

# Research and Development (R&D) Tax Incentives in Singapore

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**Abstract**—Economic theory commonly associates accumulation of research and development with the economic growth of a country. As such, we continue to see countries around the world tailoring their economic policies to compete for a slice of the global R&D.

The R&D tax incentives is one of the government's mechanisms to support companies to achieve greater competitiveness drive innovation.

Around Asia Pacific there are no further significant changes except for Singapore which in 2012 updated its R&D definition to remove the exclusion on software development activities which are not intended for sale to unrelated parties.

This effectively opens door and provides clarity to other industries besides the software companies in respect eligibility for the R&D tax incentive.

This study aims to explain R&D tax incentives in Singapore and its effects.

**Keywords**— Tax Incentives, R&D, Tax Deduction.

## I. INTRODUCTION

THE R&D measures are targeted at encouraging businesses to build up R&D capabilities in Singapore. A taxpayer who undertakes qualifying R&D activities may benefit from the R&D tax measures. The taxpayer need not apply to any government agency for these R&D tax measures (This excludes R&D projects approved under section 14E of the Income Tax Act) The taxpayer must self-assess if his R&D activities are qualifying R&D activities for tax purpose and if so, make the relevant claims in the annual tax return.

In Singapore general corporate tax rate is %17 with partial tax exemption granted for the first SGD 300.000 (Singapore Dollar currency of Singapore) of otherwise taxable income.

Basically R&D tax incentives are taken place in four different section in Singapore Tax Act. For understanding R&D tax incentives first of all definition of R&D and eligible expenditure, which expenses are eligible, definition of normal and mixed R&D projects should be known.

## II. DEFINATION OF R&D, ELIGIBLE EXPENSES AND ELIGIBLE INDUSTRIES BASED ON SINGAPORE TAX ACT

R&D is defined as any systematic, investigative and experimental study that involves novelty or technical risk carried out in the field of science or technology with the object of acquiring new knowledge or using the results of the study for the production or improvement of materials, devices, products, produce, or processes (with specified exclusions). Activities that directly support core R&D activities may also qualify. An R&D project must fall within the definition of R&D under Section 2 of the Income Tax Act. The three following requirements must be fulfilled:

### 1. The objective is to:

- Acquire new knowledge
- Create new products or processes; or
- Improve existing products or processes

2. It is a systematic, investigate and experimental study in the field of science or technology; and

### 3. It involves novelty or technical risk

R&D does not include:

- Quality control or routine testing of materials, devices or products
- Research in the social sciences or humanities,
- Routine data collection
- Efficiency surveys or management studies
- Market research or sales promotion
- Routine modifications or changes to materials, devices, products, processes or production methods or
- Cosmetic modifications or stylist changes to materials, devices, products, processes or production methods.

Expenditure eligible for the main R&D tax allowance include staff costs, consumables and contracted R&D expenditure, net of Government grants or subsidies. From the year of assessment 2012, expenditure incurred on R&D cost sharing agreements (CSA) may qualify as expenditure on R&D and enjoy enhanced tax deduction. Where the R&D work is contracted to an R&D organization or under a CSA and a breakdown of the expenditure is not available, the eligible R&D expenditure is deemed to be 60% of fees payable to the R&D organization or under a CSA.

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Eligible expenses include; wages and salaries, materials, and utilities incurred directly for R&D activity. Capital expenditure on plant, machinery, land, or buildings, or on alterations, additions, or extensions to buildings, or in the acquisition of rights arising in or arising out of R&D are specifically excluded. For the tax years from 2009 to 2025, the R&D expenditure need not be related to the entity's existing trade or business to qualify for the tax deduction, unless the R&D is performed outside Singapore.

Eligible industries include; any business carrying on qualifying R&D projects in Singapore is eligible for the enhanced tax deduction. No industry sectors are specifically excluded. However, research in the social sciences or the humanities sciences cannot be claimed unless they are activities which support the qualifying R&D project. The exclusion on software development activities which are not intended for sale to unrelated parties has been removed with effect from the year of assessment 2012.

A taxpayer may undertake R&D work directly, outsource it to an R&D service provider or participate in an R&D cost sharing agreement. Such R&D work may be carried out wholly in Singapore or wholly outside Singapore (normal R&D projects). It also be carried out partly in Singapore and partly outside Singapore (mixed R&D projects).

### III. R&D TAX INCENTIVES IN SINGAPORE TAX ACT

First part is tax code Section 14D, %100 tax base deduction. It provides an exception to the general rule that new product and process development costs are capital in nature and hence not tax deductible by allowing current deductions for R&D expenditure incurred by a taxpayer in the conduct of its trade or business (including payments made to R&D organizations).

Second part for incentives is Section 14DA(1); includes %50 additional deduction. Qualifying expenditure incurred with respect to R&D conducted in Singapore during tax years from 2009 to 2025 may, in addition to qualifying for the Section 14D base deduction, qualify for an additional deduction of 50% of qualifying expenditure.

For understanding this section, definition of qualifying expenditure should be known. Qualifying expenditure have been defined to include only staff costs, consumables, and any other expense prescribed by the Minister. This is a narrower definition of qualifying expenses than under Section 14D. Expenditure incurred on R&D performed outside of Singapore do not qualify for the additional deduction of 50%.

Third part for the incentives is Section 14DA(2); includes %250-%300 enhanced deduction under the Productivity and Innovation Credit Scheme (PIC). The enhanced deduction under the PIC scheme is granted for tax years 2011 to 2018. Under this scheme, the tax deduction of qualifying R&D expenditure on R&D carried out inside or outside of Singapore is enhanced as below;

- For Singapore based R&D a %250 or for non-Singapore based R&D enhanced deduction is granted on the first SGD 400.000 of qualifying R&D expenditure incurred per year or

SGD 600.000 for qualifying SMEs effective from tax year 2015. This deduction is addition to the %100 base deduction under Section 14D and %50 additional deduction under Section 14 DA(1) (for Singapore R&D only). With this enhancement, there will be %400 tax deduction available on the first SGD 400.000 of such expenditure incurred or SGD 600.000 for qualifying SMEs.

-The base deduction and additional %50 deduction, under Sections 14D and 14DA(1) respectively, remain applicable to qualifying R&D expenditure exceeding the SGD 400.000 or SGD 600.000 for qualifying SMEs expenditure caps per year.

-For the tax years 2013 and 2015, the PIC enhanced deduction is granted under a combined expenditure cap of SGD 1.2 million or SGD 1.4 million (for qualifying SMEs) over the three year period. For the tax years 2016 to 2018, the combined cap is SGD 1.2 million or SGD 1.8 million (for qualifying SMEs) over the three year period.

In addition, there is the option (in lieu of the tax deduction) to convert up to SGD 100K of qualifying expenditure into a non-taxable cash grant at the conversion rate of 60% (i.e., SGD 60K) for each tax year 2013 to 2018. There is also a dollar-for-dollar matching cash bonus (PIC bonus) for tax years 2013 to 2015, subject to an overall cap of SGD 15K for all three years combined and a minimum spending requirement of SGD 5K for each tax year.

Fourth part for the incentives is Section 14E includes additional deduction. This provision allows an additional super deduction for R&D projects which are carried out in Singapore and approved by the Singapore Economic Development Board (EDB) before 31 March 2020.

The combined total claims under Sections 14D, 14DA and 14E, with respect to the approved project, are capped at 200% of the taxpayer's actual R&D expenditure. The Section 14E further deduction does not apply to expenditure for which the enhanced deduction under the PIC has been allowed.

### IV. TAX INCENTIVES AND LEGAL REGULATIONS ABOUT INTELLECTUAL PROPERTY (IP)

The R&D expenditure need not be related to the entity's existing trade or business as long as the R&D is performed in Singapore. If the R&D payments are made by an entity to a R&D organization for R&D performed outside Singapore, a claim for deduction will be allowed to such entity, provided the R&D expenditure is related to the entity's existing trade or business and that any benefit that arises from the R&D accrues to the entity itself. Moreover, qualifying R&D expenditure also includes payments made under any cost sharing agreement.

With respect to the Section 14D base and Section 14DA(2) PIC enhanced deductions, R&D may take place outside of Singapore but must relate to taxpayer's existing trade or business. The taxpayer must bear the financial risk of carrying out the R&D activities and effectively own and be able to commercially exploit the know-how, IP or other results of the R&D activities. No prior approval is required to claim these deductions.

Only R&D activities undertaken in Singapore qualify for the section 14DA(1) additional 50% deduction. The taxpayer must bear the financial risk of carrying out the R&D activities and effectively own and be able to commercially exploit the know-how, IP or other results of the R&D activities. No prior approval is required to claim the deduction. For the Section 14E further deduction, the R&D project must be carried out in Singapore and must receive special approval from the Minister (advance application with the Singapore Economic Development Board is required).

So, the company receiving the R&D incentive must be the beneficiary of the results of the R&D activities. R&D activities are not restricted to those conducted in Singapore. However, only those activities performed in Singapore are eligible for the 150% enhanced tax deduction. Qualifying R&D expenditure associated with overseas activities is only eligible for the 400% enhanced tax deduction (capped at S\$400,000). Role of the tax authorities in administering tax-based R&D Incentives Expenditure claimed is processed by the Singapore tax authorities, i.e. the Inland Revenue Authority of Singapore (IRAS). The IRAS also monitors the activities that are claimed to ensure compliance with the R&D enhanced tax deduction regime.

#### V. ADMINISTRATIVE REQUIREMENTS AND CONTROL OF INCENTIVES

Companies are not required to seek government pre-approval for the main R&D tax allowance. For the other discretionary tax incentives, approval must be granted by the EDB. To be eligible for the enhanced tax deductions, a company must submit the claim in its income tax return and tax computation, together with the completed R&D Claim Form, by the annual filing deadline of 30 November. Where a company incurs at least SG\$150,000 of R&D expenditure (net of Government grants and subsidies), it is required to provide a detailed description of the R&D project undertaken based on prescribed guidelines. Where a company wishes to claim more than 60% of the sum payable to an R&D organization or under a CSA as eligible R&D expenditure, the claimant must submit to IRAS, copies of invoices issued by the R&D organization detailing a breakdown of the expenditure items. The Inland Revenue Authority ("IRAS") requires taxpayers to lodge an R&D claim in each income tax return for the relevant year of assessment on a project-by-project basis. Detailed scientific/technical project reports must be lodged for each R&D project claimed to substantiate that the R&D activities carried out qualify as R&D for tax purposes. Corresponding R&D expenditure breakdowns (staff costs, consumables, payments to R&D organizations) are also required on a project-by-project basis. It is critical for a taxpayer to maintain proper documentation of his R&D projects so that he can substantiate his claims to IRAS when requested.

Taxpayers are encouraged to maintain contemporaneous documentation from the start of the R&D project, rather than as an after-event. This is especially important for illustrating

how current knowledge was not available at the time R&D was performed.

#### VI. CONCLUSION

In Singapore Tax Code for normal R&D projects the main tax deduction is %100. Additional %50 deduction for qualifying expenditure including; staff costs (excluding directors' fees), consumables and other expenses prescribed by the Minister. If project is related with companies' trade and done in Singapore, expenditure incurred on RD cost sharing agreements may qualify as expenditure on R&D. By this way a company can use %100 tax deduction and additional %50 deduction including qualifying expenditure deemed as %60 fee of paid or actual qualifying expenditure (if there is a breakdown showing that is more than %60) for the years 2009 to 2025. The main R&D tax allowance provides for a 150% enhanced tax deduction on qualifying R&D expenditure in Singapore. The R&D allowance is further enhanced from 150% to 400% for the first SGD 400,000 of eligible R&D expenditure or SGD 600,000 for qualifying SMEs. With respect to the 400% enhanced tax deduction, a combined R&D expenditure cap of S\$1,200,000 applies from years of assessment 2013 to 2015. Other discretionary tax incentives include a 200% tax deduction on R&D expenditure incurred on projects approved by the Economic Development Board (EDB). Conditions must be negotiated. No further R&D projects will be approved for the 200% tax deduction, post 31 March 2015. Partial government grants are also available to offset costs from qualifying R&D projects.

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