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A special report from
Policy and Strategy, Inland Revenue

"Cash out" of research and development tax losses

This special report provides early information on changes to the tax rules that will allow start-up companies engaging in intensive research and development activities to "cash out" their tax losses for research and development expenditure. The changes were introduced in the Taxation (Annual Rates for 2015–16, Research and Development, and Remedial Matters) Bill enacted on 24 February 2016. Information in this special report precedes full coverage of the new legislation that will be published in the April edition of the *Tax Information Bulletin*.

Sections DF 1, DV 26, LA 7, LB 4B, MA 1, MF 6, MX 1 to MX 7, OB 47B, Table O2, sections RM 10, YA 1 and schedule 22 of the Income Tax Act 2007; sections 70C, 81 and 97C of the Tax Administration Act 1994; Goods and Services Tax (Grants and Subsidies) Order 1992

Changes have been made to the Income Tax Act 2007, Tax Administration Act 1994 and Goods and Services Tax (Grants and Subsidies) Order 1992 to allow tax loss-making research and development start-up companies to "cash out" their tax losses arising from research and development expenditure.

Key features

Research and development start-up companies will be able to receive a payment for up to 28 percent (the current company tax rate) of their tax losses from research and development expenditure in any given year.

To be eligible, the company must be a loss-making company resident in New Zealand, with a sufficient proportion of labour expenditure on research and development.

The amount of losses that can be cashed out will be capped at $500,000 for the 2015–16 year, increasing by $300,000 over the next five years, to $2 million. The amount that can be cashed out for any year is the smallest of that cap, the company's net loss for the year, the company's total research and development expenditure for the year, and 1.5 times the company's labour costs for research and development for the year. Because the cash-out is administered through the tax system, it is delivered in the form of a tax credit.

Research and development expenditure eligible for the measure is more restricted than the research and development expenditure that is deductible under sections DB 34 and DB 35 of

the Act. Expenditure on certain activities and some types of expenditure are excluded from the measure.

A cashed-out loss can be thought of as an interest-free loan from the Government to be repaid from the taxpayer's future income; it is intended to provide a cashflow timing benefit only. In economic terms, repayment of cashed out losses will occur when a taxpayer pays tax on net income that would otherwise have been sheltered by the cashed out losses. An earlier repayment will also be triggered in certain circumstances. Triggers for the early repayment of amounts cashed out include the sale of research and development assets, liquidation or migration of the company, and the sale of the company. The early repayment will be effected via a new R&D repayment tax. Where a cashed out loss is required to be repaid early, a new deduction will reinstate the loss, which will be available to offset future income.

Background

The Government's Business Growth Agenda emphasises the importance of innovation to help grow New Zealand's economy. Innovation creates new sources of economic growth by delivering new products and generating improvements in the quality and cost of existing products. Encouraging business innovation is one of the seven key initiatives of the Government's Building Innovation workstream, which recognises that research and development is a key element in the innovation process.

The new rules focus on start-up companies engaging in intensive research and development, and are intended to reduce their exposure to market failures and tax distortions arising from the current tax treatment of losses.

High up-front costs associated with undertaking research and development mean that relative to other investment projects, the profit cycle for research and development projects tends to be much more heavily skewed towards early losses. This can pose a particularly significant barrier to undertaking research and development for innovative start-up companies. Larger firms generally have the ability to use those losses earlier, setting them off against existing streams of income.

The general tax rules delay the ability of loss-making businesses to use their deductions, as they are required to carry the losses forward. This provides an important integrity measure in the tax system to mitigate the creation of artificial losses. However, these current tax settings create a cashflow problem for certain companies in an on-going tax loss position.

This cashflow bias is particularly significant for companies undertaking research and development, and this can increase the cost of investing in research and development rather than in other assets.

Problems can be compounded for start-up companies undertaking research and development who are already likely to suffer from broader capital constraints.

The general tax rules can also penalise businesses that engage in research and development that ultimately turns out to be unsuccessful. This is because losses, in this case from unsuccessful research and development, can only be used going forward if there is a subsequent profitable business. The general rules therefore make the use of previous tax

losses contingent upon successful innovation or future income earning by the same group of investors. The risk of incurring this potential additional sunk cost is likely to discourage investment in marginal research and development projects further.

The timing that those companies can access their tax losses is being brought forward, provided they meet certain criteria. This will help to reduce the bias against investment in these firms from current tax settings.

Consultation on the high level policy changes took place in July 2013, with the release of the officials' issues paper, *R&D tax losses.*

The new legislation received Royal assent on 24 February 2016.

Application date

The new rules apply to income years beginning on or after 1 April 2015.

Detailed analysis

Research and development expenditure

Section YA 1 and new schedule 22 of the Income Tax Act 2007

The new measure applies in respect of "R&D expenditure", as defined in section YA 1. "R&D expenditure" is basically expenditure incurred on research and development. The terms "research" and "development" have the same meanings as they do for accounting purposes. These are also the same definitions that govern deductibility of research and development expenditure under sections DB 34 and DB 35. Using the existing definition is simpler for taxpayers already familiar with it for accounting purposes. However, to ensure that the measure stays targeted, the definition of "R&D expenditure" is subject to certain limits.

Expenditure on an activity listed in a new schedule 22 of the Income Tax Act 2007 is excluded from the definition of "R&D expenditure" (and thus the measure). Activities are generally listed in the schedule because they take place in a post-development phase, are related to routine work or there is an indeterminate relationship between the activity and economic growth. Also, many of the excluded activities are expected to take place when the company is less likely to be capital and cashflow-constrained.

The following activities are listed in schedule 22:

- an activity performed outside of New Zealand;
- acquiring or disposing of land and related activities, except if the land is used exclusively for housing research or development facilities;
- acquiring, disposing of or transferring intangible property, core technology, intellectual property or know-how, and related activities (for example, drafting sale and purchase agreements for patents);

- prospecting for, exploring for or drilling for, minerals, petroleum, natural gas or geothermal energy;
- research in social sciences, arts or humanities;
- market research, market testing, market development or sales promotion, including consumer surveys;
- quality control or routine testing of materials, products, devices, processes or services;
- making cosmetic or stylistic changes to materials, products, devices, processes or services;
- routine collection of information;
- commercial, legal and administrative aspects of patenting, licensing or other activities;
- activities involved in complying with statutory requirements or standards;
- management studies or efficiency surveys;
- reproduction of a commercial product or process by a physical examination of an existing system or from plans, blueprints, detailed specifications or publicly available information; and
- pre-production activities, such as a demonstration of commercial viability, tooling-up, and trial runs.

Similarly, some items of expenditure are specifically excluded from the definition of R&D expenditure on the basis that their inclusion could create an economic distortion, inequity between taxpayers in a similar position, or risk compromising the integrity of the initiative. Items excluded on this basis are:

- expenditure on goods and services used to provide a service of research or development to someone who is in the business of providing research and development services, or used to further another person's research or development activities;
- expenditure for which no deduction is available for the income year;
- expenditure for or under a financial arrangement; and
- expenditure for the acquisition or transfer of intangible property, core technology, intellectual property or know-how.

An important component of the definition of "R&D expenditure" is that any intellectual property and know-how that results from the research or development is vested in the company, solely or jointly. These requirements are intended to ensure that the value of the amounts cashed out goes to the company that is incurring the risk of investing in the research and development.

More detailed guidelines to help applicants interpret the definition will be made available.

Eligibility

Sections MX 1, MX 2, MX 3 and YA 1 of the Income Tax Act 2007

The eligibility requirements are set out in new sections MX 1, MX 2, MX 3 and YA 1 of the Income Tax Act 2007 and target the measure to start-up firms engaging in intensive research and development. The measure is not expected to apply to highly structured or complex firms which have an R&D aspect. The eligibility requirements must be met for each income year that the taxpayer applies to cash out a loss.

Optional

The decision to cash out a tax loss is optional for each income year. That is, a company may choose to cash out a loss in one year, and may choose not to for a subsequent year. The rules governing the repayment of cashed-out amounts are not optional.

Corporate eligibility

The applicant must be a company that is resident in New Zealand for the whole year and not treated, under a double tax agreement, as a resident of a foreign country or territory. A company incorporated part-way through the year will be eligible as long as it meets all the requirements for the part of the year that it is in existence.

Example: Residence of shareholders

Moby is a touring surfer who has an idea to use a new type of lightweight material to construct surfboards. Moby's Hawaiian-resident friend Peleg agrees to fund investigating the idea. Modern Boards Limited (MBL) is incorporated in New Zealand (Peleg owns 85 percent of the shares and Moby the remaining 15 percent) and starts work on the idea. MBL has tax losses from that work. The residence of the shareholders does not affect the eligibility of the company to cash out losses, and therefore MBL may be eligible to cash out research and development tax losses.

The initiative is not intended to apply to companies owned by the Crown. A company that is established by or subject to the Education Act 1989, the New Zealand Public Health and Disability Act 2000 or the Crown Entities Act 2004, is not eligible.

Companies that are partially owned by the Crown may be eligible if less than 50 percent of the shares are together held by public authorities, local authorities, Crown research institutes or State enterprises.

Example: Ineligible from government-sector ownership

A Crown research institute and a State enterprise each have a 25 percent share of a joint venture company set up to do research and development on tidal impacts on new cable materials. The other 50 percent is owned by a private investor. The joint venture company is not able to cash out its losses because it is 50 percent owned by the Crown.

Example: Ineligible as a Crown entity

As a result of the rebuilding work carried out in Christchurch, researchers in University A and University B have invented a new process for quickly testing the setting rate of newly poured concrete. Magnitron Ltd is set up to develop the invention and the two universities together, through two different subsidiaries, own 51 percent of Magnitron Ltd. The remaining 49 percent share is owned by the two university-employed researchers who invented the idea and other private investors. Magnitron Ltd is not eligible to cash out its tax losses because it is subject to the Crown Entities Act 2004.

The company must not be a listed company or otherwise listed on a recognised exchange.

Losses from R&D that is owned by the company

The company must have a net loss for the relevant tax year. Also, the company must have incurred "R&D expenditure" in the relevant income year.

A tax loss arising from a deduction for research and development expenditure that is allocated to a future income year under section DB 34(7) of the Income Tax Act cannot be cashed out either in the year the expenditure was incurred or in the year the deduction is allocated to. This is because the definition of "R&D expenditure" does not include research and development expenditure for which no deduction is available for the income year.

Example: Expenditure allocated to later income years not eligible for the tax credit

Mattlab Ltd is a biotechnology firm designing a new medicine to repair liver damage. In the 2016–17 income year the company makes a loss of $1.1m carrying out a pre-clinical trial on mice. Although the whole of the loss relates to research and development expenditure, Mattlab Ltd can only cash out losses of $800,000 (the maximum allowed under the cap for the 2016–17 year). Developing the medicine further requires new venture capital. New equity investors are found in the 2017–18 year and the remaining losses from the 2016–17 income year are allocated to the 2018–19 year. All of the losses generated by Mattlab Ltd in the 2017–18 year are cashed out. In the 2018–19 year Mattlab Ltd incurs $0.9m of research and development expenditure, which generates a tax loss of the same amount. The reallocation of deductions from the 2016–17 year mean that Mattlab Ltd has losses of $1.2m, however it can only cash out losses of $0.9m, and must carry forward the remaining losses of $0.3m.

Group companies

If a company is part of a group for tax purposes, then that group must also meet some of the eligibility requirements in aggregate. The group must have a net loss for the corresponding tax year and meet the wage intensity criteria. These features are important for the integrity of the initiative.

The "R&D group" is defined and can include a company, look-through company or limited partnership.

Wage intensity criteria

To target the initiative to innovative start-ups, proportional labour expenditure on research and development is used as a proxy to gauge the intensity of research and development. Evidence indicates that loss-making research and development-intensive businesses, particularly smaller and younger businesses, tend to spend a greater proportion of their wage and salary costs on research and development than other businesses.

The wage intensity criteria are set out in section MX 3 of the Income Tax Act and to be eligible, the company must have a wage intensity calculation of 0.2 or more. Similarly, if the company is part of a group, the amount calculated for the "R&D group" in aggregate should be 0.2 or more.

The intensity calculation is:

total research and development labour expenditure ÷ total labour expenditure

There are two options for calculating wage intensity under the new rules. Option 1 is the simpler of the two. Option 2 is more accurate for employers who remunerate their staff with fringe benefits and superannuation contributions in addition to other types of compensation for labour.

Under Option 1, total research and development labour expenditure is defined as the total of amounts incurred in the income year on:

- the taxpayer's "contractor R&D consideration" multiplied by 0.66. The "contractor R&D consideration" is the amount paid to an external provider (excluding GST) for research and development work. This is to reflect the fact that taxpayers may outsource a part of their research and development work to an external provider. For taxpayers who are part of a research and development group, the contractor must not be part of that group;
- salary or wages paid to employees for carrying out research and development; and
- amounts paid to shareholder-employees for carrying out research and development that are not subject to PAYE.

Total research and development labour expenditure does not include expenditure on labour or contractors engaged in research and development activities that are listed in schedule 22. Similarly, the expenditure cannot be for goods and services used by the taxpayer to provide a service of research and development to another person, or to further another person's research or development activities. In addition, the intellectual property and know-how resulting from the research and development must vest in the taxpayer, solely or jointly.

Total labour expenditure is the total of amounts incurred in the income year on:

- the "contractor R&D consideration" multiplied by 0.66 (as in the numerator);
- salary or wages paid to employees; and
- amounts paid to shareholder-employees that are not subject to PAYE.

Under Option 2, the calculation is the same as for Option 1, except:

- the following amounts must be added to total labour expenditure:
  - the employer's superannuation contributions for the employee that are not salary or wages;
  - tax on the employer's superannuation cash contributions for the employee;
  - fringe benefits attributed to the employee; and
  - the employer's FBT liability in relation to the employee and the fringe benefits attributed to the employee.

- A proportion of the above amounts must also be added to total research and development labour expenditure. The proportion is the same, for each employee, as the proportion of the employee's total salary or wages that is paid for carrying out research and development, and included in the "total research and development labour expenditure" component of the formula.

Example: Wage intensity

Mattlab Ltd decides from the beginning of the 2017–18 income year to change its remuneration package for its full-time researchers to encourage them to stay in the company's employment. Its two research scientists, doing research and development full-time, are each paid $100,000/year and will receive superannuation contributions of 5 percent of their income for each year of service with the company (up to a maximum of 15 percent). Both have been with the company for two years. Thirteen other staff are paid $1,040,000 in total, and the CEO who spends one day a week doing research and development, is paid $120,000. Mattlab Ltd has outsourced some research and development work for that year for a price of $75,000 (excluding GST).

The wage intensity calculations for the 2017–18 year are:

Option 1

Total research and development labour expenditure is $273,500 [($75,000 * 0.66) + $200,000 + ($120,000 * 0.2)]

Total labour expenditure is $1,409,500 [($75,000 * 0.66) + ($200,000 + 1,040,000) + $120,000]

The wage intensity calculation is $273,500 ÷ $1,409,500 = 0.194

Option 2

Total research and development labour expenditure is $300,100 [($75,000 * 0.66) + ($200,000) + $20,000 + $6,600 + ($120,000 * 0.2)]

Total labour expenditure is $1,436,100 [($75,000 * 0.66) + $200,000 + $20,000 + $6,600 + $1,040,000 + $120,000)]

The wage intensity calculation is $300,100 ÷ $1,436,100 = 0.209

The superannuation package adds $20,000 of superannuation contributions and $6,600 of tax on superannuation contributions to both the numerator and denominator of the calculation.

Mattlab Ltd meets the wage intensity criteria using Option 2, but not if it uses Option 1.

Amount of the cash-out

Sections MX 4 and YA 1 of the Income Tax Act 2007

Because the cash-out is administered through the tax system, it is delivered in the form of a refundable tax credit. This tax credit is referred to as the "R&D loss tax credit" Similarly to other tax credits, only the net loss for the relevant year can be cashed out. That means that it will not be possible to cash out a tax loss in a year subsequent to when the loss arose (that is, carried forward tax losses cannot be cashed out). Any net losses for a year which cannot be cashed out will be carried forward under the usual rules.

New section MX 4 of the Income Tax Act 2007 sets out the amount of the R&D loss tax credit for a year. It is the smallest of:

- $500,000 (for the 2015–16 tax year, and increasing by $300,000 for each of the following five years) multiplied by the corporate tax rate;
- the company's net loss for the year multiplied by the corporate tax rate;
- the company's total R&D expenditure for the tax year multiplied by the corporate tax rate; and
- the company's total research and development labour expenditure for the year (as calculated under section MX 3), multiplied by 1.5 and also multiplied by the corporate tax rate.

The $500,000 cap on eligible losses will be increased to $2 million over five years. The gradual increase of the cap is an integrity measure and should also help industry sectors to plan for the future supply of researchers.

Example: Amount of the tax credit

Amblack Ltd is a company carrying out research and development on a new variety of avocado that also tastes of lemon. They have two senior plant researchers and a technician working full-time on the project. In the 2016–17 tax year Amblack Ltd had a net loss of $600,000, spent $425,000 on research and development, and the researchers and technician were paid $245,000 in salary and wages for research and development.

The amounts under the four tests are: $800,000 (cap) > $600,000 > $425,000 > $245,000 * 1.5 ($367,500), each multiplied by the company tax rate of 0.28% for that year.

Amblack Ltd is eligible to receive a R&D loss tax credit of $102,900 for that year ($367,500 * 0.28).

Treatment of tax losses

Sections MX 5, MX 6 and YA 1 of the Income Tax Act 2007

New section MX 5 of the Income Tax Act 2007 will extinguish tax losses that are cashed out.

New section MX 6 creates a new deduction if the company tax rate increases after a tax loss has been cashed out. This is to ensure that a company is not disadvantaged by electing to cash out a tax loss instead of carrying it forward if the corporate tax rate is subsequently

increased (as an increase in the corporate tax rate will increase the amount of tax saved by any tax losses). The amount of the new deduction is essentially the difference between:

- the amount of the cashed out tax losses that would still have been available when the tax rate increased; and
- the amount of tax losses that would need to be cashed out at the new rate to produce the same tax credit as the above tax losses produced when cashed out at the old rate.

The amount of the deduction is calculated for each year in which an R&D loss tax credit was received using the formula:

*tax credits * (new rate – old rate) ÷ (new rate * old rate)*

The items in the formula are defined as follows:

"**tax credits"** is the total amount of the company's R&D loss tax credits for years before the rate increases minus the total amount of:

- the company's terminal tax, plus tax credits giving rise to imputation credits, minus refundable tax credits giving rise to imputation debits, for the period beginning with the first year a R&D loss tax credit was claimed and ending with the tax year before the current year; and
- payments of R&D repayment tax relating to the R&D loss tax credits before the current year (R&D repayment tax is discussed in the next section).

"**new rate**" is the basic tax rate for a company after the rate increase:

"**old rate**" is the greatest of:

- the basic tax rate for a company before the rate increase;
- the basic tax rate for a company for the latest year, before the current year, for which the person received a previous deduction under section MX 6; and
- the basic tax rate for a company for the year in which the latest R&D loss tax credit arose (before the current year).

Example: Increase in the company tax rate

Hemantware Ltd researches new materials for sport shoes. The company cashes out $800,000 of tax losses in the 2016–17 income year when the company tax rate is 0.28, to receive tax credits of $224,000. The company tax rate changes to 0.30 for the 2017–18 tax year. Hemantware Ltd has a resulting deduction of $53,333 [$224,000 * (0.3 – 0.28) ÷ (0.30 * 0.28)] for that year.

There is no complementary provision to create income (or remove deductions) if the company tax rate is reduced.

Repayment of cashed out losses

Sections DV 26, MX 7 and YA 1 of the Income Tax Act 2007; section 70C of the Tax Administration Act 1994

A cashed out loss can be thought of as an interest-free loan from the Government to be repaid from the taxpayer's future taxable income; it is intended to provide a temporary cashflow timing benefit when the company is in a tax loss position.

Repayment of cashed out losses will occur when a taxpayer pays tax on taxable income that would have been sheltered by the cashed out losses if they had been carried forward. However if the company or the shareholders make an untaxed return on their investment before they have repaid the value of the cashed-out loss, this would lead to an outcome that is concessionary for the taxpayer unless it triggered the repayment of some cashed-out losses. This is because, in addition to the untaxed receipt, the taxpayer would also retain the benefit of the remaining cashed-out losses that have not yet been repaid. This also creates a fiscal risk.

If the company sells intellectual property, migrates or if the company is sold, it is highly likely the company will no longer be constrained to the same degree by the market conditions and cashflow constraints affecting small research and development intensive start-up companies. In this situation, the original policy rationale will no longer apply, as the company will have funds available to pay back the value of the cashed-out loss. Section MX 7 sets out the rules required to recover the value of any remaining cashed-out loss to ensure the correct policy outcome.

The remaining amount of any cashed-out tax losses must be repaid when one or more of the following four repayment events occur during the year:

- The company makes a return on its investment by disposing of or transferring research and development assets (that is, intellectual property, intangible property, core technology and know-how). The exceptions are if the disposal is part of an amalgamation or if the disposal is for at least market value consideration that is assessable income to the company.
- The company ceases to be a company resident in New Zealand for tax purposes or becomes resident in a foreign country under a double tax agreement. This is most likely to apply if the company migrates.
- The company has a liquidator appointed.
- Or more than 90 percent of the company is sold or transferred after the tax loss was cashed out.

A cashed-out tax loss is repaid by payment of the new R&D repayment tax. The R&D repayment tax is due by the terminal tax date for the tax year in which the repayment event occurs. The amount of R&D repayment tax payable depends on the type of repayment event which occurs.

Transfer of intellectual property (and when migration or liquidation-induced repayment obligations do not apply)

In the case of the sale of research and development assets, the repayment amount (R&D repayment tax) will be capped, for that event, at the market value of the consideration for the disposal or transfer, multiplied by the tax rate.

That is, the R&D repayment tax is the lesser of any unrepaid R&D loss tax credits and the market value of the transferred assets (*intangibles' market value*), multiplied by the tax rate.

The unrepaid R&D loss tax credits are the total amount of R&D loss tax credits paid to the company over time:

- minus the company's terminal tax;
- minus tax credits giving rise to imputation credits (for example, provisional tax);
- plus refundable tax credits giving rise to imputation debits; and
- minus earlier payments of R&D repayment tax,

where those amounts are for tax years from the first time losses were cashed out until the repayment year.

"Intangible market value" is the market value of the research and development assets that are disposed of in the year, excluding assets sold for at least market value consideration that is assessable income for the taxpayer.

Example: Disposal or transfer of intangible property

Taylortronics Ltd is incorporated in May 2015 to develop new guidance systems for munitions. It cashes out losses of $150,000 and $300,000 for the 2015–16 and 2016–17 income years respectively. It receives tax credits of $42,000 and $84,000. It carries forward other losses of $50,000. In the 2017–18 year the company enters a manufacturing phase selling trading stock to earn net income of $150,000. It has taxable income of $100,000 and pays income tax of $28,000. In the 2018–19 income year it sells know-how for $250,000 (which is a capital receipt) and also has taxable income of $80,000. The sale triggers a repayment event, as the receipt from the sale of the know-how was not assessable income for Taylortronics. Therefore Taylortronics has to pay R&D repayment tax as well as income tax of $22,400. The R&D repayment tax is the lesser of:

1. the market value of the research and development assets sold that year multiplied by the tax rate. This amount is $70,000 [$250,000 * 0.28]; and

2. the unrepaid R&D loss tax credits. This amount is $75,600 [$42,000 + $84,000 – $28,000 – $22,400].

Therefore, Taylortronics pays R&D repayment tax of $70,000.

In the 2019–20 income year the company has taxable income of $150,000 and pays income tax of $42,000. Unless Taylortronics Ltd cashes out further losses, no further repayments will be required from that time. R&D Repayment tax and income tax payments made since the 2017–18 income year of $162,400 [$28,000 + $70,000 + $22,400 + $42,000] exceed the $126,000 [$42,000 + $84,000] of tax credits received for the 2015–16 and 2016–17 income years.

Example: Patent disposal or transfer at market value

Cameron Waterboards Ltd is incorporated in June 2015 to produce a hoverboard that can cross open bodies of water. It cashes out losses of $200,000 and $400,000 for the 2015–16 and 2016–17 income years respectively for R&D loss tax credits of $56,000 and $112,000. It obtains a patent for the technology in the 2016–17 year but realises that it is not in a position to develop the technology itself. In the 2017–18 year the company sells the patent at its market value of $1,000,000 and returns that amount as assessable income. As the patent sale has given rise to assessable income and was sold at market value, no defined repayment event occurs.

Example: Disposal or transfer of intangible property below market price

Viditech Ltd is incorporated as a subsidiary of BR Semiconductors Ltd to investigate new methods of layering semiconducting materials. Viditech cashes out losses of $200,000 and $400,000 in the 2015–16 and 2016–17 income years, for R&D loss tax credits of $56,000 and $112,000 respectively. It obtains a patent for the technology in the 2016–17 year and then, in the 2017–18 year, sells the patent to its parent for $500,000, well below the market value of $1,000,000. It has taxable income of $350,000 in the 2017–18 year and pays income tax of $98,000. The sale triggers a repayment event as the consideration received was below market value. Viditech Ltd is required to pay R&D repayment tax equal to the lesser of:

1. the remaining balance of the tax credit of $70,000 [$56,000 + $112,000 – $98,000]; and

2. the patent's market value multiplied by the company tax rate, which equals $280,000 [$1,000,000 * 0.28].

Therefore Viditech Ltd will pay R&D repayment tax of $70,000. The R&D loss tax credit balance is repaid in full.

Example: Multiple sales of intangible property

Replicosteo Ltd is incorporated in July 2015 to develop new synthetic materials for hip replacements that are similar to bone. Replicosteo cashes out losses of $500,000 and $800,000 for the 2015–16 and 2016–17 income years for R&D loss tax credits of $140,000 and $224,000 respectively. In the 2017–18 year, Replicosteo sells know-how for $600,000 (which is its market value and a capital receipt) and also has taxable income of $200,000 on which $56,000 of income tax is paid. That year Replicosteo has to pay R&D repayment tax of $168,000 [$600,000 * 0.28 < (140,000 + 224,000 – $56,000)], and has a tax credit balance of $140,000 remaining [$140,000 + $224,000 – $56,000 – $168,000].

Replicosteo sells further know-how in the 2018–19 year for $900,000 (which is its market value and a capital receipt) and has taxable income of $300,000 and income tax of $84,000 that year. Replicosteo has R&D repayment tax of the lower of the remaining balance of the tax credit – $56,000 [$140,000 + $224,000 – $56,000 – $168,000 – $84,000] and the value of the know-how sold that year multiplied by the company tax rate of $252,000 [$900,000 * 0.28]. Replicosteo therefore pays R&D repayment tax of $56,000, and so the R&D loss tax credit balance is fully repaid.

Sale of the company (and when migration or liquidation-induced repayment obligations do not apply)

If the company is sold, the repayment amount (R&D repayment tax) will be capped at the market value of the company shares that have been sold since the first tax loss was cashed out, multiplied by the tax rate.

That is, the R&D repayment tax is the lesser of:

- any unrepaid R&D loss tax credits; and
- the market value of the shares that have been sold (*shares' market value*) multiplied by the tax rate.

The unrepaid R&D loss tax credits are the total amount of R&D loss tax credits:

- minus the company's terminal tax;
- minus tax credits giving rise to imputation credits (for example, provisional tax);
- plus refundable tax credits giving rise to imputation debits; and
- minus earlier payments of R&D repayment tax,

where those amounts are for tax years from the first time losses were cashed out until the repayment year. This amount is the same as the unrepaid R&D loss tax credits for the other repayment events.

"Shares' market value" is defined to be the market value of all the company's shares disposed of or issued, that combined to cause the repayment event to be triggered, regardless of the year in which the disposals or issues occurred. This is because the repayment event can be triggered even if the disposal or issue events were to occur over a number of income years. The market value of the shares at each disposal or issue should be accumulated to calculate the shares' market value.

Example: Multiple transfers of shares

Hine and Akira incorporate a company, HydroPasifika Ltd, in October 2015 to develop large-scale hydroponic farms as alternatives to farming in increasingly saline soils on Pacific islands. As they expand, they dilute their shareholding in exchange for finance before selling the company entirely. The table below shows how this takes place:

Shareholding	Voting interest at 31/3/16	Voting interest at 31/3/17	Voting interest at 31/3/18	Voting interest at 31/3/19
Hine and Akira	100%	50%	25%	0%
Angel investor	0%	50%	0%	0%
Development Co	0%	0%	75%	100%

The table below shows how the shares were valued and sold (assume each sale takes place on the last day of the income year):

	31/3/16	31/3/17	31/3/18	31/3/19
Number of shares	500,000	1,000,000	1,000,000	1,000,000
New shares issued	0	500,000	0	0
Shares sold	0	0	750,000	250,000
Value per share	$0.25	$1.00	$2.00	$2.50
Value of issue/sale	N/A	$500,000	$1,500,000	$625,000
Value of company	$125,000	$1,000,000	$2,000,000	$2,500,000

The continuity breach occurs in the 2018–19 income year as Hine and Akira's shareholding falls from 100% ownership to 0%. R&D repayment tax is required to be paid for the 2018–19 income year because no group of persons have at least 10% of voting rights over the period from first receiving a credit (2015–16 income year) to a later income year (2018–19 income year).

HydroPasifika has received $750,000 of R&D loss tax credits over the four-year period, and has not paid any income tax in this period.

The R&D repayment tax will be lesser of:

1. the R&D loss tax credit balance of $750,000; and
2. the disposed or issued shares' market value multiplied by the company tax rate, which equals $735,000 [($500,000 + $1,500,000 + $625,000) * 0.28].

Therefore HydroPasifika will have R&D repayment tax of $735,000.

Change of residence or liquidation of company

The company will be required to repay any unrepaid cashed-out losses in full if the company ceases to be resident in New Zealand for tax purposes, becomes resident in a foreign country under a double tax agreement, or has a liquidator appointed.

In this case, the amount of R&D repayment tax payable is the total amount of R&D loss tax credits:

- minus the company's terminal tax;
- minus tax credits giving rise to imputation credits (for example, provisional tax);

- plus refundable tax credits giving rise to imputation debits ; and
- minus earlier payments of R&D repayment tax,

where those amounts are for tax years from the first time R&D tax losses were cashed out until the repayment year. This amount is the same as the unrepaid R&D loss tax credits for the other repayment events.

Example: Multiple loss reinstatement events

Nest Guarder Ltd is incorporated in August 2015 and is attempting to develop robots that protect the nests of native birds from predators. Nest Guarder cashes out losses of $400,000 and $700,000 for the 2015–16 and 2016–17 income years for R&D loss tax credits of $112,000 and $196,000 respectively. It also sells know-how for $100,000 in the 2016–17 income year (which equals the market value and is a capital receipt), and pays R&D repayment tax of $28,000 [$100,000 * 0.28].

In the 2016–17 tax year, the R&D repayment tax payment of $28,000 reduces the tax credit balance from $308,000 to $280,000.

In the 2017–18 tax year, Nest Guarder receives a $140,000 tax credit from cashing out a $500,000 loss and the company is sold for $1,000,000 (which equals the market value and is a capital receipt), triggering R&D repayment tax of $280,000 ($1,000,000 * 0.28 is less than the credit balance of $420,000). The tax credit balance is reduced to $140,000 [$420,000 - $280,000].

In the 2018–19 tax year, Nest Guarder migrates offshore, which triggers R&D repayment tax of the remaining tax credit balance of $140,000.

The table below shows when Nest Guarder cashes out losses and has loss repayment events where R&D repayment tax must be paid.

Year	Description	Change in value of tax credit balance	R&D loss tax credit balance
2015–16	R&D loss tax credit	+ $112,000 ($400,000 loss)	$112,000
2016–17	R&D loss tax credit Know-how sold; R&D repayment tax	+ $196,000 ($700,000 loss) – $28,000 (28% of $100,000)	$308,000 $280,000
2017–18	R&D loss tax credit Company sold; R&D repayment tax	+ $140,000 ($500,000 loss) – $280,000 ($1,000,000 sale)	$420,000 $140,000
2018–19	Company leaves NZ and can no longer satisfy residency requirement; R&D repayment tax	– $140,000 (migration)	$0

Multiple reinstatement events

If more than one repayment trigger event occurs in a given year, the amount to be repaid will depend on what events have occurred. For example, the loss of residence or liquidation of a company will trigger the repayment of all unrepaid amounts, regardless of whether a share or asset sale event has also occurred in the year. If the company is sold in the same year that R&D assets are sold, repayments in relation to both those events need to be paid, up to the total value of unrepaid R&D loss tax credits.

Reinstatement of repaid losses

Any cashed out tax loss that is repaid with R&D repayment tax will be reinstated via a deduction under section DV 26. However, for simplicity, those deductions cannot be allocated to a future income year.

Imputation

Sections OB 47B, table O2: imputation debits row 20B and section YA 1 of the Income Tax Act 2007

No credit balance will arise in an imputation credit account of a company that has cashed out a loss until that company has repaid all the cashed-out amounts (whether through normal payment of income tax or via R&D repayment tax). This is to maintain neutrality with taxpayers who are not able to cash out losses. However cashing out a tax loss will not put a taxpayer's imputation credit account into a debit balance. The rules are set out in section OB 47B of the Income Tax Act 2007.

Example: No imputation credits arise until tax credit balance repaid

R&D Biotics' imputation credit account has a zero balance at the beginning of the 2015–16 year. R&D Biotics cashes out losses of $100,000 in the 2015–16 year and $125,000 in 2016–17, receiving tax credits of $28,000 and $35,000 respectively. R&D Biotics pays no tax for these years. R&D Biotics pays income tax of $22,400 in 2017–18 and $35,000 in 2018–19. R&D Biotics will not have a credit balance (or a debit balance) in its imputation credit account for any of income years from 2015–16 to 2018–19 inclusive, This is because the amount cashed out has not been fully repaid by the end of the 2018–19 income year, with a balance of $5,600 remaining. R&D Biotics earns $150,000 in the 2019–20 income year and pays tax of $42,000. It will therefore have a credit balance of $36,400 for income tax paid for the 2019–20 income year (income tax of $42,000 – loss cash-out balance of $5,600).

Administration

Sections LA 7, LB 4B, MA 1, MF 6 and RM 10 of the Income Tax Act 2007; sections 70C, 81(4)(v) and (w), and 97C of the Tax Administration Act 1994

Companies will need to apply to cash out their tax losses. Applications will need to be made by the time the company files the corresponding income tax return. While the application will need to be in electronic form, the income tax return does not have to be filed electronically. A company with R&D repayment tax to pay must include the amount in any application to cash out their tax losses they file for the year, or file a separate statement if there is no such application.

Like other tax credits, R&D loss tax credits may be used to satisfy an existing tax liability of the company.

Exceptions have been added to the secrecy rules to allow Callaghan Innovation and the Ministry of Business, Innovation and Employment to support Inland Revenue in the administration of the R&D loss tax credits. This will permit information-sharing between

Inland Revenue and Callaghan Innovation to help Callaghan Innovation assist Inland Revenue in making decisions on the R&D eligibility for difficult applications. The Ministry of Business, Innovation and Employment will also provide ICT and policy support to Inland Revenue.

Consequential amendments

Section DF 1(1BA) of the Income Tax Act 2007 and the Goods and Services Tax (Grants and Subsidies) Order 1992

Consequential amendments have been made in section DF 1(1BA) of the Income Tax Act 2007 and to the Goods and Services Tax (Grants and Subsidies) Order 1992. This is to ensure that:

- the bar on deductions in relation to Government grants does not apply for cashed out losses; and
- the cashed out loss is not subject to GST.