



COVERSHEET

Minister	Hon Megan Woods	Portfolio	Research, Science and Innovation
Title of Cabinet paper	Proactive Release of the Proposed Changes to the Technology Incubator Programme Cabinet Paper and Related Cabinet minutes	Date to be published	28 March 2019

List of documents that have been proactively released

Date	Title	Author
13 February 2019	Proposed Changes to the Technology Incubator Programme	Office of the Minister of Research, Science and Innovation
18 February 2019	Extract from Cabinet Minute CAB-19-MIN-0033	Secretary of Cabinet
13 February 2019	DEV-19-MIN-0001 Minute	Committee Secretary of DEV

Information redacted

YES

Any information redacted in this document is redacted in accordance with MBIE's policy on Proactive Release and is labelled with the reason for redaction. This may include information that would be redacted if this information was requested under Official Information Act 1982.

In Confidence

Office of the Minister of Research, Science and Innovation


Chair, Cabinet Economic Development Committee

Proposed Changes to the Technology Incubator Programme

Proposal

1. I propose that the Technology Incubation programme be scaled, and better aligned with Government's priorities and other activity in this space.
2. I am also proposing to make changes to the Technology Incubator policy settings. This includes more ambitious requirements for providers and better operational and monitoring support.

Executive Summary

3. A more knowledge intensive economy will be more productive, more resilient, and produce fewer emissions. This will increase the wellbeing of New Zealanders. However, it can be very difficult for new knowledge, especially from the public science system, to become a viable commercial technology. To address this in 2014 the Government established Technology Incubators.
4. Technology Incubators commercialise science by forming companies and providing access to commercial capability and early capital. This maximises the potential for the technology to become a successful commercial proposition. This increases innovation in the New Zealand economy, and creates high value economic opportunities. This Cabinet paper outlines proposed changes to the Technology Incubators Programme.
5. Over the past five years the New Zealand innovation system has grown and changed. A further transformational impact requires greater ambitions for the Technology Incubator programme. Therefore, I am proposing a scaled up programme. Confidential advice to Government

6. It is important that Technology Incubators are able to support the companies through later stages, so I will have greater expectations of provider's capability. Incubators need access to significant commercialisation capability, follow on investment capital, and international connections. This will be

supported by stronger administration of the programme, and changes to the repayable grants programme to ensure its effective operation.

Background

Knowledge intensive economies are more sustainable, diverse and productive

7. We know that knowledge intensive economies produce fewer emissions, are more complex, and are higher value. Knowledge is often produced in public research institutes and can have an impact through commercialisation, often through the formation of a new company. Companies can create transformative and disruptive change through the development of unique and specialised technology based on prior research investment – ‘deep tech’. These can introduce radical innovations, and create new industries and sectors.
8. However, international experience has shown that there is a significant divide between the development of a scientific innovation, and its successful commercialisation. Complex technology can require many years of investment and development to become market ready, and these ventures will often fail.
9. There is a lack of market interest in very early technologies due to long lead time to market, and highly uncertain and variable returns. Many of the broader benefits, such as economic transformation, do not go to the inventor or investors. However the technology, knowledge, and expertise around deep tech, when successful, is much harder for competitors to replicate, and is more likely to result in ongoing value that remains with its originators.
10. It is these ventures that offer the potential to develop future competitive advantages for New Zealand, and result in long-term transformation of the economy. Every innovation system faces this challenge, and all successful ones have some public intervention to address the gap. The Technology Incubator Programme policy seeks to increase the number of innovative firms in New Zealand based on deep tech.

Technology Incubators create and support new firms based on deep tech

11. The Technology Incubator programme is administered by Callaghan Innovation. There current three Technology Incubator providers are: Powerhouse, Astrolab, and WNT Ventures.
12. \$13.96m per year is appropriated from 2019 onwards. This pays for operational costs of the incubators, Repayable and Pre-Incubation Grants, and the administration costs, as well as some smaller innovation initiatives¹. \$3.56m is available for operational funding for a range of incubator programmes, of which \$1.45m is operational funding for the three Technology Incubators. About \$10m, goes to the Repayable and Pre-Incubation Grants for the Technology Incubator programme.

¹ These are Founder Incubators and Accelerators.

13. In theory, each Technology Incubator contains the expertise and access to capital to create a company based around an innovative 'deep tech' idea. Technology Incubators have a profit-driven focus to create and support deep tech businesses. They identify a promising idea or technology that may not have an associated entrepreneur, and build a business team. Their goal is to develop a start-up business until it is attractive to later stage investment - such as venture or strategic investors.
14. Technology Incubators help realise the value of investments into science and innovation and complement early stage investment capital markets. The model uses market incentives to align the interests of incubators with businesses, while providing a strong motivation for technologically skilled entrepreneurs to work with the incubators. The grants increase demand for intellectual property from research organisations as incubators seek opportunities to build firms.
15. Over time a capable and efficient Technology Incubator will become self-sufficient from equity returns, although international experience suggests this may be ten years or more. Currently, all Technology Incubators receive significant operational funding from Callaghan Innovation, will charge fees to start-ups or investors, and use Repayable Grants to purchase equity in the start-up.

Technology Incubators have access to Repayable Grants

16. Repayable Grants of up to \$450,000 are available from Callaghan Innovation for a Technology Incubator to invest in a deep tech start-up. The Technology Incubator must co-invest \$150,000 from its own investment fund. The start-up then treats the Repayable Grant as a loan, repaying Callaghan Innovation at a rate of 3% of revenue – with interest accumulating at the Official Cash Rate (currently 1.75). Repayments are cycled back into the Grant programme.
17. Technology Incubators are expected to use their investment to purchase up to 30-50% of equity in the start-up. Requiring 30-50% equity is intended to ensure that only sufficiently early stage and complex start-ups are invested in. The Technology Incubator may also charge fees to the start-up, capped at 15% of the Repayable Grant.
18. Repayable Grants are designed to incentivise the technology-focused incubators to seek out deep tech opportunities. They are encouraged to engage in early stage proposals which would normally be considered too uncertain and high-risk to attract private funding. The subsidised capital allows technology incubators to invest in a wider variety of new opportunities, and develop clusters of commercialisation capability.
19. The co-investment from the Technology Incubator is to ensure they have 'skin in the game', and that their interests are aligned with the start-up and with government. The requirement that the Technology Incubator be able to raise a fund filters out operators without market credibility.

Pre-Incubation Grants

20. Technology Incubators also have access to Pre-incubation Grants of up to \$35,000 to test the commercial viability of an idea. These grants do not require co-funding. If a start-up is approved for a Repayable Grant the Pre-incubation Grant will count towards the total grant amount.

I am proposing changes to the Technology Incubator programme

21. The Technology Incubator programme was a pilot for five years. The Ministry of Business, Innovation and Employment has reviewed the policy, and I believe the policy settings can be adjusted to better enable commercialisation of science, and fit the New Zealand context.

22. MBIE's review highlighted that while the pilot programme has had some Commercial Information



23. The changes I propose will be implemented through a new request for proposals (RFP) for Technology Incubator providers, to be run by Callaghan Innovation early in 2019.

I propose to set more ambitious requirements for Technology Incubators

24. Although the New Zealand innovation system has improved, the Technology Incubator programme has not been transformational, in particular because start-ups face a lack of forward pathway. The success of the programme has been hindered by the small size of New Zealand's commercialisation talent pool. To address this I will require Technology Incubators to demonstrate a significant degree of commercialisation expertise, access to sufficient existing capital (such as a dedicated or related venture fund), and the international connections required to produce truly global enterprises.

25. My proposal for the future of the Technology Incubator Programme requires the ambition to attract talent, connections and market pathways, including from international providers where necessary. We can draw on these if we build relationships, and provide the right environment for international partners. This will provide a pathway for firms beyond the incubation stage. MBIE and Callaghan Innovation can leverage existing relationships to build partnerships between Government, New Zealand institutions, and international capability.

26. The requirements on Technology Incubator providers will be higher than the current standard. Free and frank opinions



I propose to change some settings around the repayable grants

- 27.** I propose raising the quantum of the Repayable Grant to up to \$750,000 (matched by up to \$250,000 from the incubator, meaning total investment of \$1m) to provide a longer runway, and more rapid growth from start-ups. Stakeholders have noted that a total investment of \$600,000, as is the case under current settings, is not sufficient to capitalise a promising start-up to the next stage in fund raising. This would also require more credible commitments from Technology Incubators as they would have to co-invest \$250,000.

I propose to reduce the level of allowable incubation fees, but allow for increased operational funding for incubators where appropriate

- 28.** Incubators are able to charge fees to incubated start-ups of 15% of the repayable grant (\$90,000). Some stakeholders felt this was too high, and have noted that it may encourage incubators to focus on short-term incubation services and the fees for them, rather than the long-term success of the start-up. To ensure incentives are set appropriately, I propose to reduce the cap on incubation fees to 5% of the repayable grant (up to \$50,000 under the new grant limit).
- 29.** However, to ensure the successful incubators are able to operate effectively in the medium term until the equity positions they have taken in incubated firms have matured, I propose to allow for higher funding for direct operational costs. I propose to direct Callaghan Innovation to determine this level of funding through its RFP process for providers, up to a total of \$3m per year across all providers.
- 30.** Increasing the quantum of the repayable grants and operational funding will put pressure on the existing funding. Confidential advice to Government

Confidential advice to Government

- 31.** Confidential advice to Government

2 Confidential advice to Government

The programme will be scaled and aligned with Government priorities

32. Adopting the changes I propose above will mean a more successful, more transformative, and, in the medium term, much larger programme of technology incubation. Providing further support to broader technology incubation capability, increasing operational scrutiny of repayable grants and the performance of the incubators, and attracting significant capability for new incubators will require a greater level of funding.

Confidential advice to Government

33. Negotiations

34. Confidential advice to Government

Timing and process

35. Existing contracts with providers expire in December 2019. Callaghan Innovation will start a RFP process in February 2019. If you agree with these proposals, MBIE will work alongside Callaghan Innovation to implement the policy changes as appropriate.
36. Decisions on successful providers will be made by an assessment panel comprising Callaghan Innovation, independent experts, preferably with international experience, and senior officials from relevant Government agencies.

Consultation

37. Callaghan Innovation, The Department of Prime Minister and Cabinet, and The Treasury have been consulted.
38. MBIE has also directly engaged with the sector, and consulted with existing Technology Incubator providers.

Financial Implications

39. The policy changes proposed in this paper will have an effect on expenditure within appropriations for which I am responsible.

Confidential advice to Government

Other Implications

40. There are no other implications.

Disability Perspective

41. This paper is consistent with the Convention on the Rights of Persons with Disabilities, the New Zealand Disability Strategy and the Disability Action Plan 2014-2018.

Publicity

42. A press release is planned. It will be useful to manage the release by providing the changes, new approach, and future of the programme to the media.
43. This will be managed through a press release coordinated by MBIE and Callaghan Innovation.

Proactive Release

44. This paper will not be proactively released, due to commercial considerations. MBIE and Callaghan Innovation will develop key messages to announce to the sector.

Recommendations


The Minister of Research, Science and Innovation recommends that the Committee:

1. **Note** that a more knowledge intensive economy is integral to achieve Government objectives of:
 - Supporting a thriving nation in the digital age through innovation, and economic opportunities and;
 - Creating opportunities for productive businesses to enable transition to a sustainable and low-emissions economy.
2. **Note** there is a gap between generating knowledge, and the impact of knowledge.
3. **Note** that the Technology Incubator programme is designed to bridge this gap to create more innovative companies based around complex research.
4. **Note** that while the pilot Technology Incubator programme has had some successes, MBIE's review of the pilot has highlighted opportunities to improve on the programme and its impact.
5. **Agree** to implement changes to the programme via a request for proposals (RFP) process to be administered by Callaghan Innovation early in 2019

6. **Agree** to establish more ambitious requirements for Technology Incubator providers to have expertise, international connections, and a pathway to success beyond the incubator.
7. **Note** that repayable grants of up to \$450,000 are available to incubated companies, recognising the difficulty of pricing early-stage technology and the high degree of risk involved in investing in technology at this stage.
8. **Note** that repayable grants are currently provided on the basis that the investment is matched on a 1:3 basis by the technology incubator (meaning a total investment of \$600,000).
9. **Note** that many stakeholders consulted through MBIE's review felt that total investment of \$600,000 was insufficient to take early-stage technology companies to the next stage of investment.
10. **Agree** to increase the maximum amount of repayable grants available to incubated companies from \$450,000 (matched by \$150,000 of co-funding from the incubator) to \$750,000 (matched by \$250,000 of co-funding from the incubator).
11. **Agree** to reduce the proportion of this total funding a technology incubator may charge in incubation fees from 15% (a current maximum of \$90,000) to 5% (a maximum under the new grant limit of \$50,000).
12. **Agree** to increase direct funding to technology incubators for operational costs, up to a total of \$3m per year across all incubators.
13. **Agree** to allow Callaghan Innovation to determine operational funding for each technology incubator, on the basis of the RFP process.
14. Confidential advice to Government [REDACTED]
15. Confidential advice to Government [REDACTED]
16. Confidential advice to Government [REDACTED]
17. Negotiations [REDACTED]
 - a) Negotiations [REDACTED]
 - b) Negotiations [REDACTED]
 - c) Negotiations [REDACTED]

18. **Agree** that decisions on successful providers will be made by an assessment panel comprising Callaghan Innovation, independent experts, preferably with international experience, and senior officials from relevant Government agencies.

19. Confidential advice to Government



Authorised for lodgement

Hon Dr Megan Woods

Minister of Research, Science and Innovation

PROACTIVELY RELEASED