Partnerships Investment Plan

2018



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Foreword

The Ministry of Business, Innovation & Employment Partnerships mechanism supports high-quality research aimed at areas of future value, growth or critical need for New Zealand. It aims to strengthen ties between research organisations and research users, particularly industry sectors, by supporting them to establish a long-term research programme. Partnership members determine the research they will undertake, so the research is driven by a sector's needs.

Partnerships focuses on longer term research that supports a whole sector rather than just a single firm or organisation. This reflects the rationale for Government investment where research timeframes and outcomes may be too uncertain for full investment by private investors, but where the rates of social return are potentially very high.

The benefits of Partnerships have accrued mostly to well-established, well-coordinated industries. This Government has a strong desire to diversify the portfolio of research, science and innovation investments. In 2018, Partnerships will only fund highly innovative research with potentially transformational impacts that contribute to sustainable economic development through:

- > Growing emerging, high-tech, knowledge intensive sectors
- > Developing technologies that radically improve resource efficiency, or reduce environmental impact of (or render obsolete) an existing resource use
- > Transitioning to a low emissions economy by 2050
- > Ensuring a rich and protected environment.

In practice, transformational impact means disruptive change to business as usual, or new economic sectors, categories of goods or service, or sustainable uses for natural resources. It does not mean incremental improvements to existing industries.

This investment plan is for 2018 only. Following the 2018 investment round, I will consider how to invest future funding in a way that supports a wider range of sectors and contributes strongly to the Government's priority areas.

This year will see some exciting progress in New Zealand's research, science and innovation system. The Government has committed to increase total R&D investment to 2% of GDP in ten years and we are making changes to ensure we achieve that goal. For example, the introduction of an R&D tax incentive will lift business investment in R&D, which is a significant and critical portion of R&D funding in New Zealand.

I encourage sectors that are well-placed to contribute to Government priorities to participate in the 2018 round of Partnerships investments. Our wellbeing, economy and environment will all benefit from the excellent, transformative science we seek to fund through Partnerships.

Hon Dr Megan Woods

W. E. G.

MINISTER OF RESEARCH, SCIENCE AND INNOVATION

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Purpose of the Investment Plan

This Investment Plan is issued by the Minister of Research, Science and Innovation. It should be read in conjunction with the Gazette Notice, which sets out the eligibility and assessment criteria for Partnerships proposals. The Science Board will make investment decisions that align with the directions signalled in this Investment Plan and the criteria set out in the <u>Partnerships Gazette Notice</u>.

This Investment Plan sets out:

- > The role of Partnerships and how it fits with other government science investments
- > The funding available and investment signals for the 2018 round

The Partnerships Mechanism

The following explains the role of Partnerships in the research, science and innovation system.

Investment for Long-Term, Sector-Led Transformative Impact

The purpose of Partnerships is to stimulate sector-led investment and collaborative effort in longer term, innovative research activity with potential for transformative impact in areas of future value, growth or critical need for New Zealand, and to give effect to the Vision Mātauranga policy.

Support for sector-led research with a focus on developing emerging ideas is the dominant focus of Partnerships, which aims to maximise sector investment and build linkages between industry and research organisations as part of the proposed research programme.

Government supports R&D in partnership with business to increase business investment and confidence in R&D. Research results are more likely to be taken up and impact maximised when business is the primary investor in, and director of, the research.

The requirement for sector co-funding is consistent with the Government's expectation to see higher rates of business investment where research is directly beneficial to industry. Increased business investment in R&D is critical to reaching the Government's commitment to increase total R&D investment to 2% of GDP in ten years.

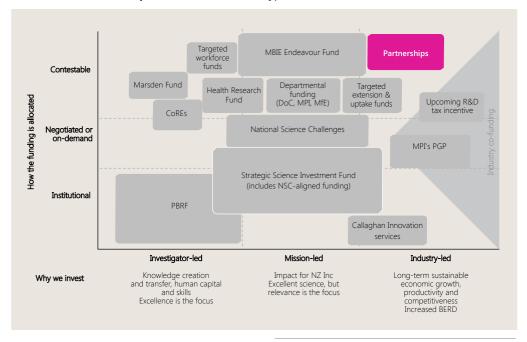
Partnerships Investments within the Science System

The Partnerships mechanism is a complementary part of the Government's wider investment in sector-led science, made through:

- 1. The upcoming R&D tax incentive.
- 2. Callaghan Innovation services, which assist firms to develop the skills, expertise and connections to successfully develop ideas and take them to market.
- 3. The Ministry for Primary Industries' (MPI) Primary Growth Partnership (PGP), which drives substantial economic growth in the primary and food sectors, through joint investment by government and the industry aimed at market-driven innovations.
- 4. Regional Research Institutes, which are intended to bring knowledge capital into the regions and catalyse industry investment in research and development specific to the region.

Research supported by Partnerships should not duplicate investment through the wider science system or research which is already underway elsewhere, either domestically or overseas.

The following illustration indicates where Partnerships fits in relation to wider government-funded science and innovation investments, by allocation method and type of investment.



Government science and innovation investments by allocation method and type of investment

Contestable Funding Process

Partnerships uses a contestable process to encourage proposal development and drive increasingly excellent research with high potential for impact in areas of future value, growth or critical need for New Zealand. Applicants are invited to respond to a Call for Proposals that will be issued in April 2018.

Decisions Based on Excellence and Impact

Investment decisions will be made by the Science Board who may seek advice from independent assessors as required. Criteria for assessment are in the <u>Partnerships Gazette Notice</u>.

Excellence

Research excellence is critical for government investment in research. Partnerships are expected to conduct a significant portfolio of research that is:

- > high quality and fit-for-purpose science to deliver impacts to the target sector and more broadly to New Zealand
- > in the 'developing emerging ideas' horizon, which supports higher risk and/or innovative research
- > carried out by a high quality research team with the best mix of complementary skills, knowledge and resources to deliver the research programme.

Impact

Potential impact arising from the research portfolio is the second key consideration. Partnerships are expected to have the potential to deliver impact that:

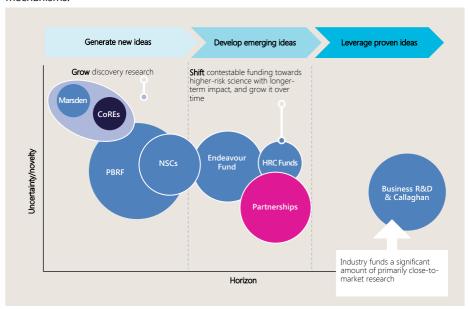
- > is transformative for a sector
- > has broad benefits
- > is large in scale.

A pathway to market might not be clear at the beginning of a Partnership due to its focus on developing emerging ideas. However, as the research progresses, ways to commercialise innovative products or processes should become a key consideration for the Partnership.

Research Horizons

The Government also considers investments in terms of overlapping horizons of activity, ranging from discovery research through to shorter term, near-to-application research.

Partnerships has a focus on excellent, longer-term research that develops emerging ideas rather than close-to-market innovation. The following graph shows where Partnerships sits compared with other funding mechanisms.



Some of the Government's science and innovation investments by allocation method and type of investment

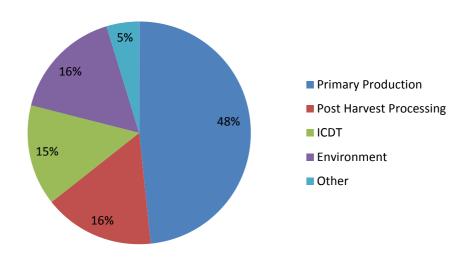
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Current Partnerships Investments

Current Partnerships investments are predominantly related to the primary sector. Around 48% of Partnerships funding in 2018/19 is in primary production, which includes plant and animal products, such as forages, forestry, fruit, dairy, meat, seafood and wine. A further 16% is invested in post-harvest processing of primary products, such as new uses for wool protein and leather.

The remaining investments are in environment, information, communication and digital technologies or other sectors. These investments include research into primary greenhouse gas mitigation, health technologies, and civil engineering.

PARTNERSHIPS INVESTMENTS IN 2018/19 BY SECTOR



Proportion of Partnerships funding by sector. Figures are for Partnerships funding invested in 2018/19.

Further information on existing Partnership investments can be found on the Partnerships page of the MBIE website¹.

¹ http://www.mbie.govt.nz/info-services/science-innovation/research-partnerships

Investment Signals for 2018

This section sets out the Government's ambition for investments in the 2018 Partnerships round.

Diversifying the Portfolio

The Government would like to see a wider range of industries and sectors represented in the Partnerships portfolio. In 2018, Partnerships will only fund proposals for highly innovative research with potentially transformational impacts that contribute to sustainable economic development through:

- > Growing emerging, high-tech, knowledge intensive sectors
- > Developing technologies that radically improve resource efficiency, or reduce environmental impact of (or render obsolete) an existing resource use
- > Transitioning to a low emissions economy by 2050
- > Ensuring a rich and protected environment.

Impact is a function of the disruptiveness of the change itself and the size of sector(s) being changed. For Partnerships, 'transformational impact' focuses on the disruptiveness of the change rather than the size of the sector(s) being changed. In practice, Partnerships should not aim for incremental improvements to existing industries. Rather, Partnerships should result in transformational impacts on business as usual, or explore new economic sectors, cross-sector synergies, categories of goods or service, or sustainable uses for natural resources.

Giving effect to the Vision Mātauranga policy is a priority across this and other government science funding mechanisms. Where relevant, Partnerships proposals should provide opportunities for Māori, individually or collectively, to derive benefit from leading, developing or co-developing, participating or partnering in the research and its implementation. Ideally, proposals should explore co-funding opportunities involving Māori to lift productivity and performance in Māori businesses and other enterprises.

Research with the primary objective of health outcomes is funded through separate contestable funding managed by the Health Research Council² and will not be funded through Partnerships.

² The Health Research Council manages the Government's investment in health research. Their vision is to improve the health and quality of life of all New Zealanders.

Funding Opportunities

Available funding in 2018

It is anticipated that about \$3.7 million per year of Partnerships funding will be invested in the 2018 Partnerships round, committing up to \$25.9 million over the next seven years. The final amount of funding invested in 2018 will depend on the amount allocated by the Science Board and the length of contracts.

Funding Arrangements

Programmes of research are limited to two terms of no more than seven years each³. After a maximum of 14 years, it is expected that any value in the research will have become sufficiently clear to attract enough industry investment to be self-sufficient.

Although the partners themselves can be the same as in a previous partnership, applications for new Partnerships must have a substantively different programme of research from previously funded Partnerships. The Science Board remains the decision maker and will determine whether a proposed programme of research is substantively different.

First term Partnerships must contribute a minimum of 60 per cent cash co-funding over the life of the contract, and second term Partnerships a minimum of 70 per cent. To assist new Partnerships in their early stages, partnership contributions can be less than 60 per cent in the early years of the contract. This will be allowed provided that the full contribution is achieved over the duration of the contract (i.e. total government contribution must be no greater than 40 per cent over the full lifetime and value of the contract). The same provisions apply to second term Partnerships but government contributions will be no more than 30 per cent.

The Gazette Notice contains further information on eligibility criteria and funding conditions.

Application Process and Decision-making

The Call for Proposals will detail in full the application and assessment processes, as well as the timeline. The Science Board is the decision maker for Partnerships funding.

For the first stage, applicants will be required to submit a Concept. The assessment of Concepts will focus on whether they meet eligibility requirements. Applicants whose Concepts meet these criteria may then be invited by the Science Board to submit a Full Proposal.

Submission of Full Proposals is the second stage of the process. The investment decision on Full Proposals will be made by the Science Board, which may seek advice from independent assessors as required. The Science Board will assess Full Proposals in accordance with the criteria set out in the Partnerships Gazette Notice. The criteria are focused on impact and excellence, with additional criteria related to governance arrangements and Vision Mātauranga. Decisions must be in accordance with this Investment Plan, including fit with the investment signals described on page 7.

³ Note that programmes of research can be for fewer than seven years if applicants wish.

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