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Taxation Deductions Available for R&D Expenditure in Australia—Past and Present

Policy Brief

Dr John H Howard, January 2024

In Australia, Research and Development (R&D) tax incentives have long been regarded as a means to create new knowledge and foster innovation and economic growth. Understanding the range of tax deductions available for R&D and their connection to innovation is crucial for businesses, policymakers, and analysts alike.

1 The current Australian Research and Development Tax Incentive (RDTI) Framework

The current RDTI Framework derives from the 2016 Review of the RDI Tax Incentive (Ferris et al., 2016) and subsequent decisions by the Government up until the enactment of amended legislation in 2021 (initially presented to Parliament in 2019).

This 2016 review was commissioned as part of the *National Innovation and Science Agenda* (Department of Industry, Science and Resources, 2015) and aimed to identify opportunities to improve the effectiveness and integrity of the program while encouraging additional R&D expenditure.

The review found that:

> … the programme falls short of meeting its stated objectives of additionality and spillovers. There are a number of areas where improvements could be sought in order to improve the effectiveness and integrity of the programme and achieve a stronger focus on additionality.
>
> Based on the best estimates of additionality and spillovers, the panel found that the programme could be better targeted. The areas of improvement identified in this review would be likely to generate greater benefit from the programme for the Australian economy Ferris et al., 2016, p. 2).

However, a statistical analysis prepared for the review by the Swinburne Centre for Transformative Innovation found that there was

> … a significant difference in R&D spending between firms that benefit from the tax subsidies and those that do not, controlling for other observable firm-level characteristics comprising industry, turnover, wages and participation in other forms of government support. The most compelling evidence of a causal effect of policy comes from the difference-in-difference estimates. These suggest that firms that were claiming the R&D tax Concession in 2011 and benefited from the more generous R&D Tax Incentive in 2012 increased their R&D spending by approximately 14 per cent (Thompson & Skall, 2016).

The report of the 2016 Review provided recommendations to boost the additionality and spillovers from R&D activities, including introducing a collaboration premium, a cap on the annual cash refund, and an intensity threshold for larger companies. The report stressed the need for a more targeted approach, directing funds towards activities producing higher economic benefits (Ferris et al., 2016).

Following the Review and deliberations by the Government and the Parliament in 2019 and 2020 the *Treasury Laws Amendment (a Tax Plan for the COVID-19 Economic Recovery) Bill* was enacted (The Treasurer (the Hon Josh Frydenberg MP), 2020, Lin, 2021)[1]. The Explanatory Memorandum runs to 170 pages. The main provisions of the Act are outlined below.

Expenditure threshold*:* The R&D expenditure threshold increased from $100 million to $150 million, and the R&D expenditure threshold is now a permanent feature of the law.

R&D tax offset rate for small R&D entities*:* R&D entities with aggregated turnover of less than$20 million are generally entitled to a refundable R&D tax offset equal to the R&D entity's corporate tax rate plus an 18.5% premium.

R&D tax offset for large R&D entities*:* R&D entities with an aggregated turnover of $20 million or more are entitled to an R&D tax offset equal to the R&D entity's corporate tax rate plus a premium based on the incremental *R&D intensity* of its R&D expenditure.

The *R&D intensity* is the proportion of the R&D entity's total expenses spent on R&D expenditure for the income year as reported in the company income tax return and taken from the company's financial statements.

[1] Khai-Yin Lim is a Barrister and Chartered Tax Adviser at the Victorian Bar

The intensity premiums in the table below apply to notional deductions within a range of R&D intensity (The Treasurer (the Hon Josh Frydenberg MP), 2020, p76).

Table 4.1 R&D tax offset intensity premium

Tier	R&D intensity range	Intensity premium
1	Notional deductions representing up to and including 2% of total expenses	8.5% points
2	Notional deductions representing greater than 2% of total expenses	16.5% points

The intensity premium provides substantial support for incremental R&D expenditure by large companies that devote a significant portion of their overall operations to R&D eligible for the R&D tax incentive.

Under the government's reforms to corporate tax rates, the tax rate for companies with an aggregated turnover of less than $50 million will be further reduced from 26% to 25% from 1 July 2021. The tax rate for companies with an aggregated turnover of more than $50 million remains at the 30% corporate tax rate.

The Explanatory Memorandum accompanying the legislation (The Treasurer (the Hon Josh Frydenberg MP), 2020, p 76) demonstrates how the R&D tax offset for large R&D entities applies:

Example 4.2 The R&D tax offset for large R&D entities

Contrast Industries has notional deductions of $160 million in the 2021–22 income year, exceeding the $150 million expenditure threshold. In the same income year, Contrast Industries had an expenditure of $1 billion. Its aggregated turnover exceeds $50 million, meaning it is subject to the 30 per cent corporate tax rate.

Contrast Industries has an R&D intensity of 15 per cent ($150 million divided by $1 billion). The portion of the R&D expenditure in excess of the $150 million expenditure threshold ($10 million) is calculated separately (see below).

Contrast Industries' R&D tax offset for the income year is calculated as follows:

Tier	Intensity Range	R&D Premium	Notional Deduction Applied	Offset Amount
1	0-2%	8.5%	$20m	$7.7m
2	>2%	16.5%	$130m	$60.45m
Excess	NA	Nil	$10m	$3m
Totals			$160m	$71.45m

Source: "Amendments to the research and development tax incentive scheme" (Lin, 2021, p171)

***Enhancing the integrity of the R&D tax incentive**:* The integrity of the R&D tax incentive is enhanced by clawing back the benefit of the R&D tax incentive to the extent an entity has received another benefit (e.g. a government grant or reimbursement) from an R&D activity.

***Recoupments**:* The clawback is composed of a 10% additional tax on the recoupment and any other expenditure required as a condition of the recoupment. Example 5.1 in the Explanatory Memorandum (p. 81) illustrates how the recoupment rules apply:

Example 5.1 Recoupments

Cross Innovations is committed to spending $2 million to undertake R&D activities, regardless of whether it successfully obtains a grant.

During the 2020-21 income year Cross Innovations receives a $1 million grant to undertake R&D activities. In addition to the grant, Cross Innovations must spend an additional $1 million of its own money as a condition of the grant. Cross Innovations receives an offset of $870,000 (applying the 43.5 per cent offset rate to the $2 million expenditure). Cross Innovations would have otherwise been entitled to a deduction worth $520,000 at the 26 per cent corporate tax rate. Therefore, the incentive component of the offset is the difference of $350,000.

In the same income year, the recoupment rules clawback only 10 per cent of the total $2 million spent under the terms of the grant, which is $200,000. Cross Innovations keeps the remaining $150,000 of the offset incentive. However, the grant alone is intended to constitute sufficient incentive without the additional $150,000 from the R&D tax incentive.

***Feedstock adjustments**:* Feedstock adjustments apply to recoup the benefit of the R&D tax incentive to the extent it relates to goods, materials or energy used to produce marketable products sold or applied to the R&D entity's own use. The R&D tax incentive is effectively enjoyed on feedstock expenditure to the extent that it is not offset by feedstock revenue. The adjustment is one-third of the lesser feedstock expenditure or feedstock revenue in the R&D entity's assessable income.

Example 5.2 in the Explanatory Memorandum (p.83) demonstrates how the adjustment provisions apply to both a large R&D entity and a small R&D entity:

Example 5.2 Feedstock adjustments

In the 2020–21 income year, Wayland Enterprises, a large R&D entity, spends $100,000 on the development of a new product, producing one tangible product, which it then sells for $110,000. Wayland Enterprises is entitled to a $38,500 offset (with an incentive component of $8,500).

$33,333 is included in Wayland Enterprises' assessable income (one third of the feedstock expenditure). After applying the corporate tax rate to the amount included in assessable income, the feedstock adjustment would claw back 10 per cent: $10,000, which is more than the incentive component.

However, if Wayland Enterprises was a small R&D entity in the same position, it would claim an offset of $43,500 (with an incentive component of $17,500).

The $33,333 would be included in assessable income and taxed at the 26 per cent corporate tax rate. The feedstock adjustment would claw back just 82.67 percent of the offset: $8,666.58.19

Example 5.3 in the Explanatory Memorandum (p.88) shows how the clawback amounts are determined in relation to feedstock adjustments.

Example 5.3 Clawback amounts

In a previous example, Contrast Industries had the following amounts for the 2021–22 income year (the offset year):

- aggregated turnover in excess of $50 million
- expenditure of $1 billion
- notional deductions of $160 million
- a non-refundable R&D tax offset of $71.15 million.

Further to this example, in the 2023–24 income year, Contrast Industries sells a tangible product developed during its 2021–22 income year R&D activities. The tangible product is sold for $20 million but cost $25 million to develop. All of the costs were included in Contrast Industries' notional deductions for the 2021–22 income year.

The clawback amount is the lesser of the market value of the tangible product on sale (feedstock revenue) and the tangible product's cost. Here, Contrast Industries has a clawback amount of $20 million.

***Balancing adjustment clawback amounts**:* The clawback amounts that relate to assessable balancing adjustments that clawback the incentive component of the R&D tax offset are as follows:

- For R&D assets held only for R&D purposes, the clawback amount is the balancing adjustment amount capped at the asset's total decline in value (its tax cost less its adjusted value)
- For R&D assets held partially for R&D purposes, the clawback amount is reduced in proportion to its non-R&D use.

The provisions that claw back the deduction component of the R&D tax offset (i.e. the amount of the offset amount that reflects the R&D entity's corporate tax rate) continue to operate where appropriate. Feedstock revenue and government grants are generally assessable as ordinary income.

The Commissioner may apply the general anti-avoidance rule in Pt IVA of the Income Tax Assessment Act 1936 (Cth) to prevent R&D entities from obtaining tax benefits by accessing a refundable or non-refundable R&D tax offset from a tax avoidance scheme.

***Improving the administration and transparency of the R&D tax incentive**:* The administrative framework is improved by making information about R&D expenditure claims transparent, enhancing the guidance framework to provide greater certainty to applicants, and streamlining administrative processes. Amendments include:

- publishing information about the amount of notional deductions claimed by R&D entities for R&D activities
- allowing the Board of Innovation and Science Australia (the Board of ISA) to make binding determinations about how it will exercise its powers and perform its functions and duties in relation to the R&D tax incentive
- broadening the scope of the Board of ISA's and its committees' delegation powers to include delegating not only to Senior Executive Service employees but also to members of Australian Public Service staff assisting the Board

imposing a 3-month limit on extensions of time unless the extension is granted to allow an applicant to wait for the outcome of a separate pending decision.

Definition of business research and development in the RDTI

The RDTI definition of business R&D derives from the OECD definition of R&D set out in what is known as the *Frascati Manual* as "creative and systematic work undertaken in order *to increase the stock of knowledge* – including knowledge of man, culture and society – and to devise new applications of available knowledge" (OECD, 2015). The Manual further explains that for work to be classified as R&D, it must satisfy five core criteria:

- Novel: It must generate new knowledge or technologies that aren't obvious to someone well-versed in the area.
- Creative: It must lead to new concepts and ideas.
- Uncertain: The outcomes of R&D cannot be known in advance.
- Systematic: It must be conducted methodically and follow a plan or research design.
- Transferable and/or Reproducible: The results should lend themselves to being replicated or transferred to other settings.

AusIndustry and the Australian Taxation Office (ATO) define Research and Development (R&D) for the purposes of the Research and Development Tax Incentive (RDTI) broadly in line with the Frascati Manual but are much narrower in scope. Their definition defines two types of R&D activities: Core R&D activities and Supporting R&D activities and are specified in Section 355-25(1) of the *Income Tax Assessment Act 1997*.

Core R&D activities are defined as "experimental activities—

(a) whose outcome cannot be known or determined in advance on the basis of current knowledge, information or experience, but can only be determined by applying a systematic progression of work that:

i. is based on principles of established science; and

ii. proceeds from hypothesis to experiment, observation and evaluation, and leads to logical conclusions; and

(b) that are conducted for the purpose of generating new knowledge (including new knowledge in the form of new or improved materials, products, devices, processes or services)" (AusIndustry, 2020).

Supporting R&D activities are those that are directly related to core R&D activities. They must be undertaken for the dominant purpose of supporting core R&D activities. AusIndustry advises that whether a supporting R&D activity directly relates to a core R&D activity will depend on the applicant's circumstances (AusIndustry 2020, p29).

Successful experimental activities do not necessarily lead to the development of marketable products. The business decision to enter or create a market has to have regard to commercial considerations of cost, risk and return—or the availability of public subsidies to deliver "public good" or "national benefit" outcomes.

There is a practice by some businesses of holding onto or "stockpiling" R&D findings or prototypes that are not immediately marketable. These might be revisited later when market conditions change or when new technologies or methodologies make them more viable—and innovative. They may also be valuable for on-sale or licensing to other businesses, particularly if they represent a significant advancement in a technical area.

How the RDTI definition of R&D differs from the business definition

The business definition of R&D, which is informed by accounting standards published by the Australian Accounting Standards Board (AASB) and International Financial Reporting Standards (IFRS), is focused on how R&D activities should be reflected in a company's financial statements.

The AASB and IFRS (Accounting Standards Board, 2007) make a clear distinction between research and development activities on the following basis—

- *Research*: Original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.
- *Development*: The application of research findings or other knowledge to a plan or design for producing new or substantially improved materials, devices, products, processes, systems, or services before they are commercially produced or used.

These development activities are closely aligned with innovation, which is out of scope in the RDTI (see discussion of innovation in the concluding comments section of this Paper on page 15 below).

Differences between the legislative and accounting treatment arise in the following areas:

- Purpose: The RDTI definitions are constructed to incentivise and promote specific types of R&D through tax offsets, while the accounting definitions provide guidance on recording and reporting R&D expenses in financial statements.
- Eligibility vs. Recognition: The ATO/AusIndustry definitions determine eligibility for a tax incentive, whereas the accounting definitions determine the recognition and measurement of R&D expenses.
- Capitalisation Criteria: The accounting definitions include criteria for capitalising development costs. In contrast, for RDTI purposes, the costs can be claimed regardless of whether they are capitalised or expensed in the financial statements, provided they meet the legislative requirements.
- Scope: The RDTI definitions are more stringent, emphasising the scientific method and new knowledge creation. Accounting definitions, while still requiring a degree of innovation, have a broader scope regarding the types of activities that might qualify as R&D.

Understanding these distinctions is crucial for businesses, as they must navigate the tax and accounting rules when engaging in R&D activities, ensuring compliance with each set of guidelines while optimising the financial reporting and tax outcomes of their R&D investments. They can significantly impact the eligibility for the RDTI. Illustrative examples are provided below.

- A software company develops a new app. For accounting purposes, it capitalises the development costs after technical feasibility is established, treating these as an asset. However, for RDTI purposes, the project might not qualify if it doesn't meet the criteria for experimental development, such as generating new knowledge or technology. This means the company can capitalise the expense but may not receive the RDTI for it.
- An engineering firm is improving or refining an existing product. From an accounting perspective, the costs are immediately expensed as routine product development. However, if part of this process involves resolving technical uncertainties this part of the work might qualify for the RDTI even though it is expensed in the financial statements.
- A pharmaceutical company undertakes various R&D activities. For accounting purposes, it groups all R&D-related expenses together. However, for the RDTI claim, the company needs to provide detailed evidence showing how specific activities meet the definition of core or supporting R&D activities. This might involve separating out routine testing (which does not qualify) from experimental trials (which are more likely to qualify).
- A manufacturing company invests in research to improve its production efficiency. While the costs are classified as R&D for accounting purposes, some of these activities, such as market research or standard quality testing, would be excluded from RDTI, even if they are integral to the company's R&D process.
- A biotech company that has been claiming the RDTI for a multi-year project. A legislative change redefines eligible R&D, focusing more stringently on novel scientific advancements. The ongoing project, previously eligible, might now fall outside the revised eligibility criteria, impacting the company's future claims.

There are also some differences between the total R&D expenditure reported by AusIndustry, based on RDTI claims) and the Australian Bureau of Statistics *Survey of Business Expenditure on R&D* (BERD). The main source of difference would relate to the RDTI claims being based on the eligibility criteria defined by the RDTI legislation, whereas the ABS BERD survey follows international guidelines for what constitutes R&D but might encompass a broader range of activities, including some that may not qualify for the RDTI.

Apart from timing differences, these differences are not thought to be substantial: the majority of businesses selected for inclusion in the ABS survey are known performers of R&D from a previous survey. In some cases, the business has been selected because it's been identified as a likely R&D performer, having applied for the R&D Tax Incentive scheme or been a recipient of an R&D grant in recent years (ABS, 2022).

RDTI support for collaboration

The Australian RDTI has no specific arrangements to encourage business R&D collaboration with universities. Among the countries profiled in this Paper, only Japan has a specific arrangement in the form of the "Open innovation activity-based R&D tax credit". The tax credit is available for—

> … joint or contracted R&D with universities and national research institutes at a rate of 30%, and for joint or contracted basic or applied research or R&D for the purpose of using intellectual property rights with R&D venture corporations at a rate of 25% (previously 20%) and with others including large corporations etc. at a rate of 20% (OECD, 2015b).

In Australia, the RDTI may support university investments made by a company as a contractor. Activities must meet the definition of R&D, and the company claiming the tax offset must have control over the R&D activities that the university is providing, which means that the company must be actively involved in managing, directing, and supervising the R&D activities that are being conducted by the university (AusIndustry, 2020).

2 Navigating the RDTI application process

The legislation and regulations surrounding the RDTI are complex. This complexity makes it challenging for many companies, particularly smaller ones without dedicated tax professionals, to navigate the claims process effectively. For example, Thompson and Webster (2012) made the following observation in a paper on the design of R&D support schemes:

> Our interviews and business surveys revealed that the cost of knowing about industry grant schemes is larger than most people imagine. R&D managers in large firms are often not aware of large R&D grant programmes and small and medium firms are even less informed. Several respondents provided anecdotal evidence that many smaller firms are still not aware of the R&D tax credit/concession even though it has existed for twenty-five years. According to our interviews, large firms are advised by large accounting firms and have the greatest awareness and engagement in the R&D tax concession scheme.
>
> One in five of the large R&D active firms we interviewed had not even considered applying for a grant under one of the competitive R&D schemes. Survey respondents who had applied for R&D grants were also given the opportunity to make open-ended comments regarding their experience. Collectively, by far the most common themes reported related to communication and understanding the "rules of the game" Thompson and Webster (2012).

The following "rules of the game" are drawn from the AusIndustry R&D *Tax Incentive Guide to Implementation* (AusIndustry, 2020). While largely written in plain English, they are both comprehensive and very detailed.

Purpose of the R&D

To be eligible for the RDTI one of the substantial purposes is to conduct R&D to generate new knowledge. Generating new knowledge does not have to be the sole purpose of the R&D activity, but it must be a substantial purpose (AusIndustry, 2020, p.16).

If the only purpose at the time activities are started is for a reason other than to create new knowledge, it will not meet the criteria. For example, activities for some other purpose and generating knowledge by accident rather than design will not meet the criteria. However, if applicants go on to plan and conduct core R&D activities to gain additional knowledge, then the new R&D activities may be eligible.

The outcome cannot be known in advance.

For an activity to be a core R&D activity, a *competent professional* cannot know or determine the outcome of the activity based on current knowledge anywhere in the world. The outcome needs to be one that can only be determined by applying a systematic progression of work based on principles of established science (AusIndustry, 2020, p.12).

AusIndustry expects applicants to search worldwide for an existing way to achieve outcomes before R&D activity is commenced. They expect applicants to have records to show this.

Applicants need to assess that a competent professional cannot know or determine the outcome of the core R&D activity without an experiment as part of a systematic progression of work and cannot know or determine the outcome based on knowledge, information or experience that is publicly available or reasonably accessible anywhere in the world.

A competent professional is regarded as a person who, in their field:

- has knowledge and experience
- has qualifications (if appropriate) or can otherwise act with a reasonable level of skill
- keeps

A competent professional will have knowledge, skills, experience and qualifications in a field related to the R&D, will be up to date with developments, and will have access to knowledge and resources around the world. Such resources include the internet, relevant industry journals and other competent professionals in the field. This might be the applicant, someone else in the organisation or industry sector, a consultant or an academic expert.

If the technical or scientific idea that applicants are testing is in their area of expertise, then the applicant may know whether relevant knowledge, information or experience is available. But even if the applicant or someone else in the organisation is an expert in the field, they will need to research other sources to check that knowledge of achieving the outcome does not exist worldwide. This may involve review of scientific, technical or professional literature, internet and patent searches, and seeking advice from an expert or experts.

AusIndustry expects applicants to keep evidence of their enquiries.

Systematic progression of work

AusIndustry expects an application to be based on a *systematic progression* of work based on the principles of established science. The progression of work must include the following elements (AusIndustry, 2020, p.13):

1. Hypothesis
2. Experimentation
3. Observation
4. Evaluation
5. Logical conclusions

All these elements need to be present within an RDTI application. It must meet all the definitions described in detail in the *Guide* for it to be an eligible core R&D activity. The core R&D activity may progress over several income years, but applicants must conduct one or more elements of their systematic progression of work in one income year.

AusIndustry expects applicants to keep records to show their intent to conduct all elements of the systematic progression of work. It expects evidence to show when and how activities proceed from one element to the next and how they meet the definition of core R&D activities.

While the R&DTI is a self-assessment program, AusIndustry may review an application. The review will cover an applicant's systematic progression of work as a whole.

Exclusions

Sections 355-25(2) of the *Income Tax Assessment Act 1997* list activities that cannot be core R&D activities for the R&DTI (AusIndustry 2020, p.19). The list is extensive:

(a) market research, market testing or market development, or sales promotion (including consumer surveys);

(b) prospecting, exploring or drilling for minerals or petroleum for the purposes of one or more of the following:

(i) discovering deposits;

(ii) determining more precisely the location of deposits;

(iii) determining the size or quality of deposits

(c) management studies or efficiency surveys;

(d) research in social sciences, arts or humanities;

(e) commercial, legal and administrative aspects of patenting, licensing or other activities;

(f) activities associated with complying with statutory requirements or standards, including one or more of the following:

(i) maintaining national standards;

(ii) calibrating secondary standards;

(iii) routine testing and analysis of materials, components, products, processes, soils, atmospheres and other things;

(g) any activity related to the reproduction of a commercial product or process:

(i) by a physical examination of an existing system; or

(ii) from plans, blueprints, detailed specifications or publicly available information;

(h) developing, modifying or customising computer software for the dominant purpose of use by any of the following entities for their internal administration (including the internal administration of their business functions):

(i) the entity (the developer) for which the software is developed, modified or customised;

(ii) an entity connected with the developer;

(iii) an affiliate of the developer or an entity of which the developer is an affiliate.

The *Guide* goes on to explain in detail what is covered and not covered by the exclusions (AusIndustry 2020, pp.20-28).

Application process

Applications for the RDTI can be lodged through the RDTI customer portal. In addition to the person in charge of R&D at an application company (principal authority), applications can be lodged by staff at the applicant company, an individual tax agent or R&D consultant, a tax agent, or a consultancy.

Typically, RDTI consultants come from scientific or STEM backgrounds, which is essential for comprehending the intricate details of research and development activities. Approximately 95% of the work revolves around non-financial elements. Understanding the scientific experimentation process, including hypothesis testing and other technical aspects, is paramount (Cusack, 2022).

As a result, most accountants prefer to collaborate with specialists who possess the necessary expertise in the technical aspects of research and development. R&D consultants work with accountants in an endeavour to seamlessly integrate the RDTI schedule into the Income Tax Return, allowing applicants to benefit from financial and technical expertise while keeping their trusted accountant.

Advice from advisory firm *Bullet Point* (Cusack, 2021) is that RDTI applicants must satisfy themselves that all work included in an R&D application satisfies the following basic criteria:

- Are the activities experimental, with outcomes that cannot be known in advance and are conducted to generate new knowledge?
- Does the project generate new *industry-wide* knowledge—not just for the applicant's company? This covers knowledge about improved materials, products, devices, processes, or services[2].
- Were technical issues/failures encountered while testing?

BulletPoint advises that the biggest issue in the process is that applicants may not understand what is and isn't eligible. Many applicants will justify to themselves that something is experimental without basing it on guidance. Determining eligibility comes down to the Government's definition of R&D and not always what a business regards as R&D (Cusack, 2021).

The advice continues that *"the key thing for an applicant to understand is developing something and making it without technical issues, or iteration is that the government will say that the knowledge to develop this likely already exists and is not experimental".*

Other critical aspects of the application process are provided below.

Critical aspects of the RDTI application process

Critical Step	Actions
Register with AusIndustry	Applicants must register before they claim. This must be done within ten months after the end of the income year in which the activities were conducted. When registering, applicants must provide detailed information about R&D activities, including the nature of the experiments, hypotheses, and the new knowledge to be produced. After registration, the RDTI benefit will be claimed through a company tax return. The ATO manages this part of the process.
Record salary and contractor expenses systematically	Calculating salaries and contractor expenses are the main components of just about all claims. Applicants are expected to calculate the R&D proportion of each employee/contractor's total time. The best way this can be done is with timesheets. Not only will timesheets be one of the first things the ATO will want to see, but an R&D claim can't really be approved without them. *The government has repeatedly stated that it wants to see timesheets, which will often undo claims upon inspection*.
Exclude overseas work	Many applicants will unwittingly include development costs for work that crosses from domestic to overseas. Sometimes, these are lump sums, and sometimes, it is an external development company that offshore part of their work. Often, the client won't know the developer is doing this and will assume they are paying for domestic development and only find out once the claim is being investigated. It is important to be proactive and ask developers if they offshore development costs. *If technical personnel constantly travel, their travel dates should be used to determine what portion of time happened overseas and exclude this.* Applicants will require an *'Advanced Finding'* to claim overseas costs. This is an entirely different and stricter claim. Advanced Findings for overseas work require rigorous justification in the year the claim is made.
Claimable R&D is *not* "business as usual"	The government is clear that any work conducted independently of the R&D project or would occur anyway is not eligible. This includes administrative costs, minor bug fixes/changes, and other standard business upkeep. Sometimes, people keep claiming the RDTI because they once had an experimental project. Just because an applicant developed something experimental doesn't mean it will always be in a state of experimentation. Applicants must draw a line where the R&D starts and stops within expenses and activities. If applicants intend to claim just about every cost they have incurred, they will need to be able to provide a lot of evidence or expect to fail an audit. This has been a huge focus for the Incentive of late, with some large companies getting this wrong. It has put many businesses into hot water in the past two years. It creates a challenge for businesses where continuous R&D *is* the business—such as platform-based software companies. *Essentially, companies are either misunderstanding the concept of eligible R&D or trying to rort the system by claiming too much.*

[2] This approach is grounded in the principle that publicly subsidised R&D should contribute to the broader innovation system and industry development, not just to the internal advantage of the firm involved. However, companies will want to protect their competitive advantage, and there is no requirement by ATO/AusIndustry that the specific results of the R&D be shared publicly or with the industry. The knowledge generated may lead to intellectual property (IP) that a company would typically seek to protect. The intention behind the RDTI's design is to incentivise R&D activities that have the potential to benefit the economy at a macro level, even though the direct outcomes may initially benefit the individual company conducting the research. But the legislation governing the RDTI ensures that information about specific R&D activities is not made public and is protected from disclosure except in very limited and specified circumstances.

Critical Step	Actions
Prepare for an Audit	If the ATO or AusIndustry want to look further into an RDTI claim, they will issue a Request for Information (RFI). This will either be on the applicant's financial conclusions or on technical work. In the event of either, the government will want to see things like payslips, R&D calculations, test notes, timesheets, or other relevant evidence. What most applicants don't do is collate this information while making the claim, causing the ensuing RFI to amount to a lot of work. Sometimes, an RFI can take just as long or double the time it takes to make the application. The government doesn't want to see (and will sometimes reject) evidence where the "ink is still fresh". ***A claim can be audited up to five years after it has been registered and paid out.*** *Collecting evidence as claims are made makes the application more accurate and will drastically reduce the hours put into an RFI response. Applicants must be able to provide* evidence of the experimental work described in the application activities. This means keeping things like test reports, version breakdowns, and photographic and/or video evidence of development.
Distinguish between employees and "associates"	One of the key distinctions on the financial side of a claim is distinguishing between *regular employees* and *associates.* An associate is essentially anyone with an interest in the company or a family member. These people need to be segregated as a claim can only include the costs of these individuals if they have been physically paid within the financial year. With other employees, incurred payments made after the end of the financial year can be included, provided proof is provided. of a requirement to make the payment. Associate payments are frequently mentioned in state RDTI reference groups and are identified as one of the biggest issues in claim investigations. *Claims for associate payments can be made in the following financial year if there is a claim to be made in that year.*
Marketing and advertising costs must *not* be included	Despite many people wanting to include costs like market feasibility and finding customers, this is not regarded as R&D. Applications cannot include any costs that stray into marketing or advertising as they are not regarded as experimental by nature. *Applicants may be inclined to say market research helped influence further development and iterations, but this won't hold up under review. To be safe, exclude any costs that resemble pushing the product.* If applicants have costs that aren't advertising or marketing lumped into an 'Advertising' item in the P&L, these should be separated out for transparency. If the company sold prototypes, it may be necessary to adjust feedstock calculations.
Trademarking or Patent costs cannot be included.	This will often trip new companies up. They have a new piece of IP, and they want to develop it, but they want to secure its technology; they will apply for a patent and/or trademark before beginning serious development. Securing the IP is not an experimental expense and is specifically excluded under the R&D Tax Incentive. If a company has spent most of its costs on securing IP in the financial year, it is unlikely that an applicant will have enough for a claim. *IP costs are not technical in nature and do not relate to any tangible development activity.*
Know the structure of overheads	The field of overheads is a bit "murky", but a few clear inclusions are allowed. These fall under indirect R&D costs—essentially "Other" nondescript expenses incurred while conducting the project. These can include such things as rent, electricity, gas, water, internet and mobile phone, *domestic* travel, bookkeeping, insurance, and depreciation. Applicants shouldn't estimate a general percentage from the company's P&L and multiply it by eligible R&D costs. It is important to be exact, using actual figures. Further, each expense should be connected to some form of R&D activity—they may be indirect, but they still must relate. *Overhead inclusions may seem small, but these will be queried. Rental expenses can only be justified if it houses people and staff actively working on the R&D project.*
Keep it conservative	Applicants should keep R&D claims conservative. This goes for both technical work and financials: over-including activities directly links to expense over-allocation. What may seem like a great boost on an estimated rebate will appear immaterial in the face of repaying a rebate. The best thing to do is slightly underestimate all inclusions—this goes for R&D percentage, equipment inclusions, and any cost or allocations being calculated. Being conservative may appear to contradict an applicant's interests: applicants want to maximise their claim and get as much out of the Incentive as possible. The history of failed RFIs indicates a good chance that the cost of R&D work has been overestimated.

Based on material form R&D Advisers Bulletpoint: https://www.bulletpoint.com.au/

Professional RDTI advisers

The complexity of the RDTI process has given rise to the emergence of a significant advisory and consultancy subsector within the professional, scientific and advisory services industry (ANZSIC Division M) offering services that cover—

- Identifying qualifying R&D activities—sometimes following a "review" of potential claims
- Documenting R&D processes
- Preparing and lodging claims

- Assisting with compliance and audits.

The industry includes a range of providers, from specialised boutique advisory firms to large multinational professional services networks that offer tax and advisory services as part of their broader portfolio. The presence of the industry raises a contradiction: it facilitates access to R&D incentives for firms that might otherwise lack the expertise to claim them, potentially increasing the reach and impact of the incentives; however, it runs the risk of inflating claims and the pursuit of aggressive tax positions—leading to tensions with the ATO and AusIndustry. The tax practices of large professional advisory firms are often the most profitable.

Fees and charges can vary from hourly rates relating to time and cost, like traditional accounting and law firms, ongoing retainer arrangements, and success fees. For an SME, a straightforward claim prepared by a tax agent or R&D advisers/consultants would require 60 hours of work, costing in the region of $20,000. Success fees range from 10 to 30% of the claim.

The industry's growth has been such that the ATO and AusIndustry have stepped up their compliance efforts, issuing guidance and warnings about the need for accurate claims. The ATO has specifically highlighted the role of advisors and consultants in ensuring that claims are legitimate and in line with the policy objectives of the RDTI.

Many professional RDTI advisers have published detailed information and guidelines about accessing the RDTI (Gleeson, 2021; Michael Johnson Associates, 2023).

System stability

In December 2023, Kris Gale from Michael Johnson Associates wrote an assessment of the “health” of the RDTI (Gale, 2023)

The RDTI – How Is The Patient Doing?

"I advise my clients not to claim the R&D Tax Incentive (RDTI). The Federal Government is cracking down on taxpayers, and it's just not worth the risk."
This was the response I was getting from accountants across Australia back in 2019 when one could be excused for thinking that the government, via the dual agency of the ATO and AusIndustry, was trying to so restrict the eligibility criteria of the RDTI that the program was heading to irrelevance. Added to that, there was pending legislation to significantly reduce the value of the RDTI, particularly for larger organisations.
Despite the environment described above, I was able to demonstrate at the time that the program remained worth claiming, provided you understood what the legislation was actually designed to support and you kept contemporaneous records of what you did and what you spent.
Jump forward to 2023 and this is what I am constantly hearing from accountants all around Australia:
"I advise my clients not to claim the R&D Tax Incentive (RDTI). The Federal Government is cracking down on taxpayers, and it's just not worth the risk."
Well, if the case to make claims was more than arguable back in 2019, a series of fortunate events since that time has made the business of accessing the RDTI a far more secure and valuable one. So much so that eligible companies really have no excuse not to be making annual claims. Those key events may be summarised as follows:

- The administrative crackdown came to an end in late 2019 due to a combination of the courts confirming the breadth of the definition of eligible R&D activities, an influential Small Business and Family Enterprise Ombudsman's report and public debate.
- The Coalition dropped its RDTI cuts in the October 2020 Budget due to the acknowledgement of the critical role played by science and innovation in the early days of the pandemic and the fact that the Coalition pointed to the RDTI as its contribution to the future development of technologies that would deliver its Net Zero 2050 emission target. In fact, in July 2021, the Coalition relaunched a more valuable RDTI which has improved the innovation support framework.
- The return of the Labor Government that has maintained the RDTI in its present form as it looks towards the delivery of its big innovation support play, the $15 billion National Reconstruction Fund, in 2024.

So, the key 2023 RDTI takeaway is that the definitions of eligible R&D activities and expenditures remain unchanged since it was introduced in July 2011. This makes it a highly stable and well-understood program in the marketplace. Those saying that the program is too risky to claim in 2023 need to update themselves so their perception matches the reality; otherwise, they are letting their clients down.
Now, while we are talking RDTI 'stuff', the latest update from the ATO is a reminder to taxpayers to stay abreast of the program integrity rules:
Of particular concern is the fact that companies need to understand that they can only claim R&D expenditure incurred with their associates in the year they are actually paid unless the R&D entity makes an irrevocable election.
Overall, the update was a reminder to follow the law and was not an indication of any great tightening of the eligibility requirements.
Further to that, an RDTI Random Audit Program commenced on 1 November with little fanfare. Jointly conducted by the ATO and AusIndustry, it will involve 140 claimants (approximately 1% of all claimants) selected randomly from the Refundable and Non-Refundable cohorts across all industry sectors.

3 Past Frameworks

From R&D Tax Concessions to Tax Incentives 1985-2011

The evolution of the R&D Tax Concession into the R&D Tax Incentive represented a significant policy shift in Australia's approach to incentivising business R&D. A Summary of the major phases in the evolution is provided in Table 2.

Table 1: Summary of Major Phases of the R&D Tax Concession

Year	Policy event
1985	Concession introduced at a rate of 150 % of eligible R&D expenditure
1987	Syndicates of firms eligible to apply R&D buildings excluded from the scheme from 3 to 40 years and depreciation is changed
1993	The Industry Research and Development Board (now part of AusIndustry) was established to administer the R&D Tax Concession.
1994	The minimum expenditure was reduced from $50,000 to $20,000
1996	Rate of deduction reduced to 125 per cent
	Interest on debt and unconsumed feedstock no longer eligible
	Depreciation of pilot plants changed from 3 years to the asset's useful life

Year	Policy event
	Claims relating to 'core technology' capped at one-third of the total related claimable expenditure
2001	Incremental tax concession (175% premium deduction) introduced. The R&D Start Program was introduced, offering repayable loans to SMEs to support R&D activities.
2002	Extended access (tax offset) scheme for small business introduced
2007	The Productivity Commission released a report suggesting that the R&D Tax Concession was not sufficiently effective in increasing R&D spending and recommended a review (Productivity Commission, 2007).
2008-2009	The Australian Government conducted a Review of the National Innovation System (Venturous Australia Report) that recommended significant changes to the R&D Tax Concession (Cutler & Company, 2008)
2009	The Australian Government announced a new R&D Tax Incentive program to replace the R&D Tax Concession. The new program was designed to be more accessible and provide better targeted support for R&D activities.
2010	Legislation for the R&D Tax Incentive was passed, introducing a 45% refundable tax offset for eligible entities with a turnover of less than $20 million and a non-refundable 40% tax offset for all other eligible entities (Tax Laws Amendment (Research and Development) Bill 2010).
2011	The R&D Tax Incentive officially commenced, replacing the R&D Tax Concession. The transition marked a shift from a volume-based to an intensity-based incentive system.

Source: Based on "Tax Policy and R&D Investment by Australian Firms" (Thomson 2010, p. 261).

The R&D Tax Offset for SMEs (1996-2011)

The R&D Tax Offset for SMEs, operated as part of the R&D Tax Concession from 1996 to 2011. It allowed certain small and medium-sized firms to receive a refundable tax offset if their annual turnover was less than $5 million and their R&D expenditure was more than $20,000.

The R&D Syndication Scheme (1987-1996)

The R&D Syndication Scheme was introduced in 1987 as a supplement to the 150% Tax Concession. This scheme enabled companies without sufficient taxable income to benefit from R&D activities. Essentially, the R&D Syndication Scheme permitted companies to sell the tax benefits of R&D projects to other companies or syndicates with taxable income, effectively transferring the tax deductions (Macintosh, 1994).

The scheme was highly popular among start-ups and companies in tax loss positions, as it provided them immediate cash inflows for R&D activities, which could otherwise have been hard to finance. However, it was criticised for creating an environment where tax minimisation could become the objective rather than genuine R&D (Mercer, 1995).

The Australian government phased out the scheme in 1996 due to concerns about its susceptibility to abuse, including "sham" R&D projects initiated merely for tax avoidance (Lattimore, 1997). It was viewed as a policy that had evolved to serve the interests of tax planning rather than the initial objective of promoting genuine innovation and research (OECD, 1996).

The discontinuation of the R&D Syndication Scheme signalled a transition toward a more controlled and standardised approach to R&D incentives, culminating in the modern frameworks described earlier. However, the legacy of the syndication scheme continues to inform the policy discourse on balancing incentives with integrity in R&D tax policies.

The inclusion of the R&D Syndication Scheme adds a layer of complexity and nuance to the understanding of Australia's historical approach to R&D taxation policies.

Pooled Development Funds (1992-2007)

The Pooled Development Funds (PDF) program was an Australian investment scheme that provided capital to small and medium-sized enterprises (SMEs) by offering tax incentives to investors in the PDFs. Introduced in 1992, the program had objectives that included promoting investment, facilitating the growth and development of SMEs, and creating new employment opportunities (Commonwealth of Australia, 1998).

Under the PDF program, the focus was primarily on tax benefits for investors rather than the companies receiving the investment. Individual and corporate investors in a PDF were subject to a concessional tax

rate of 15% on income and capital gains derived from the PDF (Australian Government, 2013). This made the PDF an attractive investment vehicle.

However, the tax incentives were indirect for the companies receiving the investment. Companies could gain access to capital for expansion, research and development, and other business activities. Still, they would not receive a direct tax deduction merely by receiving PDF investment (Moran et al., 2001).

4 Capital gains tax concessions for R&D investments

In Australia, capital gains tax (CGT) concessions are not explicitly tailored to investments in Research and Development (R&D). Some elements of the taxation system indirectly favour R&D investments, although these are generally not in the form of CGT concessions per se.

The Australian tax system provides several CGT concessions for small business owners, which could apply to companies involved in R&D:

- CGT 15-Year Exemption: If a business asset has been held for at least 15 years, the business may be eligible for a full exemption from CGT upon its disposal (Australian Taxation Office, 2021)
- CGT 50% Active Asset Reduction: A 50% reduction in capital gains is available for active assets, which may include assets directly employed in R&D activities (Australian Taxation Office, 2021).
- CGT Small Business Retirement Exemption: Capital gains from the sale of a business asset may be exempted up to a lifetime limit of $A500,000 (Australian Taxation Office, 2021).

5 Taxation Concessions for Startup Companies

Taxation concessions for startup companies in Australia are part of a broader strategy to promote innovation, attract investment, and facilitate business development. These concessions come in various forms, including income tax offsets, capital gains tax exemptions, and other specific measures designed to ease the financial burden on emerging companies. Below is a detailed analysis of some of the significant tax concessions available to startups in Australia:

Early-Stage Investor Tax Incentives (ESICs)

Investors in qualifying early-stage innovation companies (ESICs) can access generous tax incentives. These include a 20% non-refundable tax offset on the amount invested, capped at $200,000 per investor per year, and a capital gains tax (CGT) exemption for shares held between one and ten years (Australian Taxation Office, 2023b).

Introduced in 2016-17, the annual tax expenditure is estimated to be $25m annually (The Treasury, 2023 p.113).

Venture Capital Tax Concessions

Venture Capital Limited Partnerships (VCLPs) and Early-Stage Venture Capital Limited Partnerships (ESVCLPs) are structures that offer tax incentives to encourage venture capital investments in startups. Gains and income for the fund from eligible investments are exempt from income and capital gains tax (Australian Taxation Office, 2023c)

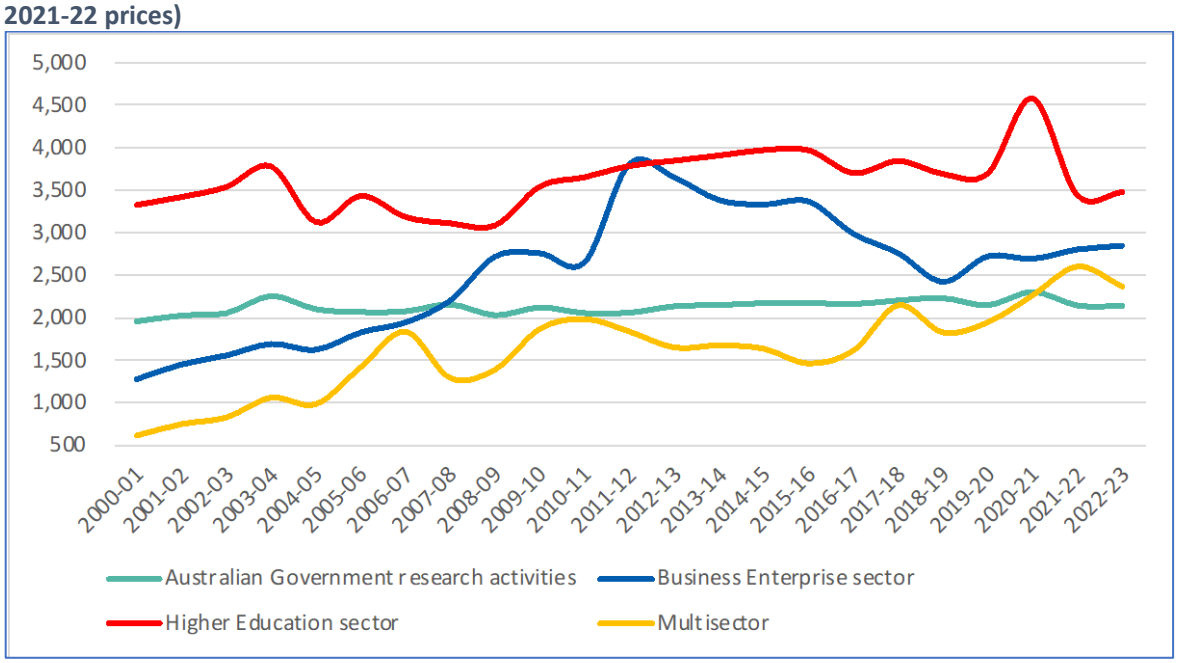
Instant Asset Write-Off

This provision allows businesses with a turnover of less than $500 million to immediately write off the cost of eligible assets, encouraging capital investment (Australian Taxation Office, 2023a)

6 The RDTI in the Australian System of Support for R&D

The RDTI sits within the broader context of Australian government investment in science, research, and innovation (SRI). These investments cover both direct expenditures from the budget and tax expenditures[3]. This is indicated in Figure 1 below.

Figure 1: Australian Government Expenditure on R&D $'000, 2000-01 to 2022-23 (inflation-adjusted to 2021-22 prices)



Source: Department of Industry Science and Resources (2023).

Figure 1 shows that over the period, expenditure on the RDTI has increased from $1.27 billion to $2.85 billion in real terms (dark blue line). By contrast, expenditure on higher education has increased by only $0.14 billion to $3.47 billion, and investment in government research (covering CSIRO and other public research organisations) has flatlined.

The most substantial increase has been in "multi-sector" investment, which covers research funded by the NHMRC and MRFF and investments in energy and the environment.

The RDTI now represents 26.3% of the total Australian Government support for R&D, increasing from 17.8% in 2000-01. Support for higher education has dropped from 45% to 33% (ochre line).

Given the very substantial investment in supporting business R&D, there is widespread policy interest in how the RDTI operates and what it supports—and doesn't.

7 Concluding comment: Research and development is *not* innovation

There is a common misconception, particularly among scientists, to conflate successful R&D (discoveries and inventions) with innovation. However, breakthroughs in science and technology are not innovations in themselves. The scientific community has traditionally focused on R&D as the core of progress and development, beginning with the highly influential report to President Roosevelt by the President of MIT published as *Science, the Endless Frontier* (Bush, 1945).

The broader concept of innovation, which includes market and organisational aspects, is a relatively recent focus in business, economic and policy studies. However, the concept was first introduced into management studies by Peter Drucker in *The Practice of Management* in 1954 (Drucker, 1954) and addressed in some detail by Tom Burns and G.M. Stalker in *The Management of Innovation* (Burns &

[3] A tax expenditure arises where the tax treatment of a class of taxpayer or an activity differs from the standard tax treatment (tax benchmark) that would otherwise apply. Tax expenditures can include tax exemptions, some deductions, rebates and offsets, concessional or higher tax rates applying to a specific class of taxpayers, and deferrals of tax liability (The Treasury, 2023).

Stalker, 1961). Early Australian contributions are reflected in *The Theory of the Growth of the Firm* (Penrose, 1959) and *Managing the Innovating Enterprise* (Carnegie et al., 1993).

Nonetheless, the terms R&D and innovation are often used interchangeably, creating some confusion and inconsistency in the language of innovation.

The Frascati criteria define R&D—but not innovation. Quite simply, innovation amounts to "the successful exploitation of new ideas" (Dodgson et al., 2005, p. 26) or knowledge successfully applied (Drucker, 1986).

Innovation is both an *outcome* (a new product, process, or service) and a *process* of organisational and managerial combinations and decisions. By definition, an innovation is successful, but innovation processes can fail to support the successful exploitation of new ideas (Dodgson et al., 2005). Innovation links science and technology to markets (Ganguly, 1999).

There may be an expectation that R&D will be reflected in innovation, but this is not predetermined: *innovation processes can and do fail.* Developing, articulating and improving innovation processes are reflected in an extensive and growing academic and practice-based management and organisational literature.

Innovation is more thoroughly defined in the *Oslo Manual,* published by the OECD and Eurostat (OECD & Eurostat, 2018), which provides guidelines for collecting and interpreting innovation data. According to the Oslo Manual, innovation consists of new products, business processes, and organisational methods in business practices, workplace organisation, or external relations" (OECD & Eurostat, 2018, p. 20). Specifically, the Oslo definition extends the definitions as follows—

- Product innovation: A good or service that is new or significantly improved.
- Process innovation: A new or significantly improved production or delivery method.
- Marketing innovation: A new marketing method involving significant changes in product design or packaging, product placement, product promotion, or pricing.
- Organisational innovation: A new organisational method in business practices, workplace organisation, or external relations.

Thus, while the RDTI supports generating new knowledge "including new knowledge in the form of new or improved materials, products, devices, processes or services", it does not go further in supporting outcomes that could be regarded as innovative—that is, adopted, applied and used by customers, governments or businesses along a value chain.

Getting to sustained adoption, application, and use may require much larger investments than an R&D commitment. Support for these investments moves to another science, research and innovation policy area.

While R&D is a vital component of the innovation process, innovation itself is broader and encompasses implementing and commercialising the R&D outcomes. Understanding these nuances is crucial for scientists, businesses, and policymakers as they navigate technological development and market dynamics.

Recent initiatives such as the *Research Translation and Commercialisation Action* Agenda (Department of Education, 2022), the *National Reconstruction Fund* (Department of Industry, Science and Resources, 2022), and the *Industry Growth Program,* announced in May (Business.gov.au, 2023) are designed to support innovation by taking discoveries and inventions into the prospect of innovations. However, the investments are small in comparison to the RDTI.

Businesses acquire knowledge for innovation from multiple sources—not just internal R&D. One of the more important sources are customers and users (Von Hippel, 1988, 2005) and "open innovation", where companies deliberately let ideas and innovation flow across their organisational boundaries (Chesbrough, 2003).

The Frascati definition of R&D is reflected in the Business Longitudinal Analysis Data Environment (BLADE), a data integration platform maintained by the Australian Bureau of Statistics that combines business tax data from the Australian Taxation Office with data from ABS business surveys including the

Business Characteristics Survey (BCS), Management Capabilities Module (MCM), Economic Activity Survey (EAS), and Business Expenditure on Research and Development (BERD) (ABS, 2022a)

Innovation data is sourced from surveys asking businesses about introducing new or significantly improved goods, services, processes, or methods. This includes the ABS Business Characteristics Survey (ABS, 2023), which generates the report *Innovation in Australian Business* (ABS, 2022b). The survey adopts definitions and guidelines from the Oslo Manual.

The ABS would strive to separate R&D data from innovation data. But, in practice, some overlap can occur in how businesses report their activities. For instance, a business might consider its R&D activities as part of its broader innovation process, especially in surveys or self-reporting settings. This can sometimes lead to a blending of the concepts in discussion or interpretation, even if the underlying data points are distinct.

Arguments that R&D has created a specific innovative outcome are conceptually very difficult to sustain. As discussed, innovation reflects multiple management and organisational processes, of which R&D may be only one dimension. However, R&D creates a knowledge base and national knowledge asset that can be accessed in these complex and dynamic innovation processes (Gibbons et al., 2012).

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