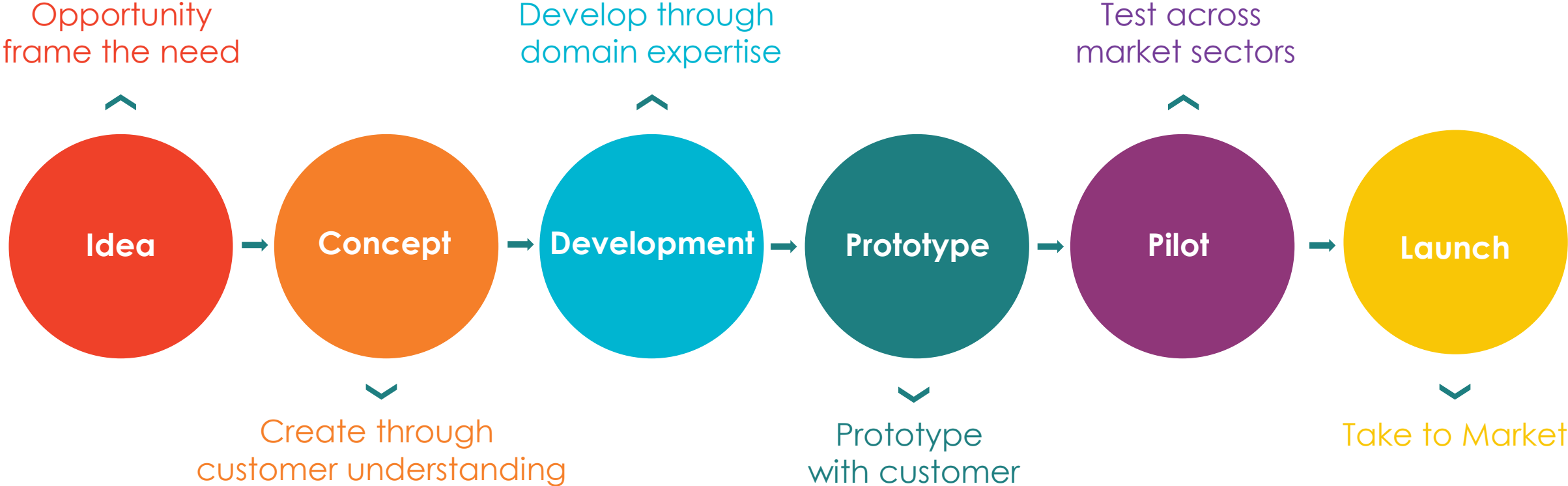
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# Programme Development Pathway



# Programmes in Development

Programme Name

Stage

Regulatory Advantage

Prototype

Innovation Foundations

Prototype

Capital Education w/shop

Pilot

Lean 2.0

Pilot



# 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

# Scale-Up NZ





# 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



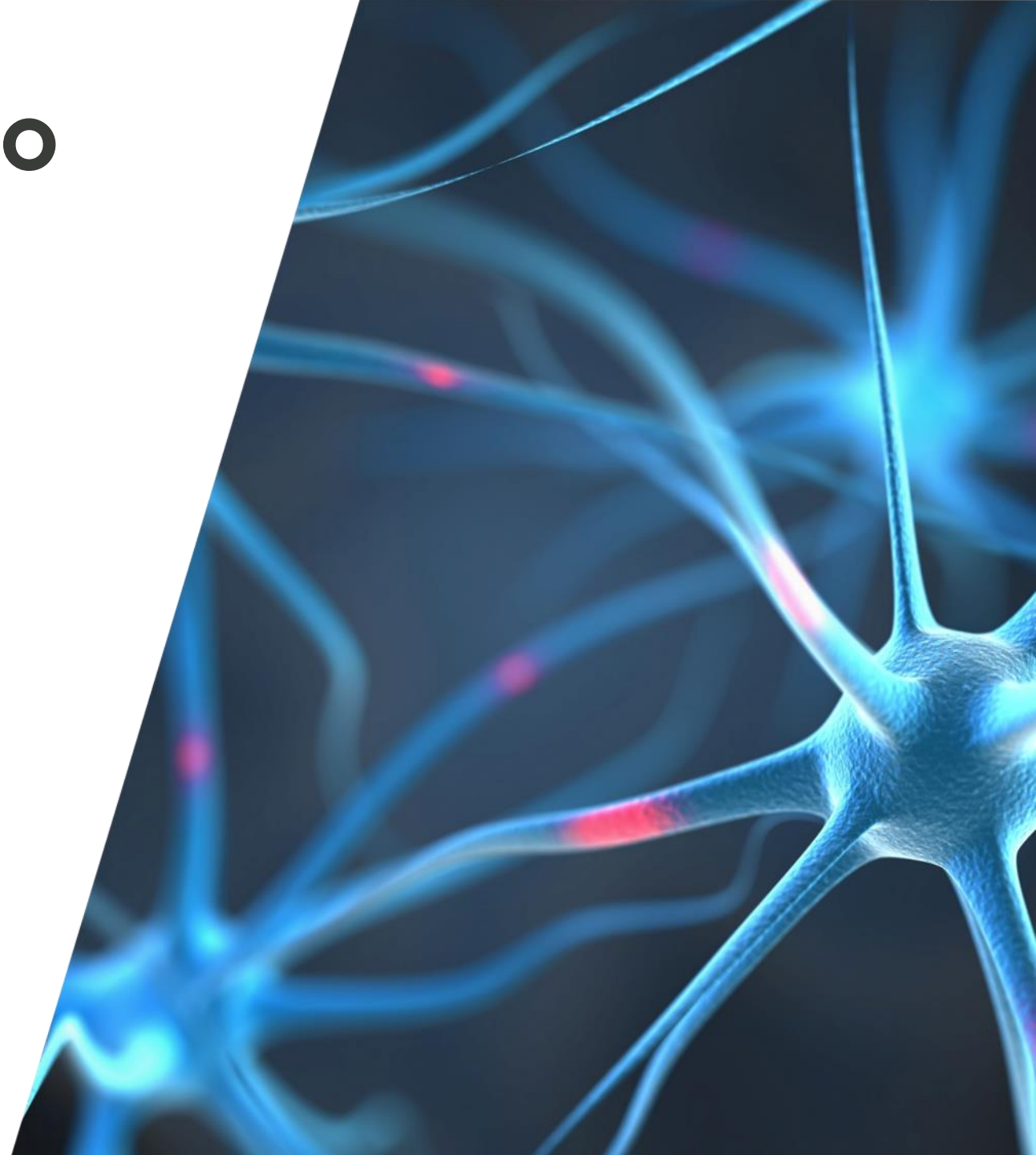




Why we do it

# Innovation is crucial to our future

- Economic diversification
- Export growth
- Sustainability
- Increased productivity
- Resilience to disruption
- Wage growth

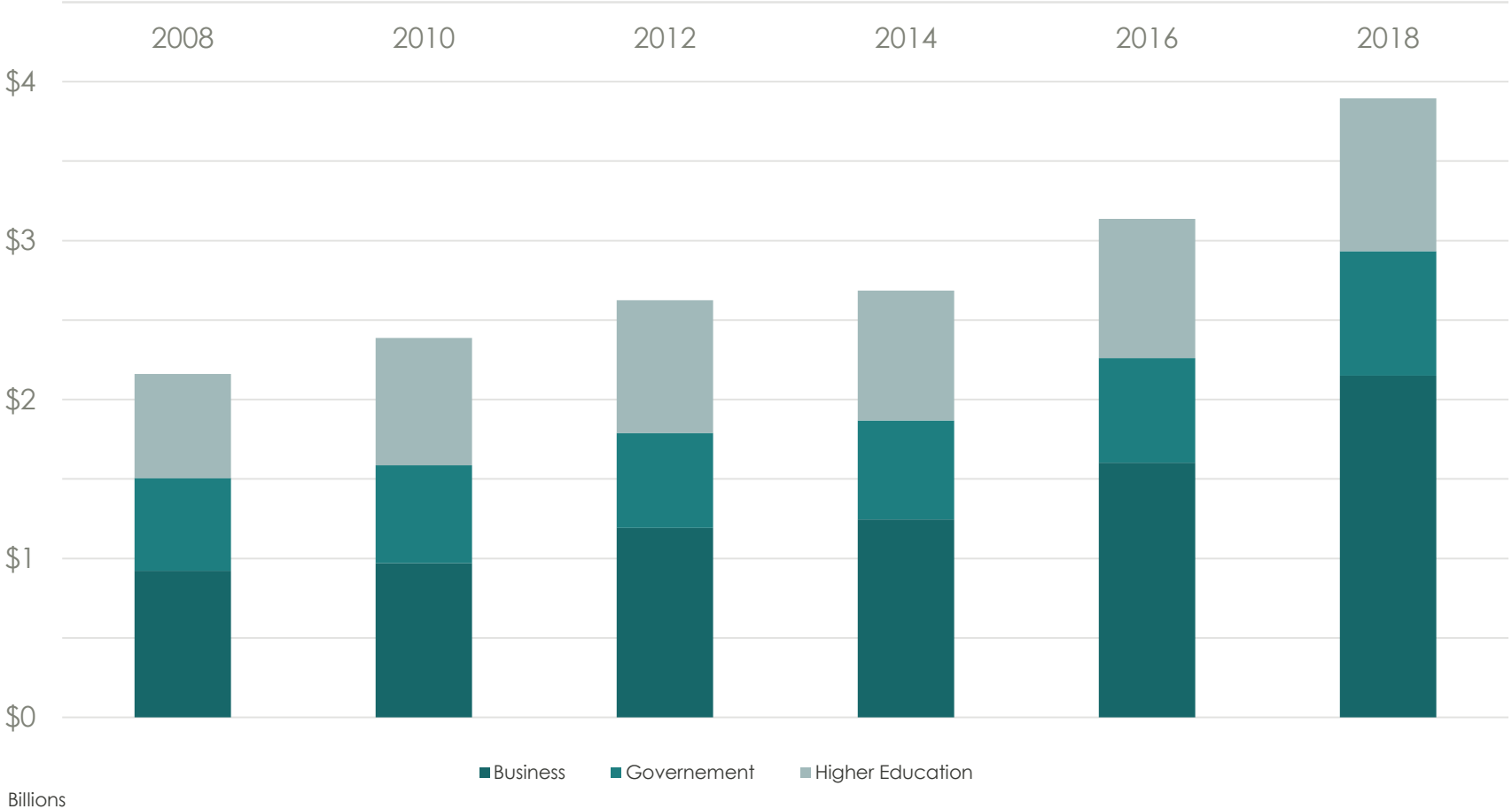




**We need a step  
change for growth by  
driving R&D spending**



# 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%



# NOVA Woodworking



- Multidiscipline
- Design Culture
- Visual
- Black and Decker
- Digital
- Fail Fast
- VOC - Club
- Compliance
- IP
- ID



Thank you