MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

COVERSHEET

Minister	Hon Dr Megan Woods	**Portfolio**	Research, Science and Innovation
Title of Cabinet paper	Extending Refundability for the Research and Development Tax Incentive	**Date to be published**	12 July 2019

List of documents that have been proactively released		
Date	**Title**	**Author**
14 May 2019	Extending Refundability for the Research and Development Tax Incentive	Office of the Minister of Research, Science and Innovation, Office of the Minister of Revenue
22 May 2019	Cabinet Economic Development Committee minute: DEV-19-MIN-0119	Cabinet Office
10 May 2019	Regulatory Impact Statement: R&D Tax Incentive – Refundability	MBIE, IR
13 November 2018	R&D Tax Incentive: Phase 2	MBIE, IR
13 February 2019	R&D Tax Credit: Phase 2 Policy Proposals	MBIE, IR
11 April 2019	Draft Cabinet paper: R&D Tax Incentive – Refundability	MBIE, IR, Callaghan Innovation
2 May 2019	R&D Tax Incentive: Ministerial meeting to discuss refundability	MBIE, IR
17 May 2019	Talking points for the DEV Cabinet paper: Extending Refundability for the R&D Tax Incentive	MBIE
27 June 2019	R&D Tax Incentive – refundability and small innovative firms	MBIE, IR

Information redacted **YES / ~~NO~~** *(please select)*

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.

Coversheet: Research and Development Tax Incentive - Refundability

Advising agencies	Ministry of Business, Innovation and Employment (MBIE) Inland Revenue (IR) The Treasury Callaghan Innovation
Decision sought	Broader refundability for the R&D Tax Incentive
Proposing Ministers	Hon Dr Megan Woods (Minister for Research, Science and Innovation) Hon Stuart Nash (Minister of Revenue)

Summary: Problem and proposed approach

Problem Definition

What problem or opportunity does this proposal seek to address? Why is Government intervention required?

The Taxation (Research and Development Tax Credits) Act (the Act), implements an R&D Tax Incentive in New Zealand. The R&D Tax Incentive applies from 1 April 2019 for most businesses. Under the scheme, firms can receive a tax credit equal to 15% of their eligible R&D expenditure. Profitable firms will be able to use this tax credit to reduce their income tax liability. The Act allows for certain firms that have little or no income tax to pay to receive a R&D tax credit refund of up to $255,000 per income year. Credits that are not refunded can be carried forward to future income years provided shareholder continuity criteria are met.

The limited refundability rules in the Act are based on the R&D Tax Loss Cash Out scheme. Under these rules, eligibility for refunds is restricted to unlisted companies that meet a 20% R&D wage intensity test and do not derive non-dividend exempt income.

These criteria mean that many businesses will not be eligible for refundable tax credits under the R&D Tax Incentive. Partnerships, trusts, listed companies, and companies who receive some exempt income or do not meet the wage intensity test will be excluded. Additionally, certain atypical organisations, such as levy bodies, some Māori entities, charities, and local authorities, will be excluded. It is desirable to ensure the law provides clarity as to whether these entities should benefit from the R&D Tax Incentive through the design of a more comprehensive refundability policy.

The limited timeframe for developing the Act meant it was not possible to design broad refundability rules for year one. The Government has committed to developing a more comprehensive policy for refundability to apply from year two of the Tax Incentive.

The rationale for the R&D Tax Incentive and the importance of raising business expenditure on R&D (BERD) was explained in the previous Regulatory Impact Statement (RIS) for the R&D Tax Incentive (http://taxpolicy.ird.govt.nz/publications/2018-ria-rdtc-bill/overview).

This RIS is focused on options to broaden the refundability of the R&D Tax Incentive. If refundability is not broadened, it is expected that the Tax Incentive will not be as effective as intended at incentivising additional R&D.

Proposed Approach

How will Government intervention work to bring about the desired change? How is this the best option?

Broadening eligibility for refundability

The proposed approach is to change the existing limited refundability rules so that R&D tax credit refunds are available to more businesses.

It is proposed that all businesses would be eligible for refundability, irrespective of their legal form or whether they are listed. The 20% wage intensity test would also be removed.

We expect that making the tax credit available to more R&D-performing firms (and higher incentives for firms to engage in R&D) will increase the amount of R&D undertaken, which will in turn result in an increase in knowledge creation, employment, and labour productivity growth. Knowledge created by R&D flows between firms because of worker mobility, product imitation and reverse engineering.

This means firms do not capture the full benefits of their R&D and so they underinvest relative to the socially optimal level. This is why most governments have a policy that will stimulate firms to undertake more R&D.

Providing refundable tax credits will enhance the effectiveness of the R&D Tax Incentive at stimulating growth in BERD, because it provides cash closer to the point when firms, particularly R&D intensive firms in the early stages of their development, are undertaking their R&D.

This means the tax credit is more likely to incentivise the performance of additional R&D by businesses, which is the goal of the policy.

Broadening the refundability available from that provided for year one of the R&D Tax Incentive has always been the intent, and will broaden the reach and effect of the R&D Tax Incentive.

Ensuring integrity and managing fraud risk

In addition to extending refundability to all businesses, it is proposed to remove the existing $255,000 cap on refundability. Instead, it is proposed to limit the amount of credits refundable to businesses through a cap based on the amount of payroll taxes paid by each business. This payroll cap would include PAYE, fringe benefit tax (FBT), employer superannuation contribution tax (ESCT) and withholding tax on schedular payments (WT) paid by a business.

A payroll cap will help ensure the integrity of the scheme is maintained. It is necessary to reduce the risk of fraudulent claims for R&D tax credit refunds which have been problematic (along with an associated fiscal risk) in other jurisdictions with refundable R&D tax credits.

The payroll cap would not apply to limit refundability of R&D tax credits resulting from payments to Approved Research Providers because it will be easy to verify that these payments have been incurred by a business.

The payroll cap would not apply to limit the R&D tax credits refunded to levy bodies. Levy bodies are empowered to collect levies by statute, definitely have an economic presence in New Zealand, and consequently pose a reduced risk that refunded R&D tax credits will be unrecoverable.

Exempt income recipients

Recipients of exempt income are currently ineligible for limited refundability, unless the only exempt income they receive is from dividends.

Without refundability, entities that only derive exempt income, such as charities, are unable to receive any cash benefit from the R&D Tax Incentive. This is because they do not have any income tax to pay. As these entities are outside the tax system, it is proposed that they should not benefit further from incentives provided from within the tax system and that they should be ineligible for the R&D Tax Incentive.

It is proposed that an exception apply for levy bodies, however, which do not receive the same tax concessions as charities (such as donee tax credit status, GST and FBT concessions). The R&D performed by and funded through levy bodies is fundamentally business R&D. Accordingly, it is proposed that levy bodies are eligible for the R&D Tax Incentive (including refundability), even if they receive exempt income.

Further details and the implications of this proposal for particular atypical organisations (including charities, Māori businesses, and local authorities) are discussed further at 3.2.

Section B: Summary impacts - benefits and costs

Who are the main expected beneficiaries and what is the nature of the expected benefit?
Businesses in tax loss, or with insufficient income tax liability to fully utilise non-refundable tax credits, will be the main beneficiaries from broader refundability. Refundability can be particularly beneficial for young, innovative firms, at the stage of investing in developing and launching their products (Appelt et al., 2016). The population of firms performing R&D and in a tax loss position is estimated at 750-1200. These are the expected beneficiaries. Under current rules only 350-650 firms are expected to qualify for refundability, and of those 65-130 are expected to hit the cap on refundability. Partnerships, trusts, listed companies, companies who receive some exempt income or do not meet the wage intensity test, and atypical organisations such as levy bodies and some Māori business entities will also benefit from the R&D Tax Incentive through the design of a more comprehensive refundability policy.

Where do the costs fall?

Fiscal costs

The budget for the Tax Incentive provides for the fiscal cost of full refundability. In Budget 2018 the Government appropriated $1,020 million over the first four fiscal years for the R&D Tax Incentive. On 10 September 2018, Cabinet agreed to reprioritise the remaining funding ($528 million) already allocated for Growth Grants over the same period [CAB-18-MIN-0434 refers].

We anticipate that allowing broad refundability will increase the take-up of the Tax Incentive compared to limited refundability. This in turn will increase the R&D expenditure performed by firms, and the amount claimed under the Tax Incentive. These fiscal costs will be borne directly by Government and indirectly by the taxpayer.

Additional fiscal cost due to broader refundability, compared with the limited refundability available in year one of the R&D Tax incentive, could be for the below reasons:

- Increased R&D activity from existing R&D performers
- Firms new to R&D enter the scheme

We have estimated the fiscal costs of the R&D Tax Incentive with full refundability to be approximately $1,345 million over the first four fiscal years for the R&D Tax Incentive (from when it comes into effect on 1 April 2019 through until 30 June 2022). The model used to prepare these estimates assumed that firms claim the full amount of the eligible R&D expenditure to which they are entitled in the year in which it is incurred. More specifically, it assumes that firms in loss claim the full amount of the Tax Incentive, even without full refundability.

Anecdotal evidence from overseas jurisdictions shows that those that have allowed more generous refundability have experienced much greater rise in the costs of their R&D tax incentives. In Australia, R&D in the part of the scheme that was refundable (which applied to small-and-medium enterprises) grew at approximately 15 percent per annum whereas R&D in the non-refundable part experienced no growth.

We cannot extrapolate exactly from the Australian experience to New Zealand because in New Zealand broad refundability will be available to all businesses, regardless of size (subject to exclusions discussed above). Moreover, without further analysis, it is not possible to conclude that the presence of refundability drove all the higher growth in Australia; a number of other factors are likely to have also contributed. Nevertheless, if New Zealand were to experience R&D growth equivalent to the refundable part of the Australian scheme, we have estimated that it might add approximately $40 million (over the period of the appropriation) to our estimates of the fiscal costs of the R&D Tax Incentive.

Administration costs

The increased attractiveness of the regime will increase legitimate claims but may also increase fraudulent claims. The increased risk of fraudulent claims may mean more administrative costs to ensure the legitimacy of claims. However, as the R&D Tax Incentive scheme has already been designed with relatively thorough checks on the R&D activities that are the subject of the claims, it is expected that any increase in administrative costs resulting from broader refundability will be negligible.

Compliance costs

Compared with the limited refundability rules in year one, compliance costs to firms

under broader refundability should either decrease or stay the same. The year one refundability rules use the existing corporate eligibility and wage intensity criteria from the R&D tax loss cash-out rules, which are relatively complex. The proposed eligibility rules from year two are simpler, so compliance costs could decrease under the proposals. In addition, more firms will have their credits fully refunded rather than carrying them forward. This reduces the complexity of tracking historic credits and testing for continuity breaches.

What are the likely risks and unintended impacts, how significant are they and how will they be minimised or mitigated?

Risks

There are three main risks associated with broader refundability which must be considered as part of the design. These are fiscal risk, fraud risk, and integrity risk.

Fiscal risk

Overseas experience indicates that R&D and hence fiscal cost growth is faster for the refundable parts of R&D tax credit schemes. This is not a risk in and of itself, because an increase in expenditure because of increased R&D would go towards achieving the objective of the incentive. A 'payroll' cap is proposed to help mitigate fiscal risk associated with illegitimate R&D tax credit claims. If the Government decided to constrain expenditure on the incentive in future, the tax credit rate of 15% could be adjusted downwards.

Fraud risk

This is the risk of a person deliberately attempting to extract money from the tax system dishonestly. Broader refundability provides additional incentives to perpetrate fraud and allows additional opportunities to perpetrate fraud. It is more difficult to recover money paid out in cash via a refund than to cancel a tax credit.

To minimise the risk of fraudulent claims, the proposed 'payroll' cap ensures the existence of a business and its economic presence are verified before a R&D tax credit refund is paid to the business.

The risk of fraudulent claims will also be mitigated through the following steps:

- An in-year approval process (included in the Act), which requires claimants to obtain approval of their R&D activities before they file a claim for their R&D tax credits.
- A $50,000 minimum threshold of eligible expenditure[1] (included in the Act). Experience in other countries, such as the United Kingdom, indicates that without a minimum threshold there can be a flood of smaller, lower-quality tax credit claims.

Integrity risk

This is the risk that compliance with the R&D Tax Incentive scheme may deteriorate if it is perceived to be abused by some claimants. This risk can be mitigated by ensuring the Tax Incentive is seen to be robust. In-year approval (included in the Act) and the proposed 'payroll' cap should help mitigate this integrity risk.

Learning from overseas experience

Most overseas R&D tax credit schemes with refundability have some constraints,

[1] There is an exception for R&D activities carried out by an Approved Research Provider.

such as capping the amount of refundable tax credit to the amount of other taxes paid by a business (such as PAYE paid on behalf of employees). Appendix 1 summarises the policies applied in other OECD countries that provide refunds and describes the strengths and drawbacks of each policy.

There is no uniformity as to how constraints are applied, but some broad observations are:

- Some constraint on refundability is the norm. A system with no restrictions on refundability would be an outlier amongst OECD countries.
- The different ways in which refundability is limited often reflect differences in the underlying tax incentive scheme.
- Some countries limit refundability to SMEs and start-ups.
- It is relatively common to limit refunds by reference to other taxes paid by the firm.

A common approach in other jurisdictions is to limit refunds to the amount paid in other taxes such as PAYE.[2] This ensures a firm has a tangible economic presence in the country where the claim is being made, the amount refunded is commensurate to activity in the jurisdiction and it reduces the risk that the claim is made by a non-existent entity. Considering the risks associated with refundability and learnings from overseas, we propose broadening the refundability available in year one but having some constraints to mitigate risk.

Constraints to mitigate the risks associated with broader refundability

The proposal to broaden eligibility for refundability includes a 'payroll' cap on refunds to mitigate the fraud, fiscal, and integrity risks associated with paying out cash.

It is proposed that all firms are entitled to a full refund of their R&D tax credits, to the extent their R&D tax credits are equal to or less than the amount of 'payroll' taxes paid by a firm in the relevant income year (proposed payroll cap).[3]

The proposed payroll cap would not apply to limit tax credits resulting from payments to Approved Research Providers.

The proposed payroll cap would not apply to R&D tax credits refunded to levy bodies.

The proposed payroll cap is designed to prevent refundable tax credits being paid out to firms who are fraudulently claiming the tax credit. Limiting R&D tax credit payments to the amount of PAYE paid by a firm, as is done in many overseas jurisdictions, is a simple and unobtrusive measure but overlooks that some firms may legitimately pay little PAYE.[4] Consequently, it is proposed that additional payroll taxes paid be included to reduce the impact of this constraint.

Payments to Approved Research Providers will not be capped as it will be easy to verify that these payments have actually been incurred by a firm. That is, R&D credits generated from eligible expenditure on Approved Research Providers will be refundable, even if a business has not paid any payroll taxes.

Levy bodies may have low 'payroll' taxes where R&D is largely contracted out, but

[2] For most firms, the amount of PAYE they pay on behalf of employees will exceed 15% of the amount of R&D they undertake because all employees in the firm will contribute to the PAYE total whereas R&D is usually only one part of the firm's activities. There will, however, be some firms that (quite legitimately) do not pay PAYE.

[3] Payroll taxes would include PAYE, FBT, employer superannuation contribution tax (ESCT) and withholding tax on schedular payments (WT).

[4] For instance, many start-up firms will limit their financial risk by employing staff on contract rather than recruiting them as permanent members of staff. These staff employed on contract may choose to have withholding tax (WT) paid by the firm on their behalf.

they are not subject to the cap due to reduced risk that refunded R&D tax credits will be unrecoverable.

Conclusion

The above constraint is not anticipated to restrict refunds for the vast majority of R&D performers. It means that all firms would have some immediate benefit and a few would have less than full refundability. Given the R&D Tax Incentive scheme is relatively broad and accessible, the proposed refundability restrictions do not fundamentally alter the incentives of the scheme. Overall, and compared with most other jurisdictions, the proposed policy for New Zealand represents a comprehensive approach to refundability.

Identify any significant incompatibility with the Government's "Expectations for the design of regulatory systems".

There is no incompatibility between this regulatory proposal and the Government's 'Expectations for the design of regulatory systems'.

Section C: Evidence certainty and quality assurance

Agency rating of evidence certainty?

We are confident of the evidence that refundable R&D tax credit schemes are effective at increasing business R&D. This is based on a range of international studies. It is difficult to predict the actual level by which R&D will increase as a result of broader refundability. Written and oral submissions on the Act emphasised the importance of refundability for supporting R&D. Consultation recently undertaken with businesses on broader refundability has reaffirmed the importance of refundability for incentivising R&D intensive firms to continue to invest in and grow their R&D activities.

To be completed by quality assurers:

Quality Assurance Reviewing Agency:

MBIE's Regulatory Impact Analysis Review Panel has reviewed this Regulatory Impact Statement.

Quality Assurance Assessment:

The Panel considers that the information and analysis summarised in the Regulatory Impact Statement meets the criteria necessary for Ministers to make informed decisions.

Impact Statement: R&D Tax Incentive - Refundability

Section 1: General information

Purpose
This analysis and advice has been produced to inform key policy decisions to be taken by Cabinet around broadening the refundability available under the R&D Tax Incentive. MBIE and IR are solely responsible for the analysis and advice set out in this Regulatory Impact Assessment, except as otherwise explicitly indicated.
Key limitations or constraints on analysis
Estimating the impact of broader refundability on the amount of R&D undertaken and its overall impact on the economy is complicated. Evidence on the impact on both of these is imprecise. There has been no analysis on or impact evaluation of the R&D tax incentive implemented in New Zealand in 2008 (which was fully refundable). So there is no New Zealand evidence to guide our analysis of the impacts of refundability. As a result, the estimates of the anticipated response are based upon evidence from international studies that may not correspond to the situation in New Zealand. Nevertheless, this is the best information available.
Responsible Managers (signature and date)
   Kirsty Hutchison Manager – Innovation Policy Ministry of Business, Innovation and Employment 10 / 05 / 2019      Keith Taylor Policy Manager Inland Revenue 10 / 05 / 2019

Section 2: Problem definition and objectives

2.1 What is the context within which action is proposed?
New Zealand has a low overall expenditure on R&D[5] primarily due to low business investment in R&D in New Zealand. New Zealand's low business investment in R&D can be explained, in part, by its industrial structure. New Zealand firms have low R&D intensity (Mazoyer, 1999); the size of traditionally R&D intensive industries (such as pharmaceuticals and aircraft manufacturing) in New Zealand is small (Di Maio and Blakeley, 2004); and there are few very large firms, who tend to be more research-active (OECD, 2017). Evidence suggests that there are other reasons for the low business investment in R&D. These include returns to innovation being relatively low in New Zealand

[5] New Zealand's R&D spending in 2018 was equal to 1.37 percent of gross domestic product.

(Wakeman and Conway, 2017), which means New Zealand firms do not have the same incentive to invest in activities that will increase their innovative output. The average rate of public support for business R&D is also "well below the socially efficient level indicated by international empirical studies" (OECD, 2017). This evidence indicates that there is scope for productivity gains from increasing the overall level of support for R&D expenditure.

The Government announced a goal of increasing New Zealand's R&D expenditure to 2 per cent of GDP by 2027. To reach this target, a significant amount of the growth in R&D expenditure is expected to come from business.

New Zealand BERD is relatively low and remains concentrated among a small set of firms. To achieve a further boost in BERD, as well as to transform the economy to become more knowledge intensive, requires broadening the base of R&D performing firms within New Zealand while continuing to increase the R&D expenditure of existing R&D-performing firms.

R&D performing firms, particularly at the early phase of their development, will often be loss-making. Therefore, providing refundable tax credits to businesses in tax loss is a key element of the effectiveness of the R&D Tax Incentive in achieving significant growth in BERD. Without a refundable tax incentive businesses in tax loss will have minimal incentive to invest in additional R&D.

2.2 What regulatory system, or systems, are already in place?

The Taxation (Research and Development Tax Credits) Act (the Act), introduced in October 2018, implements an R&D tax incentive in New Zealand. The R&D Tax Incentive scheme applies from the beginning of the 2019/20 income year. The Act allows for firms that make a loss for tax purposes and satisfy certain criteria to receive a refund of up to $255,000 of tax credits per income year. Credits that are not refunded can be carried forward to future income years provided shareholder continuity criteria are met.

Appendix 2 provides examples that illustrate how without refundability, firms do not receive a cash benefit from a tax credit if they are in loss or have insufficient income tax liability.

The Act also includes an in-year approval process, which requires claimants to obtain approval of their R&D activities before they file a claim for their R&D tax credits.

In addition to the R&D Tax Incentive, there are Callaghan Innovation grants which provide R&D subsidies.

These grants include:

- Growth Grants: A non-discretionary grant paid to all businesses that spend more than $300,000 and 1.5 per cent of revenue on R&D over the prior two years. The grant funds 20 per cent of a business R&D programme up to a limit of $5 million per year (i.e., $25m of R&D spending), initially for a period of three years with automatic two-year extensions conditional on continuing to meet the criteria. The aim is to provide experienced R&D performers with the funding certainty and stability they need to grow their R&D spending in the long term. There were 316 recipients in 2017/18 at an (estimated) fiscal cost of $172.2M. The Growth Grant scheme will cease on 31 March 2021. No new applications can be made, but existing Growth Grant recipients can extend their Growth Grants until the scheme end date.

- Project Grants: A discretionary grant, allocated to less-experienced R&D performers that do not meet the conditions for a Growth Grant for R&D. It funds 40 per cent of the first $800,000 of the eligible costs of a pre-specified project and 20 per cent of the remainder. There were 344 recipients in 2017/18 at an estimated fiscal cost of $20.3M.

There are restrictions on the availability of the R&D Tax Incentive for recipients of existing grants.

New Zealand also provides support for businesses performing R&D through the R&D loss tax credit (also known as the R&D tax-loss cash out). New Zealand-resident businesses are able to apply for 28 per cent of their losses associated with eligible R&D expenditure (up to a cap) to be paid out in cash, rather than carrying forward those losses until future years. 350 firms currently claim R&D loss tax credits.

There are also tax deductions available for R&D expenditure, and the ability to defer these tax deductions so as not to lose them due to a breach of the shareholder continuity rules.

2.3 What is the policy problem or opportunity?

The objective of the R&D Tax Incentive is to address New Zealand's low levels of R&D, specifically by increasing BERD, which has a central role in driving innovation and economic growth.

The R&D Tax Incentive as introduced in the Act has limited refundability. Limited refundability is available to unlisted companies who satisfy corporate eligibility and wage intensity criteria, up to a cap of $255,000. Any remaining R&D tax credits can be carried forward to the next income year provided shareholder continuity requirements are met.

Entity eligibility

Limited refundability is not available for entities, such as levy bodies, which receive tax exempt income (other than dividends). Discussions of the proposals with levy bodies has indicated that should levy bodies be ineligible for refundable R&D tax credits, this could lead to some levy body members preferring to fund their own R&D. The incentive is not intended to change business behaviour in this way.

Limited refundability is also not available for listed companies, partnerships, or trusts. This is problematic, because it is likely that – without refundability – some of these businesses will have insufficient income tax liability to benefit from their R&D tax credits. The Tax Incentive is intended to have broad application and treat all businesses the same, irrespective of their legal form. However, excluding some types of firm from the Tax Incentive biases it toward firms in traditional arrangements (particularly, limited liability companies).

Capped refundability

Some businesses may be eligible for limited refundability but unable to cash out all of their R&D tax credits because of the $255,000 cap. These businesses will have to carry their R&D tax credits forward into future years until they have sufficient income tax liability to utilise their credits. The ability to carry the credit forward is subject to a shareholder continuity rule that requires a minimum of 49% shareholder continuity to be maintained in order for R&D tax credits to be carried forward. This is problematic, because R&D intensive start-ups are more likely to undergo a significant change in their shareholder base when they seek to raise capital through new investors.

2.4 Are there any constraints on the scope for decision making?

The Government has introduced the R&D Tax Incentive and indicated that it wants to expand the coverage of refundability.

The Government has committed to developing a more comprehensive policy for refundability from year two of the Tax Incentive (corresponding to businesses' 2020/21 income year). There is a need to use existing legislative vehicles to achieve enactment of policy changes in time for them to apply from year two of the Tax Incentive.

2.5 What do stakeholders think?

This proposal has been informed by input from a wide array of private sector organisations.

The importance of broad refundability in incentivising business investment in R&D was a strong theme from the consultation conducted by MBIE, Inland Revenue and Callaghan Innovation following the release of the Government Discussion Document on the R&D Tax Incentive in mid-2018. The need for broader refundability was also emphasized in submissions received by the Finance and Expenditure Select Committee on the Bill, and through additional stakeholder meetings.

MBIE, Inland Revenue and Callaghan have discussed refundability proposals with the Corporate Taxpayers' Group; Chartered Accountants Australia and New Zealand; representatives from PwC, KPMG, Deloitte and EY; approximately 25 representatives from R&D performing businesses in tax loss or with insufficient taxable income to fully use non-refundable R&D tax credits; levy bodies; charities; and Māori business representatives. These discussions have helped shape the broader refundability proposals, and have highlighted the desirability of broad eligibility and an accessible process.

Agencies asked stakeholders to consider the impact of a $5 million cap and a PAYE cap (used as a proxy to test tangible economic presence).

Feedback on $5 million cap

Stakeholder engagement revealed that there were a small number of established R&D performers who would be constrained by a $5 million cap. For example, a business in a loss making position undertaking around $80 million of R&D annually would be eligible for $12 million of R&D tax credits. Under a $5 million cap the business would receive a $5 million refund and would have to carry forward the remaining $7 million of R&D tax credits into future years. Because the business spends a large amount of R&D on an on-going basis they are unlikely to be able to fully cash out their accumulation of R&D credits carried forward.

There were also a number of established R&D performers who valued the security refundability would bring to their R&D programmes. These businesses are mainly in a tax-paying situation but depending on market fluctuations they could be in a temporary loss-making position in future. Refundability would give these firms surety, allowing them to continue their R&D investment during market down-turns. Some of these established R&D performers would also be constrained by a $5 million cap.

The proposal for broader refundability removes the previously proposed $5 million cap on refundability.

Feedback on PAYE cap

The PAYE cap, which would limit the amount of R&D tax credits refunded to a firm to the amount of PAYE paid by the firm in the relevant year, was seen as problematic.

Stakeholders advised that a PAYE cap would significantly constrain the benefit that loss-making start-ups would get from the credit. Many start-ups that perform R&D have few employees and rely on contractors to develop their business because of the comparative flexibility afforded by contracting arrangements. R&D intensive start-ups may have fewer non-R&D employees (compared with larger firms), and may also have a higher proportion of non-employee R&D expenditure (such as expenditure on capital assets or consumables).

Tangible economic presence test

As a result of the stakeholder feedback on the two options above, officials explored a tangible economic presence (TEP) test. The TEP test developed would have allowed firms that did not satisfy a PAYE cap to be verified for TEP from either an external certifier (such as a chartered accountant or lawyer), or directly from Inland Revenue through additional checks.

Stakeholders preferred the availability of alternatives to the PAYE cap, and thought that multiple ways of establishing tangible economic presence were preferable to a one-size-fits-all approach.

Payroll taxes cap

Discussions with United Kingdom (UK) officials found that the risks of fraud in relation to refundability are more pervasive than previously considered.[6] UK officials suggested that relying on a chartered accountant or practising lawyer for certification of TEP may not be robust, and that additional Inland Revenue checks might lead to administration resources being focused on audit rather than the approval of R&D activity.

As a result of this feedback, we have included an option that would include a 'payroll' taxes cap based on PAYE and other taxes paid by firms (including fringe benefit tax (FBT), employer superannuation contribution tax (ESCT) and tax voluntarily withheld from contractor payments (WT)) in order to lessen the impact on affected firms. It is also proposed that any tax credits resulting from payments to Approved Research Providers be fully refundable (so not subject to the 'payroll' taxes cap).

Stakeholder engagement on including additional payroll taxes (such as FBT, ESCT and WT) in the cap indicated that this would be an improvement over a PAYE cap. Although only a small proportion of contractors have opted into the voluntary withholding scheme, more may decide to opt into it if the payroll taxes cap were implemented.

Other mechanisms for providing support to R&D intensive start-ups will also be considered as part of further policy work, including reviewing the R&D tax loss cash-out and the Callaghan Innovation Project Grants.

[6] In the UK, HM Treasury and HMRC have released a consultation document 'Preventing abuse of the R&D tax relief for SMEs', April 2019, which proposes that a PAYE-related cap is reintroduced to the R&D tax credit scheme for SMEs. This policy has been driven by a concern over growing levels of fraud within the scheme since the removal of the PAYE cap.

Section 3: Options identification

3.1 What criteria, in addition to monetary costs and benefits, have been used to assess the likely impacts of the options under consideration?

The framework for assessing the key policy elements and trade-offs of the options under consideration is captured by the following criteria:

Criteria for which entities will be eligible for a refund

- Incentivise business expenditure on R&D.
- Tax-exempt organisations that sit outside the tax system (do not pay income tax) should not benefit further from incentives provided from within the tax system.
- Provide clarity about which organisations are eligible for the R&D Tax Incentive.

Criteria for constraining the amount that is refundable

- Increased business R&D expenditure
- Mitigation of fraud risk/maintaining the scheme's integrity
- Minimise compliance costs for firms
- Maximise business certainty over time
- Administratively feasible
- Minimise fiscal costs/risk

3.2 What options are available to address the problem?

There are a range of options for how refundability could be broadened, including the types of entities that are eligible and the constraints that are placed on the scheme to manage risks that refundability creates, particularly to the integrity of the Tax Incentive.

Options for which entities will be eligible for a refund

The main options available are:

- The status quo
- General business entities
- Levy bodies
- Charities
- Local authorities
- Other tax-exempt organisations

Status quo

Under the status quo, limited refundability rules restrict eligibility for refunds to unlisted companies that meet a 20% R&D wage intensity test and do not derive non-dividend exempt income. These criteria mean that many businesses will not be eligible for refundable tax credits, including partnerships, trusts, listed companies, and companies who receive some exempt income or do not meet the wage intensity test. Additionally, certain atypical organisations, such as levy bodies, some Māori entities, charities, and local authorities, will be excluded.

General business entities

This change would make listed companies, partnerships and trusts eligible for refundability, and there would be no wage intensity requirement. This change will allow most Māori organisations to be eligible.

Levy bodies

Levy bodies would be eligible for refundability under this option.

Charities

Under this option charitable organisations that perform eligible R&D activities would be ineligible for refundable tax credits. Charities are currently treated as carrying on a business in New Zealand for the purposes of being eligible for the R&D Tax Incentive. Excluding charities means that this rule would be removed for consistency to ensure they are excluded from being eligible for the R&D Tax Incentive.

Excluding charities means that businesses wholly-owned by charities are excluded, because these are also considered charities. However, this option does not exclude other associated entities. This means if a tax paying business donates to a charity, even one controlled by that business, this would not invalidate the business's access to the R&D Tax Incentive. It would also mean that a charity could set up a partially controlled business entity, subject to the rules within the constitution of the charity, which could be eligible for the R&D Tax Incentive.

In relation to Māori organisations, a small number of post-settlement governance entities have registered as charities. As discussed above, businesses that are wholly-owned by these charitable entities would also be ineligible. Businesses that are partially controlled by these charities would be eligible for the R&D Tax Incentive.

Local authorities

Under this option local authorities would be ineligible for the R&D Tax Incentive. However, council controlled organisations would be eligible.

Other tax-exempt organisations

This option excludes tax-exempt organisations from being eligible to receive refunds. The exclusion would not apply to entities that receive exempt income from dividends (no change from the status quo) or to levy bodies.

Options for constraining the amount that is refundable

The main options available are:

- The status quo
- A PAYE cap
- A tangible economic presence (TEP) test
- A 'payroll' taxes cap

Status quo

The status quo limited refundability rules allow firms with eligible R&D expenditure that meet the corporate and wage-intensity eligibility rules to claim a maximum refund per year of $255,000.

A PAYE cap

A PAYE cap would allow firms with eligible R&D expenditure to have their R&D tax credits refunded up to a maximum amount equal to the amount of PAYE paid by the firm in the relevant income year.

A TEP test

A TEP test would allow firms with eligible R&D expenditure to have their R&D tax credits refunded as long as they satisfied a test of tangible economic presence, up to a maximum of $5 million per year. A TEP test would be designed to ensure that a

firm has 'skin in the game', and that it physically exists with premises and staff, rather than just existing on paper as a shell company.

A TEP test would be met where at least one of the following applied:

- A business's PAYE for the year is equal to or greater than their R&D tax credit claim. This ensures a proportionate TEP because the firm is paying tax on behalf of its employees and cannot take out more than it puts in to the tax system.
- A chartered accountant or practising lawyer has certified that a business has TEP. The certifier would testify to the firm's TEP, having actually met the staff/seen the premises.
- Inland Revenue has completed a review (for example, checking the tax-paying history of a business; visiting a business's site; and/or confirming the identity of shareholders or directors) and is satisfied that a business has TEP.
- A business's R&D tax credit claim only includes amounts paid to an approved research provider to perform R&D activities on their behalf. This provides an easily verified audit trail to determine TEP.
- If an organisation is established under statute (such as a levy body), the organisation would be deemed to have TEP.

The proposal – a 'payroll' taxes cap

Under the Proposal, firms that have insufficient tax liability would have their credits fully refunded, subject to the following constraint:

- R&D tax credits are refundable to the extent they are equal to or less than the amount of 'payroll' taxes paid by a firm in the relevant income year.[7]
- The proposed cap would not apply to limit tax credits resulting from payments to approved research providers.
- The proposed cap would not apply to R&D tax credits refunded to levy bodies.

Excess credits that are not refunded in a particular year can be carried forward subject to the continuity rules and can be refunded in future years, subject to the same conditions.

3.3 What other options have been ruled out of scope, or not considered, and why?

We have assumed the continuation of the R&D Tax Incentive with at least its existing limited refundability, so we have not considered the option of no tax incentive or no refundability.

[7] Payroll taxes would include PAYE, FBT, employer superannuation contribution tax (ESCT) and withholding tax on schedular payments (WT).

Section 4: Impact analysis

Entity eligibility for refunds

	General business entities	Levy bodies	Charities	Local authorities	Other tax-exempt organisations
Incentivising BERD	(++) This change would remove limitations on refundability by entity type, except for the existing exclusion of tax-exempt organisations. This would allow listed companies, partnerships and trusts to be eligible for refundability, and there would be no wage intensity requirement. This will allow most Māori organisations to be eligible. Making refundability broadly available to these entities would have a significant impact on incentivising BERD.	(++) The R&D performed by and funded through levy bodies is fundamentally business R&D and may result in benefits that are not fully captured by the relevant industries. Providing levy bodies with refundability is expected to positively impact BERD by encouraging industry-wide collaboration through levy bodies.	(0) Charities may perform R&D as part of their charitable purposes. The Tax Incentive is focussed on incentivising BERD, rather than all R&D generally. Charities that perform R&D already receive support from the tax system for their activities. A charity could set up a partially controlled business entity, subject to the rules within the constitution of the charity, which could be eligible for the Tax Incentive. This would also apply to a small number of post-settlement governance entities that are registered as charities. The exclusion for charities is not expected to have a significant impact on BERD.	(0) Although local authorities would not be eligible, council controlled organisations would be eligible. The exclusion for local authorities is not expected to have a significant impact on BERD.	(0) Although other tax-exempt organisations would not be eligible, they could still participate in joint ventures with other businesses that could be eligible. The exclusion for other tax-exempt organisations is not expected to have a significant impact on BERD.

	General business entities	Levy bodies	Charities	Local authorities	Other tax-exempt organisations
Tax-exempt organisations that sit outside the tax system (do not pay income tax) should not benefit further from incentives provided from within the tax system	(++) These entities generally sit within the tax system.	(0) Levy bodies receive levy payments from their members, which are generally taxable businesses.	(--) Charities sit outside of the tax system so do not pay income tax, receive GST concessions, and are exempt from FBT. These benefits mean that charities' cash flow is already enhanced by provisions in the tax system. They also benefit from the donor tax credit regime (which provides tax credits to those who donate to charities), so already receive government support.	(--) Apart from receiving tax exempt income, local authorities have the ability to raise the revenue required to perform R&D activities through rates.	(--) These entities generally sit outside of the tax system and do not pay income tax.
Clarity about which organisations are eligible	n/a	(+) Provides clarity that levy bodies are eligible for refundable R&D tax credits. Levy body members will not be disincentivised to fund their R&D through their levy body.	(+) Provides clarity that charities and their wholly-owned entities will be ineligible for the Tax Incentive, while partially controlled business entities could be eligible.	(+) Provides clarity for local authorities, as well as entities controlled by or associated with local authorities. Excluding local authorities was part of the original policy intent of the Tax Incentive, but this exclusion was not included in the Bill.	(+) Provides clarity that other tax-exempt organisations will be ineligible for the Tax Incentive.

Constraints on refundable amount

	Status quo	A 'payroll' taxes cap	TEP test	PAYE cap
Increased BERD	This is expected to limit refundability in year one to approximately 350-650 firms of whom 65-130 are expected to hit the cap on refundability and not be able to claim the full amount of the credit.[8] Evidence from overseas schemes indicates that refunds provide a more powerful incentive for firms to undertake R&D.	(++) A 'payroll' taxes cap would allow for broader refundability with wider coverage. It could constrain the benefit that some loss-making start-ups get from the credit, where a firm has a higher proportion of non-staff R&D expenditure (such as expenditure on capital assets or consumable). If applicable to year one, it would be expected to enable approximately 750-1200 firms to benefit from a full or partial refund.[9] The wider coverage and increased cash flow to businesses performing R&D is expected to lead to increased investment by those firms in R&D.	(++) A TEP test would provide a pathway for all genuine businesses to access refundability. This would have a positive impact on business expenditure on R&D. If applicable to year one, it would be expected to enable approximately 750-1200 firms to benefit from a full refund. The wider coverage and increased cash flow to businesses performing R&D is expected to lead to increased investment by those firms in R&D.	(+) A PAYE cap would allow for broader refundability with wider coverage, but would significantly constrain the benefit that loss-making start-ups would get from the credit. Many start-ups that perform R&D have few employees and rely on contractors to develop their businesses, because of the comparative flexibility afforded by contracting arrangements. R&D intensive start-ups may have fewer non-R&D employees (compared with larger firms), and may also have a higher proportion of non-employee R&D expenditure (such as

[8] The numbers of firms potentially eligible for refundability, and the amount of firms expected to hit the cap under the limited refundability rules are based on extrapolated numbers from multiple sources of data including the 2016 R&D Survey, the 2017 Business Operations Survey, information from Callaghan Innovation about Growth Grant recipients, and information from Inland Revenue about firms that access the R&D tax-loss cash out.

[9] The numbers of firms potentially eligible for refundability are based on extrapolated numbers from multiple sources of data including the 2016 R&D Survey, the 2017 Business Operations Survey, and information from Callaghan Innovation about Growth Grant recipients.

	Status quo	A 'payroll' taxes cap	TEP test	PAYE cap
				expenditure on capital assets or consumables). This would limit the impact on business R&D expenditure undertaken by this sector.
Mitigation of fraud risk / maintaining the scheme's integrity	Limited refundability mitigates some risk of large, one-off fraud, but does not provide protection against potentially high numbers of smaller fraudulent claims.	(++) A 'payroll' taxes cap would significantly mitigate the risk of fraudulent claims, as firms could not take out more from the tax system than they put in.	(0) A TEP test would mitigate some of the risk of fraudulent claims. However, overseas experience suggests that certification of TEP by external professionals may not be sufficiently robust, and that requiring Inland Revenue to conduct additional checks for TEP might lead to administration resources being focused on audit rather than the approval of R&D activity.	(++) A PAYE cap would significantly mitigate the risk of fraudulent claims, as firms could not take out more from the tax system than they put in.
Minimise compliance costs	The year one refundability rules use the corporate eligibility and wage intensity criteria from the R&D tax loss cash-out rules, which are relatively complex.	(0) Compliance costs to firms under a 'payroll' taxes cap should either decrease or stay the same. The proposed constraint on refunds will not apply to the majority of claimants and is easy to understand. Overall, compliance costs are likely to	(-) A TEP test with a range of measures that businesses could choose from would mean they could select the one that imposes the least additional compliance costs. However, if a firm chose to obtain professional certification or undergo	(0) A PAYE cap would be simple and have low compliance costs for firms. Overall, compliance costs are likely to decrease, but this effect is likely to be small.

	Status quo	A 'payroll' taxes cap	TEP test	PAYE cap
		decrease, but this effect is likely to be small.	additional checks by Inland Revenue there would potentially be material compliance costs. Overall, compliance costs may be higher.	
Maximise business certainty over time	Provides some uncertainty as firms' eligibility for refundability depends on meeting the wage intensity criteria each year. It also generates uncertainty about ability to take advantage of the Tax Incentive because the low cap on refundable amounts means more credits must be carried forward to future years and may be lost due to shareholder continuity breaches	(+) A 'payroll' taxes cap would provide increased business certainty, with broad and simple eligibility for refundability. Receipt of cash refunds each year rather than having to carry forward credits that may be lost due to continuity breaches will increase business certainty.	(+) A TEP test would provide business certainty that refundability could be accessed by pursuing one of the available options. Receipt of cash refunds each year rather than having to carry forward credits that may be lost due to continuity breaches will increase business certainty.	(+) A PAYE cap would provide relative business certainty, with the refundable amount changing based on what a firm pays to its employees. Receipt of cash refunds each year rather than having to carry forward credits that may be lost due to continuity breaches will increase business certainty.
Administratively feasible	Based on high-level estimates, Inland Revenue's cost of administering the R&D Tax Incentive is forecast to be up to $6m per annum.	(0) A 'payroll' taxes cap would be easy to administer and is expected to have no or negligible additional effects on administrative feasibility.	(-) Most options under a TEP test would be easy to administer, but completing Inland Revenue reviews could increase administrative costs and timeframes. Administrative resources may	(0) A PAYE cap would be easy to administer, and is expected to have no or negligible additional effects on administrative feasibility.

	Status quo	A 'payroll' taxes cap	TEP test	PAYE cap
			also be required to focus more on audits rather than approving R&D activity.	
Minimise fiscal costs/risk	Fiscal costs are forecast to be $1,345 million (direct costs) plus $19.5 million (administration costs) from 1 April 2019 to 30 June 2022. In Budget 2018 the Government allocated $1,020 million for the R&D Tax Incentive, in addition to the $528 million already allocated for Growth Grants.	(-) We anticipate that allowing refundability under a 'payroll' taxes cap will increase the uptake of the Tax Incentive. This in turn will increase the R&D expenditure performed by firms, and the amount claimed under the Tax Incentive. An increase in claims lends itself to increased fiscal costs. However, the appropriation for the Tax Incentive in Budget 2018 already allows for the fiscal cost of full refundability. This is because the existing fiscal cost model assumed no constraint on refundability. As discussed previously, if New Zealand were to experience R&D growth equivalent to the refundable part of the Australian scheme, we have estimated that it might add approximately $40 million (over the period of the	(-) We anticipate that allowing refundability under a TEP test will increase the uptake of the Tax Incentive. This in turn will increase the R&D expenditure performed by firms, and the amount claimed under the Tax Incentive. An increase in claims lends itself to increased fiscal costs. The increased potential for fraudulent claims leads to a potentially higher fiscal risk. The $5 million cap would provide a limit on refundable tax credits, but would not constrain the amount of eligible tax credits that could be carried forward and would still be a fiscal cost. However, the appropriation for the Tax Incentive in Budget 2018 already allows for the fiscal cost of full refundability. This is because the existing fiscal cost model assumed no	(-) We anticipate that allowing refundability under a PAYE cap will increase the uptake of the Tax Incentive. This in turn will increase the R&D expenditure performed by firms, and the amount claimed under the Tax Incentive. An increase in claims lends itself to increased fiscal costs. However, the appropriation for the Tax Incentive in Budget 2018 already allows for the fiscal cost of full refundability. This is because the existing fiscal cost model assumed no constraint on refundability. As discussed previously, if New Zealand were to experience R&D growth

	Status quo	A 'payroll' taxes cap	TEP test	PAYE cap
		appropriation) to our estimates of the fiscal costs of the R&D Tax Incentive. If this $40 million were added to the forecast costs of full refundability, it would still be within the existing appropriation (which has an approximate buffer of $200 million). Therefore, no further appropriation is being requested.	constraint on refundability. As discussed previously, if New Zealand were to experience R&D growth equivalent to the refundable part of the Australian scheme, we have estimated that it might add approximately $40 million (over the period of the appropriation) to our estimates of the fiscal costs of the R&D Tax Incentive. If this $40 million were added to the forecast costs of full refundability, it would still be within the existing appropriation (which has an approximate buffer of $200 million). Therefore, no further appropriation is being requested.	equivalent to the refundable part of the Australian scheme, we have estimated that it might add approximately $40 million (over the period of the appropriation) to our estimates of the fiscal costs of the R&D Tax Incentive. If this $40 million were added to the forecast costs of full refundability, it would still be within the existing appropriation (which has an approximate buffer of $200 million). Therefore, no further appropriation is being requested.

Key:

++	much better than doing nothing/the status quo
+	better than doing nothing/the status quo
0	about the same as doing nothing/the status quo
-	worse than doing nothing/the status quo
- -	much worse than doing nothing/the status quo

Section 5: Conclusions

5.1 What option, or combination of options, is likely best to address the problem, meet the policy objectives and deliver the highest net benefits?

Which entities will be eligible for a refund

Based on the above analysis, the preferred combination of options is for general business entities and levy bodies to be eligible for refundability, and for charities, local authorities, and other organisations that receive (non-dividend) exempt income to be ineligible. The effect of these options is that many more business entities would be eligible for refundability, while not bringing in entities that already receive substantial benefits from operating outside of the tax system. This would be a positive change for listed companies, partnerships, trusts, levy bodies and Māori businesses, and would explicitly exclude charities, local authorities, and other tax-exempt organisations, providing clarity in the law.

Constraints on refundable amount

Based on the above analysis, the two leading options are a 'payroll' taxes cap and a PAYE cap. Both options would significantly mitigate the risk of fraudulent claims, as firms could not take out more from the tax system than they put in. They would be simple, have low compliance costs for firms, and be easy to administer. They would provide increased business certainty, with broad and simple eligibility for refundability. The preferred option is to constrain refundability by a 'payroll' taxes cap, because this would have a greater impact on BERD, with a comparatively lesser constraint imposed on the benefit received by loss-making start-ups in particular.

Benefits of proposed broader refundability

The broader refundability proposed will better support the Government's objectives of incentivising increased BERD. Providing refundable tax credits to businesses that have insufficient tax liability is a key element of the effectiveness of the R&D Tax Incentive in achieving significant growth in BERD.

Broadening the refundability available from that provided for year one of the R&D Tax Incentive will broaden the reach and effect of the R&D Tax Incentive. Businesses will receive the financial support of the R&D Tax Incentive earlier or, in some instances, will actually get a benefit where they previously would not have.

The key advantage to a refundable tax credit is it provides cash closer to the point when firms, particularly R&D intensive firms, are undertaking their R&D. Broader refundability will provide increased certainty to businesses, with broad and simple eligibility, and receipt of cash refunds each year rather than having to carry forward credits that may be lost due to continuity breaches.

The refundability available in year one is expected to be limited to approximately 350-650 firms, and 65-130 of those are expected to hit the cap on refundability. The proposed broader refundability has simpler eligibility criteria, and would be available to a larger number of firms, estimated at 750-1200 firms in 2019 (or 550-1100 firms, after allowing for some firms to remain on the Callaghan Innovation Growth Grant).

The wider coverage and increased cash flow to businesses performing R&D is expected to lead to increased R&D investment by those businesses.

Increased coverage of R&D-performing firms (and higher incentives for firms to engage in R&D) is expected to result in an increase in innovative activity,

employment, and labour productivity growth, particularly among firms that did not qualify for limited refundability. A higher level of R&D expenditure will result in greater spillover benefits to other participants in the economy.

The proposed constraint on refundability is not anticipated to restrict refunds for the vast majority of R&D performers. It means that all firms would have some immediate benefit and a few would have less than full refundability. Given the R&D Tax Incentive scheme is relatively broad and accessible, the proposed refundability restrictions do not fundamentally alter the incentives of the scheme. Overall, and compared with most other jurisdictions, the proposed policy represents a comprehensive approach to refundability.

5.2 Summary table of costs and benefits of the preferred approach

Affected parties	Comment: *nature of cost or benefit, risks*	Impact	Evidence certainty
Additional costs of proposed approach, compared to taking no action			
R&D performing firms	Compliance costs	No need to quantify because negligible.	
Administering agency	Administration costs	No need to quantify because negligible.	
Wider government	Higher fiscal costs because of wider coverage of firms and more incentive to claim. The cost of the Tax Incentive will continue to be met from Vote: BSI and managed by MBIE in a similar way.	Potentially higher fiscal costs of R&D Tax Incentive, up to approximately $40 million (over the period of the appropriation). No change required to appropriation which includes full refundability and covers additional $40 million 'estimate' (within an approximate buffer of $200 million).	Low
Other parties	No anticipated costs.	$0	
Total monetised cost		Higher fiscal costs of R&D Tax Incentive, of up to approximately $40 million (over the period of the appropriation). No change required to appropriation which includes full refundability and covers additional $40 million 'estimate' (within an approximate buffer of $200 million).	Low
Non-monetised costs		n/a	

Expected benefits of proposed approach, compared to taking no action			
R&D performing firms	Eligible firms will receive a refundable tax credit equivalent to 15% of their eligible R&D expenditure, up to a cap of the amount of 'payroll' taxes paid per year, plus tax credits resulting from payments to approved research providers[10]. For existing Growth Grants this is roughly equivalent to a 20% pre-tax subsidy (as per the Growth Grant),[11] all else being equal.[12] For non-recipients of a Growth Grant this will be an increased subsidy. These benefits are equivalent to the costs to wider government (as above). In addition, firms receiving new or additional funding are expected to employ more staff and increase labour productivity growth, but effects have not been monetised.	Higher R&D up to potentially an additional $250 million, with corresponding spillovers.	Medium Medium
Administering agency	None	0	n/a
Wider government	Higher investment in R&D and resulting business innovation expected to result in more productivity growth over time, leading to higher incomes and hence tax paid, but effects have not been monetised.	Medium	Low
Other parties	Higher investment in R&D is expected to generate positive spillovers to rest of the economy (other firms,	Medium	Low

[10] The cap will not apply to organisations established by statue.

[11] Given a 28% corporate tax rate, a 20% subsidy pre-tax corresponds to 14.4% subsidy after tax, which is less generous than a 15% tax credit for firms that have a sufficient tax liability (or will have in the future) against which to apply the tax credit. Firms with insufficient tax liability will be able to refund their 15% tax credit, up to the proposed cap amount. The maximum amount paid under a Growth Grant to firms in tax loss is $5 million per year.

[12] Assuming eligible R&D expenditure is the same.

	researchers, etc.), but effects have not been monetised.		
Total monetised benefit		Higher R&D up to potentially an additional $250 million, with corresponding spillovers.	Low
Non-monetised benefits		High	
General business entities	Listed companies, partnerships and trusts will be eligible for refundability, and there will be no wage intensity requirement. This will allow most Māori organisations to be eligible. This provides clarity and will support investment in business R&D	Medium	Medium
Levy bodies	Levy bodies will be eligible for refundability. This will support investment in business R&D and provides clarity that ensures levy body members will not be disincentivised to fund their R&D through their levy body.	High	High
Charities	Clarity is provided that charities and their wholly-owned entities will be ineligible for the Tax Incentive, while partially controlled business entities could be eligible.	0	
Local authorities	Clarity is provided that local authorities, as well as entities controlled by or associated with local authorities, will be ineligible for the Tax Incentive.	0	
Other tax-exempt organisations	Clarity is provided that other tax-exempt organisations will be ineligible for the Tax Incentive.	0	

5.3 What other impacts is this approach likely to have?

There is a potential risk that by providing broader refundability, businesses are motivated to recharacterise non-R&D expenditure as R&D expenditure or make fraudulent claims.

The Tax Incentive has been designed to reduce the likelihood of, and opportunities to recharacterise non-R&D expenditure. This includes requiring a close nexus between the R&D activity and the expenses claimed.

The proposal to broaden eligibility for refundability includes a 'payroll' taxes cap on refunds to mitigate the fraud, fiscal, and integrity risks associated with paying out cash.

Businesses would be entitled to a full refund of their R&D tax credits, to the extent their R&D tax credits are equal to or less than the amount of 'payroll' taxes paid in the relevant income year.[13]

Payments to Approved Research Providers are not included in the cap as it will be easy to verify that these payments have actually been incurred by a firm. Levy bodies are not subject to the cap due to reduced risk that refunded R&D tax credits will be unrecoverable, and some may have low 'payroll' taxes where R&D is largely contracted out.

Additional measures to mitigate risk include a sample of claims being audited each year, and an in-year approval process (included in the Act), which requires claimants to obtain approval of their R&D activities before they file a claim for their R&D tax credits. The $50,000 minimum threshold of eligible expenditure (included in the Act) is also an important measure in preventing a flood of smaller, lower-quality claims.

5.4 Is the preferred option compatible with the Government's "expectations for the design of regulatory system"?

There is no incompatibility between this regulatory proposal and the Government's 'Expectations for the design of regulatory systems'.

Section 6: Implementation and operation

6.1 How will the new arrangements work in practice?

Legislation will need to be enacted to give effect to broader refundability. It is proposed that broader refundability come into effect from businesses' 2020/21 income year. Therefore, it is proposed that the legislative changes needed to give effect to broader refundability be included in a tax bill scheduled to be introduced in June 2019, which would make changes to the Income Tax Act 2007 and the Tax Administration Act 1994.

Inland Revenue is leading implementation of the R&D Tax Incentive through the tax system, and will also be responsible for implementing broader refundability. Inland Revenue will identify and mitigate operational risk so that broader refundability can be delivered successfully. Inland Revenue has the necessary capabilities and capacity to implement broader refundability through its systems.

[13] Payroll taxes would include PAYE, FBT, employer superannuation contribution tax (ESCT) and withholding tax on schedular payments (WT).

It is expected that broader refundability will pose minimal compliance and administrative costs. No material change is expected for the R&D supplementary return. Instead of carrying forward non-refundable R&D tax credits, most firms will be able to receive R&D tax credit refunds. Any increase in administrative costs would be negligible, because Inland Revenue intends to carry out checks and reviews on claims from year one. The existing core team of Inland Revenue and Callaghan Innovation officials will continue to work on claims after broader refundability is introduced.

Inland Revenue, working with the other agencies, will develop guidance material on the broader refundability proposals and the impact of these on business. Since broader refundability expands on the new R&D Tax Incentive, there are no particular transition issues. Credits not refunded in respect of the 2019/20 tax year, and carried forward to the 2020/21 tax year, may be refunded in that latter year or subsequent years.

The proposed eligibility criteria for broader refundability are simpler than the existing eligibility criteria that apply to limited refundability in year one. This may result in a simpler process that is easier for businesses to comply with, so may in fact lead to reduced compliance costs.

Officials from all agencies (MBIE, Callaghan Innovation, and IR) have engaged, and will continue to engage, with interested stakeholders. This includes accounting firms, businesses, and Chartered Accountants Australia and New Zealand (CAANZ).

For some taxpayers, the legislation is expected to receive Royal Assent after the beginning of their 2020/21 income years. This is unlikely to create significant issues, however, because claims will be submitted with taxpayers' income tax returns which are due after the end of their income year, by which point it is anticipated the legislation will have been enacted. No credits will be refunded under the broader refundability rules until legislation has been enacted.

6.2 What are the implementation risks

In submissions on the R&D Tax Incentive, a clear theme was the need for low compliance costs, to the extent this is possible. Feedback highlighted the need for clear guidance and education material. Businesses engaged with on the broader refundability proposals reaffirmed the need for simple rules and low compliance costs.

As mentioned above, the broader refundability proposals contain eligibility criteria that are simpler than the year one limited refundability criteria. The proposed broader refundability rules do not require corporate eligibility and wage intensity tests to be satisfied, and rely on the existing (easier) rules of the R&D Tax Incentive. Allowing for broader refundability also reduces the need for continuous tracking of shareholder continuity, because once refunded credits are no longer at risk of being extinguished through breaches of shareholder continuity rules. This is particularly beneficial for smaller, R&D intensive start-ups which may regularly seek new investors to boost funding for their R&D projects.

Implementation risks arise where businesses re-characterise non-R&D expenditure as R&D expenditure in order to claim a larger tax credit. The incentive for re-characterisation is greater with broader refundability, because firms can receive cash refunds (rather than having to wait until they come into profit to utilise their R&D tax credits). The policy and legislation has been developed to manage this risk, although

it cannot be eliminated. The proposed 'payroll' taxes cap on refunds will be backed up by existing administrative processes, such as in-year approval and IR audits.

There needs to be strong uptake of the R&D Tax Incentive by businesses for the incentive to be successful. As indicated by the submissions received on the Bill, broader refundability is an important part of ensuring businesses transition to the scheme. Inland Revenue, Callaghan Innovation and MBIE officials have engaged with stakeholders on the broader refundability proposals. Guidance will also be developed by Inland Revenue, which will sit alongside the tax legislation, to provide claimants with more information about the broader refundability proposals.

Section 7: Monitoring, evaluation and review

7.1 How will the impact of the new arrangements be monitored?

The impact of the broader refundability proposals will be monitored as part of the system-level monitoring of the R&D Tax Incentive. The R&D Tax Incentive will be monitored as part of the Research, Science and Innovation portfolio (for example, through publication of the annual System Performance Report).

As part of the R&D Tax Incentive, the Government is required to commission an evaluation of the incentive every five years from the commencement of the scheme. This evaluation would include an evaluation of broader refundability.

In addition to the 5-year evaluation of the incentive, the business R&D surveys run by Statistics New Zealand can also be used to evaluate the R&D Tax Incentive scheme (which would include broader refundability). This will provide additional information to measure the impact of the R&D Tax Incentive and the broader refundability proposals.

7.2 When and how will the new arrangements be reviewed?

In addition to the legislated 5-year evaluation of the R&D Tax Incentive, MBIE and IR will monitor the policy in the shorter term. This is so that any issues associated with broader refundability that could compromise the integrity of the Incentive can be quickly identified and remedied.

The R&D Advisory Group (RDAG) is a consultative committee comprising representatives from accounting firms and other businesses that functions as a forum for identifying and resolving problems with the R&D Tax incentive. RDAG had its first meeting in January 2019. Officials also have regular meetings and discussions with a broader range of stakeholders, at which policy and implementation issues are discussed. It is expected that RDAG and these regular stakeholder discussions will enable officials to conduct on-going monitoring and review of the impact of broader refundability.

Bibliography

Appelt, S., M. Bajgar, C. Criscuolo, & F. Galindo-Rueda (2016). R&D Tax Incentives: Evidence on design, incidence and impacts. *OECD Science, Technology and Industry Policy Papers, No 32*.

Di Maio, M., & N. Blakeley (2004). "Business Research and Development and Industry Structure". New Zealand Treasury.

Mazoyer, P. (1999). "Analysis of R&D structure and intensities". Wellington, New Zealand: Ministry of Research, Science & Technology.

OECD. (2017). *OECD Economic Surveys: New Zealand 2017.* Paris: OECD Publishing.

Statistics New Zealand (2017). *Research and Development Survey: 2016. https://www.stats.govt.nz/information-releases/research-and-development-survey-2016*

Statistics New Zealand (2018). *Business Operations Survey: 2017. https://www.stats.govt.nz/information-releases/business-operations-survey-2017*

Wakeman, S. & P. Conway (2017). *Innovation and the performance of New Zealand firms.* Wellington: New Zealand Productivity Commission Working Paper.

Appendix 1

The following table sets out key features of how refundability is applied in key OECD countries.

Country	Refundability policy	Other relevant factors
Australia	Limits refundability to: • firms with turnover less than A$20m & • subject to a A$4m annual cap.	The cap is proposed but legislation not yet passed. It is designed to reduce the costs of the scheme. The cap equates to A$10m eligible expenditure
UK – SMEs	Firms in loss can cash out their tax credit at a discount to their value.[14] The UK government is currently consulting on introducing a cap relating to PAYE payments.	The SME scheme is more generous than the large firm scheme. SMEs must have: • fewer than 500 employees and • turnover less than EUR 100m.
UK – large firms	For non-SMEs, the tax credit is paid before tax, so loss making firms benefit equally with profitable firms, subject to not exceeding the amount of PAYE and National Insurance Contribution paid.	
Norway	Full refundability for tax paying entities.	The tax credit operates with a very low cap. The maximum credit is (approx.) NZ$2m, and in most cases is NZ$1m. The tax credit is not available to non-taxpayers.
Ireland	Full refundability, but paid in instalments over 3 years, and subject to limits relating to amounts of corporate income tax paid or amounts of payroll tax paid.	
Netherlands	Full refundability but limited to a firm's payroll tax liability.	
Canada	The credit is fully refundable for Canadian Controlled Private Corporations up to an expenditure limit of CAD 3 million. Higher expenditure is only 40% refundable.	The tax credit rate is 35% up to eligible expenditure of CAD 3 million, and 15% for higher amounts.

[14] Firms in loss can cash out 14.5% of surrenderable losses (these are the lesser of their trading loss and 230% of the R&D spend).

The table above demonstrates different mechanisms can be used for constraining refundability. Here are some brief comments on each of them:

Eligibility for refundability based on firm characteristic (generally a measure of size such as turnover)

- can target refundability to firms that, potentially, benefit most from it – ie, smaller or early stage firms
- creates boundaries which might disincentivise desired behaviours – eg, a firm may choose not to grow to keep turnover below the threshold
- relatively simple to understand but measurement would introduce complexity

Refundability applies up to a cap; credits above cap carried forward

- refundability addresses cash flow needs
- less of a boundary issue so less likely to impact on firm behaviours (though incentive to increase R&D spend may diminish above cap)
- relatively easy to understand and apply

Limit refundability based on other taxes paid

- if based on PAYE paid, more like a backstop rather than a fiscal cap as for most businesses the amount of PAYE across the whole firm will exceed 15% of the cost of R&D
- useful as a possible fraud deterrent as it should ensure a firm has a tangible economic presence, and may also prevent exploitation of a loophole if that involved claiming credits for high non-wage costs
- operates as some form of integrity and fiscal constraint measure, in that a firm cannot "take out" more than it is "putting in" to the tax system.
- some firms may not pay PAYE – eg, staff are not employees and are either shareholders who are paid a shareholder salary, contractors or provide sweat equity. This suggests either using a wider definition of taxes paid[15] or making a provision for firms to apply for an exemption
- administratively easy to understand and apply (subject to exceptions for firms without employees)

Refund credits at a discount

- supports loss making firms while providing an incentive to become profitable
- provides firms with a choice whether to refund the credit or carry it forward
- perhaps less easy to understand but relatively easy to apply

Spread refundability over several years

- more complex to track a firm's position
- for a firm in a long-term loss making position, will produce similar results to full year refundability after a few years
- creates a tail of Government liability

Target refundability based on R&D intensity

This mechanism is not used by any other country for targeting refundability (though in Australia R&D intensity influences the credit rate for large enterprises) but is worth considering as it is the basis of the year one scheme.

- can target refundability to those most deserving of it

[15] One possibility would be to include adding withholding taxes paid.

- creates a boundary that might give rise to perverse behaviours
- different measures of R&D intensity may favour different types of R&D performing firms
- though relatively easy to understand, adds complexity to compliance and administration.

Appendix 2

The examples below provide a practical illustration of how without refundability, firms do not receive a cash benefit from a tax credit if they are in loss or have insufficient income tax liability.

This table provides a simple example of how a profitable firm uses a tax credit to reduce the amount of tax it has to pay in a year:

Profitable firm (refundability makes no difference)	
Income	400
Expenses (includes 100 of eligible R&D)	300
Net profit/(loss)	100
Income tax liability (28% x Net profit)	28
R&D tax credit (15% x eligible R&D)	15
Net tax to pay	13

This table shows how a loss-making firm does not receive an immediate benefit from a tax credit without refundability:

Loss-making firm (without refundability)	
Income	300
Expenses (includes 100 of eligible R&D)	400
Net profit/(loss)	(100)
Income tax liability (28% x Net profit)	0
R&D tax credit (15% x eligible R&D)	15
Unused R&D tax credits to carry forward to future years	15

This table provides a simple example of a profitable firm that has insufficient income tax liability to receive the full benefit of a tax credit without refundability:

Profitable firm with insufficient income tax liability (without refundability)	
Income	310
Expenses (includes 100 of eligible R&D)	300
Net profit/(loss)	10

Income tax liability (28% x Net profit)	2.8
R&D tax credit (15% x eligible R&D)	15
Unused R&D tax credits to carry forward to future years	12.2

This table shows how a loss-making firm receives an immediate benefit from a refundable tax credit:

Loss-making firm (with refundability)	
Income	300
Expenses (includes 100 of eligible R&D)	400
Net profit/(loss)	(100)
Income tax liability (28% x Net profit)	0
R&D tax credit (15% x eligible R&D)	15
R&D tax credits refunded in cash	15