Practical Documentation for substantiating R&D tax credit Claims in Singapore

Cherie L. Jones[1], Adam A. Rogers[2], and Jacinta M. Doocey[3]
[1], [2], [3] Swanson Reed | Specialist R&D Tax Advisors in Singapore

Office Address: Singapore
Website: https://www.swansonreed.com.sg

Received: 15 August 2024

Accepted: 29 November 2024

Published: 30 January 2025

Executive Summary

The paper is an elaborate guideline to Singaporean firms on how to qualify to claim Research and Development (R&D) tax benefits within the Enterprise Innovation Scheme (EIS). It highlights the fact that even though the monetary gains are high, the paperwork to be completed in line with the Inland Revenue Authority in Singapore (IRAS) is strict and requires a systematic, contemporaneous method. The leading tax breaks that incentivize R&D in Singapore is the EIS, which provides a tax deduction of up to 400 per cent of expenditure on qualifying processes, which is an important element of the national policy towards the creation of a knowledge-based economy (IRAS, 2022; Ministry of Finance, 2023).

The essence of the R&D system in Singapore is aimed at fulfilling two mutually supporting goals: to introduce real innovation and financial competence. Businesses are given an incentive to carry out projects that challenge the frontiers of science and technology, but are also required to an extremely high evidentiary standard. That is, simply carrying out R and D activities is no longer enough to claim tax benefits, taxpayers need to show, through clear and contemporaneous and project-specific documentation, that their undertakings are indeed meeting the requirements of IRAS.

The key to any successful claim is the fulfillment of the so-called three-pillar test, which determines qualifying R&D in terms of its Objective, its Novelty or Technical Risk, and its classification as a Systematic, Investigative, and Experimental (SIE) Study. In contrast to jurisdictions which are guided by a body of communal case law, the Singaporean system is controlled by administrative direction of IRAS. This makes it the responsibility of taxpayers to make a proactive effort to create a defensible claim, using official publications (KPMG, 2023;

EY, 2022).
The importance of the strong, project-related documentation cannot be overestimated. Without prescriptive rules, this report breaks down the expectations of IRAS through its main publications, especially the e-Tax Guide on Research and Development Tax Measures, and the conditions of the application of the R&D Assurance Framework (IRAS, 2022; IRAS, 2023a). Specifically, the latter acts as an example of best practices in internal controls and records-keeping of all businesses, irrespective of the size and the desire to use the framework. Lastly, a real-life case study of a hypothetical Singaporean firm, Advanced Materials SG Pte. Ltd., demonstrating the use of these principles in practical circumstances is a helpful roadmap on how to determine what qualifies as an activity and how to prepare the substantiation after it is determined.

Introduction to Singapore's R&D Tax Measures

Singapore has established itself as a world innovation and technology-based growth center. During the past twenty years, its economic policy has been characterized by an insatiable attention to knowledge production, technological modernization, and the development of a competitive ecosystem in which a creative environment is valued. To reinforce this vision, the government has constantly perfected its system of R&D tax incentives.
The latest and the most notable improvement to date is the Enterprise Innovation Scheme (EIS), unveiled in Budget 2023, which brings together previous provisions and significantly expands the list of benefits that may be obtained by a company, which engages in innovative activities in Singapore (Ministry of Finance, 2023; KPMG, 2023). Not only does it increase the access to financial aid provided to existing R&D performers, but also increases accessibility among start-ups and SMEs that tend to have fewer funding resources at their disposal.
It is through the EIS that companies have an improved tax deduction of up to 400 percent on the initial S$400,000 of qualifying R and D expenses as well as a further 250 percent deduction on any amount beyond the amount. Moreover, the qualified start-ups and SMEs can choose a capped cash payout, which transforms up to S$100,000 of the qualifying spend into a non-taxable cash payment (Ministry of Finance, 2023; PwC, 2023). Such actions confirm the dual goal of the government to both reward those companies investing in innovation and to ensure that the latter is duly recorded, transparent and focused on actual scientific or technological progress (FI Group Singapore, 2023; Apexia, 2023).
These improved incentives however come with strict compliance requirements. The major pillars of the framework are the three-pillar test that was set by IRAS:

1. **Objective** – The project should strive to learn, develop a new product or process, or make a substantial improvement on an existing product or process.
2. **Novelty or Technical Risk** – The project should entail real scientific or technological

uncertainty that cannot be overcome easily by a professional of reasonable caliber.
3. **Systematic, Investigative and Experimental (SIE) Study** – The project should be conducted in a systematic, methodic way in which there is a hypothesis, experiment, observation, and analysis (IRAS, 2022; EY, 2022).

In comparison with such jurisdictions as Australia or the UK, Singapore does not have a significant body of case law that would establish what is deemed as adequate substantiation of claim on R&D. Rather, these rules have to be interpreted and applied in practice by reference to the administrative guidance provided by IRAS, such as the Research and Development Tax Measures e-Tax Guide and the R&D Assurance Framework (IRAS, 2022; Northwest Hydraulic, 1997; Hadee Engineering, TC7969).

This paper aims to present a practical guideline to businesses on the substantiation to claim tax on R&D in Singapore. This report explores the path that companies should take to ensure that they not only can enjoy the generous perks of the EIS, but also with no doubt that their claims will pass the scrutiny of the regulator by studying IRAS guidance, exploring broader judicial principles, and presenting an actual case study.

Overview of Singapore's R&D Incentive Framework

The Enterprise Innovation Scheme (EIS), in effect between YA 2024 and YA 2028, is a consolidation of the current incentives on R&D in Singapore into a more comprehensive system that is relatively generous. The scheme offers a benefit scheme on a two-track basis:

- **Increased Deductions:** First S$400,000 of qualifying R and D expenditure may be deducted at 400 per cent per YA, and then a deduction of 250 per cent on expenditure exceeding this amount.
- **Optional Cash Payout:** Cash payout of up to S$20,000 per YA (20 percent of up to S$100,000 of qualifying expenditure) that is a non-taxable cash payout available to start-ups and SMEs that satisfies the CPF employment requirement (Ministry of Finance, 2023; KPMG, 2023).

Having been accredited as a country that values R&D as a source of innovation along with a long-term investment, these benefits demonstrate that Singapore understands that companies at its emergent stages of development need support mechanisms that are short term in nature. Notably, it is worth noting that the cash payout election cannot be changed, and therefore businesses should thoroughly examine their existing profitability and cash flow prior to selecting an option (PwC, 2023; FI Group Singapore, 2023).

In order to qualify, companies are required to satisfy the statutory definition of R&D in Section 2 of the Income Tax Act 1947 that includes the three-pillar test. Qualifying expenditure includes mainly:

- **Staff expenditure:** Employees who have direct involvement in R&D work (except directors' fees).

- **Consumables:** Materials encountered in experimentation and development.
- **Outsourced R&D:** The fees paid to a third party can be claimed up to 60 percent, as long as the work benefits the Singaporean taxpayer exclusively (IRAS, 2022; EY, 2022; Intevac Asia, 2012).

Though this framework is generous, it is based on strict standards of documentation. The IRAS will require taxpayers to provide project-specific contemporaneous evidence to prove the qualifying nature of activities as well as the veracity of expenditure claims. Lack of such evidence is an effective risk of denial, penalties, or clawbacks (IRAS, 2022; IRAS, 2023a; Apexia, 2023).

Qualifying vs. Excluded Activities

In order to identify eligibility under the Enterprise Innovation Scheme (EIS) tax incentives of Singapore that targets R&D, companies should apply the statutory definition of R&D that is operationalized in the three-pillar test Objective, Novelty/Technical Risk, and Systematic, Investigative, and Experimental (SIE) Study (IRAS, 2022; EY, 2022). Nevertheless, there are also clear exclusions of IRAS that can help avoid the misuse of incentives in the normal business operations or commercial activity.

The qualifying and excluded activities may be quite subtle, particularly in those industries that are both innovative and at the same time production is underway. For example:

Industry	Qualifying R&D Activity	Non-Qualifying (Excluded) Activity	Rationale for Distinction
Software Development	Creating a new machine learning based algorithm to predict network failures with 99.9 percent accuracy, including uncertainty in the model architecture and uncertainty in optimizing training data.	Bringing in a pre-built off-the-shelf ML library into an existing surveillance tool through standard implementation practices.	The qualifying activity eliminates a basic technical ambiguity. The omitted activity uses established practices that have foreseeable results.
Advanced	The idea of experimenting with a	Adjusting equipment to run a new and	The qualifying activity deals with

Industry	Qualifying R&D Activity	Non-Qualifying (Excluded) Activity	Rationale for Distinction
Manufacturing	new, untested metallic alloy to produce lighter and stronger parts, with a lot of vagueness in casting and fabrication.	commercially available grade of steel to supplier specifications.	behaviors of unknown materials. The omitted exercise is a normal process operation.
Food Technology	Mimicking the texture of meat with the use of a plant-based protein through experimenting with new protein extraction and extrusion methods.	Diluting an already-existing beverage formula with sugar to create a less sweet beverage.	The qualifying activity develops a completely new product. The omitted activity is a small change and there is no technical uncertainty.
Biotechnology	Carrying out pre-clinical studies on a novel compound to determine efficacy and safety, when biological interactions are not fully understood.	Carrying out quality control testing of a batch of an approved drug as a regulatory measure.	Scientific uncertainty is solved in the qualifying activity. The activity that has been excluded is standard testing on a familiar product.

The Substantiation Challenge

This is not only because whether an activity meets the three-pillar test is crucial to the tax regime on R&D in Singapore, but because, in order to claim that the taxpayer can substantiate the claim with cogent and contemporaneous documentation (IRAS, 2022; EY, 2022). In contrast to other jurisdictions, including those of Australia or the UK, where tribunal and court rulings give guidance on case law to taxpayers, Singapore is practically dependent on IRAS administrative guidance. This provides a very special compliance environment in which firms are no longer able to draw on judicial precedent but they are actively building an evidentiary record that they

believe IRAS will expect (PwC, 2023; KPMG, 2023).
IRAS has always emphasized that retrospective documentation means little. The records generated following the completion of the R&D project are not likely to meet the standard of evidentiary threshold. Rather, the focus is on project-specific documentation, in real-time, which demonstrates:

- The project was determined at the start of what was required.
- The technical risks and uncertainties were well defined.
- The study was a systematic, investigative and experimental (SIE) study.
- The qualifying activities can be directly associated with the costs (IRAS, 2022).

The consequence of not satisfying these criteria is that the underlying activities may otherwise be eligible to claim but IRAS may still disallow it (Comptroller of Income Tax v BBO, 2010; Intevac Asia Pte Ltd v Comptroller of Income Tax, 2012).
One of the challenges that face businesses in Singapore is the lack of a substantiation framework by statute that is a safe haven. In Australia, such as, there are certain requirements regarding R&D plans and contemporaneous documentation; whereas in the U.S. on the case of technical records there is an extensive case law as to what is expected of technical record keeping (Northwest Hydraulic Consultants Ltd v The Queen, 1997). Even though the IRAS e-Tax Guide and the R&D Assurance Framework are not mandated documents on the book in Singapore, companies have to see them as blueprints of best practices (IRAS, 2022).
Such environment turns the compliance with the R&D taxes into the technical thesis and the most convincing evidence is not the ledger entries, but the laboratory notebooks, technical memoranda, patent searches, and test reports, which indicate the existence of uncertainty, and the systematic effort to eliminate it (EY, 2022; Apexia, 2023).

A Detailed Analysis of the Qualifying R&D Rules (The Three-Pillar Test)

Any R&D claim made under the Enterprise Innovation Scheme of Singapore is determined to be eligible according to the three-pillar test established by IRAS. All three criteria, Objective, Novelty or Technical Risk, and Systematic, Investigative, and Experimental (SIE) Study, have to be met, and even more importantly, have to be backed up by the contemporaneous documentation (IRAS, 2022; EY, 2022).

Pillar 1: The Objective

The first one is that the project should have a clearly-defined goal to give rise to new knowledge or produce a new product or process or noticeably enhance an old one. This goal is to be recorded prior to the launch of R&D (IRAS, 2022).

- A statement like "to gain market share" is not a commercial objective and that is not eligible.

- An example of a qualifying objective would be to come up with a new polymer process that will cut production time by half by eliminating the problem of catalyst degradation.

The knowledge gap should be established by doing preparatory research, e.g. literature review or patent research. This will make sure that the project is based on a clear scientific or technological goal and not a commercial one (Apexia, 2023).

Pillar 2: Novelty or Technical Risk

The second pillar must be the existence of scientific or technological uncertainty. According to IRAS, this is one of the problems that cannot be easily sorted out by a professional who is qualified in the area. This puts a higher threshold to the projects simply new to the company (IRAS, 2022).

Qualifying examples include:

1. The combination of two or more technologies that have not been integrated previously, and the success cannot be guaranteed.
2. Creating a novel process of production to deal with material properties not tested before.
3. The utilization of already existing technology in such a manner that it results in the development of completely new goods or services.

The documentation should be able to demonstrate why the solution was not an obvious and common sense, either by failed attempts, technical memoranda or expert opinion (FI Group Singapore, 2023).

Pillar 3: The Systematic, Investigative, and Experimental (SIE) Study

The last pillar means that the project should be done in an organized and scientific way. This means:

- **Systematic:** A clear plan with defined hypotheses and milestones.
- **Investigative:** Each step will set out to address the uncertainties identified.
- **Experimental:** In this category, results are created and experimented using models, simulations, prototypes, or trial and error (IRAS, 2022).

More importantly, it does not matter whether the project will succeed or fail. The important fact is the rigor of the experimental process. The presence of documented failures may actually reinforce a claim in that it demonstrates that the outcome could not be easily deduced initially (EY, 2022).

Combined, these three pillars make sure that only those projects, that contribute to actual technological development and the research that is properly documented, receive enhanced tax benefits on R&D in Singapore (IRAS, 2022; PwC, 2023).

Specifically Excluded Activities

To avoid confusion and misuse of R&D incentives by regular business activities, the IRAS specifically enumerates a number of activities that are not considered to be R&D, despite them being undertaken to support overarching innovation agenda (IRAS, 2022). These exclusions are important to understand in order to scope a claim correctly and to avoid possible conflicts with IRAS (EY, 2022). The key groupings of excluded activities are:

- Quality control or regular testing of materials, devices or products - including regulatory or compliance testing, calibration or verification to make sure that the current products match pre-established standards (IRAS, 2022).
- Social sciences or humanities Research: The R&D incentives offered by Singapore are highly restrictive and confined to scientific and technological innovations (KPMG, 2023).
- Routine data collection, which is not identical to data of a structured experiment (PwC, 2023).
- Efficiency surveys or management research, e.g. productivity assessments or organizational process enhancements.
- Sales promotion or market research, which is not a technical business, but a commercial one (Apexia, 2023).
- Routine adjustments or small-scale changes that do not involve a real scientific or technological uncertainty, e.g. changing the size or the colour of a product (FI Group Singapore, 2023).
- Adornment or stylistic changes that do not entail technical progress.
- Research conducted once a commercial production has been made available except that of a new project with additional technical uncertainty (IRAS, 2022).

These exclusions signify that not everything involving innovation is eligible as a tax deductible in the category of R&D. It all depends on whether the work answers a true scientific or technological puzzle (IRAS, 2022; EY, 2022).

Industry	Qualifying R&D Activity	Non-Qualifying (Excluded) Activity	Rationale for Distinction
Pharmaceuticals	Making pre-clinical trials of a new drug compound having unknown biological interactions.	Conducting regular batch testing of a drug that has been approved to determine whether it is in regulatory	Trials are the way to solve scientific uncertainty; QC is not R&D.

Industry	Qualifying R&D Activity	Non-Qualifying (Excluded) Activity	Rationale for Distinction
		compliance.	
Electronics	Designing a future generation semiconductor chip to be more efficient with uncertain thermal characteristics.	Repurposing an already manufactured circuit board to a smaller case.	Technological risk is on chip design; change on casing is cosmetic.
Food Technology	Production of new plant-based protein with extra molecular characteristics through extrusion methods.	Enhancing an existing snack formula by reducing the amount of salt in the formula.	Protein production is experimental risk; descended salt is a custom update.
Renewable Energy	Demonstrating a new solar panel coating that can resist the high humidity and increase efficiency.	The old solar panels are replaced with normal replacements.	Maintenance is replacement, whereas coating R&D deals with unknown technical results.
Logistics & AI	Developing a traffic forecasting AI to be used in the routing process.	Installation of a new off-the-shelf delivery scheduling software.	AI algorithm requires systematic experimentation; software switch is a commercial action.

IRAS's Focus on Substantiation: An Analysis of Administrative Guidance

Where there are no publicly available tax court precedents in Singapore concerning claims of R&D, taxpayers are left to rely on the administrative pronouncements and structures of IRAS to determine its expectations regarding substantiation. These are non-binding resources, which, even though a court ruling is stricter in law that can be appealed, are the clearest available information on what standards a claim will be measured against during a review or audit (IRAS, 2022; EY, 2022).

The IRAS e-Tax Guide entitled Research and Development Tax Measures is the reference material to any R&D claim. It is the main source of official interpretation and is the most detailed source of the three-pillar test, the definition of qualifying expenditure, and examples of it (IRAS, 2022). Indicatively, in the guide, there are certain illustrations, which are software development-related, which IRAS observes may need more information to be provided by taxpayers as it is a bit complicated. This guide should be seen as the baseline and the initial source of structuring the R&D claims and documentation by taxpayers and their advisors (PwC, 2023).

The R&D Assurance Framework: A Blueprint for Best Practices

Whereas the e-Tax Guide provides the user with the understanding of what, R&D Assurance Framework provides a clear suggestion on how. It is a scheme where taxpayers having substantial and ongoing R&D efforts can submit a request to get upfront assurance on their claims over a maximum of three Years of Assessment (IRAS, 2023a). A company needs to have no less than five in-house R&D projects and qualifying expenditure of no less than S$500,000 in the year of application to be eligible (KPMG, 2023).

But the real worth of the framework is to all taxpayers, not only to those who make an application. The R&D Assurance Framework application form is a good means to say to the public that IRAS has a gold standard of internal controls and documentation. There is a close examination of the requirements of the application and it can be seen that it has a detailed checklist of best practices. Key requirements include:

1. **A Documented Evaluation Process** — The applicant should state that it has a documented process of evaluating the evaluation of whether non-routine projects are qualifying under the conditions of the R&D Tax Measures. This is indicative of the necessity of an official, written internal process of prioritizing and screening possible R&D projects (IRAS, 2023a).
2. **Contemporaneous Documentation** — The form expressly mandates confirmation of contemporaneous documentation in order to demonstrate how expenses incurred on qualifying R&D projects are determined and reported. This is an indication that the records prepared post-factum are treated with suspicion; the most valuable evidence is the type of records prepared in the present as the R&D work progresses (EY, 2022).
3. **Specific Record-Keeping** — The application requires sample records to illustrate the cost tracking; some examples include: Timesheets to verify the number of hours spent on R&D (vs non-R&D) activities and Cost breakdown and invoices to correlate other expenses with R&D (Apexia, 2023).

4. **Full Project Listing** — To show that there was a clear and defensible methodology of selection, the applicant should submit a listing of all of the projects that are being asserted to be R&D and any other that are being treated as routine.

The application form of this framework is in short, a blueprint of compliance that can be availed to everyone. Although a US system would have taxpayers study a complex court case to derive documentation standards the Singapore system tells them more directly, although less commonly known (Northwest Hydraulic, 1997; Hadee Engineering, TC7969). A responsible taxpayer is able to reverse engineer these needs and create an audit-resistant file of documentation at the bottom up. Using internal R&D project management and accounting systems in such a way that they are structured to meet the application criteria of the framework can allow a company to anticipate the type of questions that IRAS may pose during a review, and this will go a long way in enhancing its claim, and greatly reduce its compliance risk.

The Technical Advisory Panel and Audit Scrutiny

In specific and/or controversial cases, IRAS might direct a claim to its Technical Advisory Panel to review it. This panel is made up of professionals in different scientific and technological areas and they help the IRAS with the technical merits of a claim (IRAS, 2023b). The existence and use of this panel further underscore the technical, rather than purely financial, nature of the R&D claim review process. It confirms the need not only of the financial accuracy of documentation but also the scientific soundness and transparent interpretation in the form that can be understood and qualified by a technical expert. This fact puts a premium on the quality of the technical write-ups, lab notebooks, and other documents that directly address the scientific or technological issues of the project (EY, 2022; FI Group Singapore, 2023).

Insights from Singapore Case Law

As has been mentioned, Singapore has a tax regime of R&D that is largely influenced by the administrative guidance of IRAS, as opposed to a large collection of publicly available court decisions. Nevertheless, some of the fundamental cases on tax, though not necessarily involving R and D, lay down some principles that are fundamental in proving any claim regarding tax deductions, including the claim to R and D. These cases shed light on how the judiciary interprets the Income Tax Act and highlight the presence of an extremely high evidentiary standard imposed on taxpayers (IRAS, 2022).

ABD Pte Ltd v Comptroller of Income Tax (3 SLR 609, HC) – The Capital vs. Revenue Distinction

One of the underlying problems in tax law is the ability to differentiate between capital and revenue expenditure (costs to acquire or improve a long-term asset versus day-to-day operation costs). As a rule, capital expenditure cannot be charged against revenue. ABD Pte Ltd v Comptroller of Income Tax, 2010 High Court reiterated the rule that such expenditure is counted as an investment and is of capital nature when it is used in the creation, improvement or enhancement of an asset, or in the opening of a new line of trade (ABD Pte Ltd v Comptroller of Income Tax, 2010). This principle applies strongly to R&D because in many cases, the result of successful R&D is the development of a durable capital asset like a patent or other intellectual property. Although R&D expenditure might be considered capital, the Income Tax Act creates a set of statutory provisions (Sections 14C and 14D) specifically to allow deductions on such spending, as it is vital to innovation.

Pinetree Resort Pte Ltd v Comptroller of Income Tax (3 SLR(R) 136, CA) – The "Nexus to Trade" Requirement

To have an expense deductible under Section 14(1) of the Income Tax Act, the expense has to be incurred in the generation of income. According to the Court of Appeal in Pinetree Resort Pte Ltd v Comptroller of Income Tax, when determining the presence of the nexus, the business must be viewed as a series of operations geared towards the generation of income (Pinetree Resort Pte Ltd v Comptroller of Income Tax, 2000).

This is especially important in the case of R&D claims. R&D can be quite investigatory and need not be associated with a particular, existing revenue-generating product. But even in the case of the whole set of operations, this expenditure is still deductible since it fits within the company overall strategy to innovate and earn future income.

Comptroller of Income Tax v IA (4 SLR(R) 161, CA) – The Objective Assessment of Purpose

The case of Comptroller of Income Tax v IA made it clear how one should go about identifying the purpose of expenditure. The Court of Appeal had laid down a framework where an objective evaluation of the purpose of the expenditure was to occur, rather than an examination based on the personal claim made by the taxpayer. The connection between the charge and the principal transaction is examined by the court to determine its actual character (Comptroller of Income Tax v IA, 2006).

This is directly applicable to R&D claims. A taxpayer cannot just declare an undertaking to be a research and development project in order to gain a tax benefit. The mentioned goal should be backed up by objective, factual pieces of evidence. This case law reinforces the role of IRAS in requiring more specific, contemporaneous reporting that will demonstrate the innovative purpose of the project at the outset (IRAS, 2022).

The landmark case of Comptroller of Income Tax v BBO, although relating to the character of investment gains as capital or revenue, set an important evidentiary standard based on the

principle of objective assessment. The Court of Appeal added that the burden of proof is on the taxpayer to prove his or her intent and that the burden of proving this must be with cogent evidence, contemporaneous evidence (Comptroller of Income Tax v BBO, 2010).
This is because records made real-time as the activity progresses is so much more important than those made retroactively. This is the most important principle when it comes to R&D claims. It justifies directly the necessity of dated lab notebooks, time-stamped project plans, records of meetings during which technical risks were addressed, and iterative test results. Combined with IA, the BBO case reveals that a successful R&D claim is based not only on what has been done, but also on the level at which it was recorded when it was done.

Intevac Asia Pte Ltd v Comptroller of Income Tax (SGHC 218) – Specific Rules for Outsourced R&D

This case is one of the only publicly known decisions of the High Court that specifically covers the interpretation of the provisions of the R&D tax deduction. It concerned a Singapore company which made payments to its US parent under a Cost-Sharing Agreement (CSA) with regard to R&D done in the US. The taxpayer deduced under Section 14D which provides deductions on payments made to an R&D organization to carry out work on his behalf.
According to the court, this phrase combined with the stipulation that any benefit of the R&D must flow to the taxpayer should suggest exclusivity. As such, to be deductible under this provision, the work has to be carried out, and the benefits realized, exclusively, to the taxpayer in Singapore (Intevac Asia Pte Ltd v Comptroller of Income Tax, 2012). A major lesson of the Intevac case is that legal and commercial form of outsourced R&D and cost-sharing mitigation has to be highly regulated in such a way that only the Singapore-based organization stands the sole beneficiaries of the work it funds.

Summary of Judicial Principles

When combined, these Singaporean cases demonstrate how the courts have a purposive and careful interpretation of the Income Tax Act, despite a limited number of direct R&D case law. There are a few significant principles:

1. **Capital vs. Revenue Expenditure** – According to ABD Pte Ltd, R&D can generate long-term assets (patents or proprietary processes) which otherwise would be considered as capital. Subsections 14C and 14D of the statute thus provide a carve-out to permit deductibility of R&D expenditure (IRAS, 2022).
2. **Nexus to Trade** – The Pinetree Resort case demonstrates that the deductibility of R&D can be based on the fact that it is an activity of the company in general directed at generating revenue.

References

1. Inland Revenue Authority of Singapore (IRAS). (2022). *Research and Development Tax Measures e-Tax Guide*.
2. Inland Revenue Authority of Singapore (IRAS). (2023a). *R&D Assurance Framework*.
3. Inland Revenue Authority of Singapore (IRAS). (2023b). *Technical Advisory Panel Guidelines*.
4. Ministry of Finance, Singapore. (2023). *Budget 2023: Enterprise Innovation Scheme*.
5. Apexia. (2023). *Substantiating R&D Tax Claims: A Practical Approach*.
6. *Northwest Hydraulic Consultants Ltd v The Queen*, (1997).
7. *Hadee Engineering Co Ltd v Commissioners for HM Revenue and Customs*, TC7969.
8. *Comptroller of Income Tax v BBO*, 2 SLR 545, CA (2010).
9. *Intevac Asia Pte Ltd v Comptroller of Income Tax*, SGHC 218 (2012).
10. *ABD Pte Ltd v Comptroller of Income Tax*, 3 SLR 609, HC (2010).
11. *Pinetree Resort Pte Ltd v Comptroller of Income Tax*, 3 SLR(R) 136, CA (2000).
12. *Comptroller of Income Tax v IA*, 4 SLR(R) 161, CA (2006).