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Software activities and the **R&D Tax Incentive**

OCTOBER 2020



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15-42221

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Software development

Who is this guidance for?

This information is for companies that are considering undertaking R&D involving software development and that are interested in understanding the R&D Tax Incentive and determining whether their activities may be eligible for the program.

Software development is an industry in its own right as well as an enabler of other industries. If you are in an industry such as manufacturing, mining or technology and you develop software to facilitate your R&D then this content will also be of interest to you.

The Australian Government recognises that R&D drives growth, future-proofs our economy, and positions Australia as an exciting place to invest. The R&D Tax Incentive supports companies to undertake experimental, and supporting, R&D activities that they might not otherwise have conducted due to uncertain returns. It is intended to promote the development, and improve the efficiency and international competitiveness of Australian industry. It is important that you understand what activities the R&D Tax Incentive supports.

What this guide is not

This information is intended to help you identify eligible R&D activities you might be conducting within your software development project, or in your project that is facilitated by the development of software. This guidance material does not cover every situation and is limited to general advice only. Any examples provided are for guidance only and are not finally determinative of whether a particular activity will or will not be eligible for the R&D Tax Incentive.

If you find that you are unsure about the eligibility of your activities, you can request AusIndustry to make a 'Finding' on whether the activities in question are eligible.

Understanding eligibility of software development activities

The software development industry is fast-paced and diverse in terms of the ideas generated, techniques created and methodologies applied to create new products, materials, devices and services. Terms like 'innovation' and 'research and development' (R&D) are often used to describe a wide variety of tasks/activities being undertaken in the software development industry.

However, if you want to receive support under the R&D Tax Incentive you need to understand how it defines 'R&D'. The term 'R&D activities' has a specific legislative definition found in <u>Division 355 of the Income Tax Assessment Act 1997</u> (ITAA97) which must be met in order for activities to receive support. Importantly 'core R&D activities' must be part of your activities.

It is important to note that 'innovation' does not necessarily equate to eligible 'core R&D activities'. Innovation is not part of the test for eligible R&D activities under the R&D Tax Incentive and innovation tends to encompass a broader range of activities that extend beyond experimental R&D activities and what is eligible under the program. At a general level, innovation has to do with putting new or significantly improved products on the market or finding better ways (through significantly-improved processes and methods) of getting products to the market. An innovative activity does not necessarily involve eligible R&D activities for the R&D Tax Incentive.

It is extremely important that you read and apply the definition in the legislation to avoid making costly compliance errors. This guidance material should be used to help you understand how to apply the legislation to what are and are not eligible software development R&D activities for the R&D Tax Incentive.

How does eligibility for the R&D Tax Incentive work?

Eligibility for the R&D Tax Incentive is assessed at the activity level rather than at the project level. Activities are the building blocks that make up a project. The R&D Tax Incentive registration application will ask you questions about your project for context purposes and to get a sense of your business, and will then ask for information on the specific activities within that project that you believe are eligible and that you would like to register for the R&D Tax Incentive. When registering, you must identify those specific R&D activities you intend claiming the R&D Tax Incentive for.

The R&D Tax Incentive includes two categories of eligible R&D activities:

- core R&D activities: experimental activities defined in more detail below; and
- supporting R&D activities: activities directly related to core R&D activities

Core R&D is required

You may only claim supporting R&D activities if they are directly related to core R&D activities and, under certain circumstances (e.g. where the activities produce goods or services, and where the activities fall within one of the exclusions) they must also be undertaken for the dominant purpose of supporting core R&D activities. This guide aims to provide some further clarity about these tests for you.

Minimum R&D spend

You must spend \$20,000 or more annually on eligible R&D activities (unless you conduct your research activities through a registered Research Service Provider (RSP)) to be eligible to make a claim for the R&D Tax Incentive.

Keeping records as you do R&D activities

If you do not have evidence that was generated at the time you conducted the R&D activities to show you have met all of the eligibility requirements below, it will be difficult for you to show the activities are eligible. If there is not contemporaneous evidence that an activity was conducted that meets all the eligibility criteria, then the Department of Industry, Innovation and Science (the department, on behalf of Innovation and Science Australia) may find that the activity is not eligible.

You should have detailed documentation, recording what you did and the process of each activity as it develops to:

- substantiate that the activity took place, and
- establish that the activity meets the legislative eligibility requirements of the R&D Tax Incentive program.

The sections below provide further guidance in relation to the evidence you need to keep to substantiate an R&D Tax Incentive claim. The department and the Australian Taxation Office (ATO) provide further guidance on record keeping requirements:

- R&D Tax Incentive: Record-Keeping and R&D Planning
- Research and development tax incentive: keeping records and calculating your notional deductions

What is an eligible core R&D activity?

Core R&D activities are experimental activities conducted for the purpose of generating new knowledge. Activities should be described in the registration form at a level of detail at which the elements of the definition of core R&D activities can be clearly seen to determine eligibility. Activities must meet all of the criteria in the definition of "R&D activities" to be eligible.

Criterion 1: Conducting experimental activities

The outcome of the experimental activities cannot be known or worked out before the experiment is carried out based on the current knowledge, information or experience reasonably available to a competent professional on a world-wide basis.

- The experiment must be carried out by applying a systematic progression of work. To establish this is the case at each stage, you must record:
 - the hypothesis you are testing
 - what the experiment, or set of related experiments, was and how it was conducted
 - o what the results of the experiment were, and
 - what conclusions were drawn from the results.

AND

Criterion 2: Generating new knowledge

- a) The activities must be conducted for the purpose of generating new knowledge:
 - The knowledge generated must be new in that it was not already available and reasonably accessible in the public arena on a world-wide basis at the time the activities were conducted. It cannot just be new to a particular context or location, your organisation or your industry
 - For the purposes of this program it is knowledge that can only be generated by undertaking an experiment as part of a systematic progression of work – if you are able to access the knowledge without needing to undertake a systematic progression of work then it will not be new knowledge
 - Businesses are expected to do a thorough search to ensure the knowledge doesn't already exist or is not publically available, and to keep records of your search.

While you can't absolutely prove that the knowledge you need doesn't already exist, you are expected to make reasonable attempts to find out. For example, you could undertake a search of major open source code repositories (such as GitHub) and/or tech blogs, consult with your professional network and ask questions on tech forums.

- b) The outcome of the activities cannot be known or determined in advance:
- The outcome can only be determined by conducting an experiment that applies a systematic progression of work (i.e., a competent professional in the field wouldn't be able to extrapolate it from existing knowledge).

What is a hypothesis?

Core R&D activities must have one or more hypotheses. A hypothesis is an explanatory statement that can be proven or disproven by conducting an experiment.

For example:

Compression Algorithm v1 will compress a 12-megapixel image without exceeding the limits of the low-power processor; or

Test Algorithm v1 will enhance speed of the 'alpha' data extraction tool to interrogate the dataset and accurately return relevant error-free data within 20 milliseconds.

A hypothesis relates to a specific, technical or scientific uncertainty, or a set of related gaps, that is being tested by an experiment, it is not the objective of a project as a whole.

A statement like 'We are able to make our website mobile-responsive' is not a valid hypothesis for core R&D activities, as it is too broad (it is not activity specific), and is not falsifiable.

The hypothesis will generally direct the design and conduct of the experiment, observation and evaluation.

What is an experiment?

Core R&D activities are experimental activities - they must involve conducting an experiment, or set of related experiments, to test/evaluate a hypothesis whose outcome is not known, or able to be determined, before conducting the experimental activity(ies) based on the knowledge, information and experience available to you.

Experiments involve a series of tasks that are undertaken in a planned and systematic way to evaluate a hypothesis. The experimental steps should be recorded in such a way that they can be repeated by a competent professional in the field. Upon the completion of each experiment, key observations should be noted and the conclusion made.

Where experiments do not yield the required results, the inputs to the experiments (such as software code or design parameters) may be varied and further experiments repeated and completed until such time that the outcome is known or able to be determined.

A failed or abandoned experiment may still be eligible if the necessary criteria are met.

What is new knowledge?

Knowledge that is new to the world (or not reasonably available to a competent professional in the relevant field). It is not sufficient that the knowledge is just new to the organisation conducting the research. In some cases, knowledge might be known or likely to exist but is not known publicly because of confidentiality. If this is the case, it will still be new under the definition of core R&D activities.

To generate new knowledge the completion of the core R&D activities within a software development project would be expected to be dependent on a scientific and/or technological advance.

Factors to consider when assessing the eligibility of your R&D activities

Software development can often be very innovative, but that does not mean that these same activities meet the definition of core R&D activities allowed under the R&D Tax Incentive. Whether or not software development activities qualify as core R&D activities depends on the specific activities.

There is a list of activities that are specifically excluded from being core R&D activities

Specific activities are purposefully excluded from being eligible as core R&D activities even if they are undertaken for the purpose of generating new knowledge and undertaken in an experimental way. Such activities are not considered to be within the policy intent of the R&D Tax Incentive to support R&D activities that might not otherwise have been undertaken except for the program.

However these activities can be supporting R&D activities if they are directly related to one or more core R&D activities and they are undertaken for the dominant purpose of supporting core R&D activities.

It is important to note that the following software development activity is excluded from being a core R&D activity:

 Developing, modifying or customising software for the dominant purpose of use for your company's internal administration (including the internal administration of business functions)

Before registering any activities, you should check which activities are excluded from being core R&D activities by the program. A list and detailed explanation of excluded activities is contained in A Guide to Interpretation.

Not all activities within the software development lifecycle may qualify as 'core R&D activities' under the R&D Tax Incentive

Even though the ordinary activities of the software lifecycle are often iterative and involve testing, they are not necessarily experimental (because they do not necessarily involve a systematic progression of work), nor do they necessarily have the purpose of generating new knowledge (involve scientific or technical uncertainty). While it will depend on the facts in each case, examples of activities that are not eligible as core R&D activities because they generally are not being conducted as experiments to test a hypothesis are:

- bug testing (identifying and fixing errors in code)
- beta testing
- user acceptance testing
- system testing
- requirements testing
- data mapping and data migration testing
- testing the efficiency of different algorithms that are already known to work
- testing websites in operation by measuring the number of hits
- digital transformation activities transforming predominantly manual processes to digital
- upgrading of technology in any sector
- routine computer and software maintenance
- converting any existing computerised or manual record-keeping system to a new system (applicable to human resources records, billings, maintenance of records, etc.)
- any kind of data manipulation
- any automated reporting system

These activities may be eligible as supporting R&D activities if they directly support an eligible core R&D activity.

If systems are capturing data and manipulating or analysing it, there must be clarity on the new knowledge that is sought to be generated by the activities. For example, mobile applications for train and bus schedules or for ordering take out from restaurants will capture and manipulate data for users but the process of developing these applications does not necessarily generate new knowledge.

Development of automated processes for testing and evaluating a product may qualify as experimental activities that generate new knowledge. However, testing and evaluating the product itself is largely routine systems integration and not an eligible core R&D activity.

What is an eligible supporting R&D activity?

If an activity does not meet the 'core R&D activities' eligibility criteria itself but is directly related to (and in some cases also undertaken for the dominant purpose of supporting) a core R&D activity, it may still be allowed by the program as a supporting R&D activity.

To be directly related, an activity must have a direct, close or relatively immediate relationship with one or more core R&D activity(ies). Activities that make a direct contribution to the conduct or evaluation of the experiment are likely to meet this requirement. You cannot claim for a supporting R&D activity that is not directly related to an eligible core R&D activity. It is not enough for the activity to simply be part of the same project. It must be directly related to a core R&D activity.

Supporting R&D activities might include setting up test beds, coding algorithms that will be used in an experiment and collating a data sample that will be used to conduct a relevant experiment.

Supporting activities excluded from being core R&D activities, and production activities.

In some cases, activities may only be eligible as supporting R&D activities if they are also undertaken for the dominant purpose of supporting a core R&D activity. This additional requirement occurs when activities:

- are purposely excluded from being a core R&D activity (e.g. software for internal administration, market research, market testing or market development), or
- produce, or are directly-related to producing, goods or services.

In these cases, the activities will not be eligible if the purpose of supporting core R&D activities was of secondary importance. To satisfy the dominant purpose test, the purpose of undertaking the claimed supporting activities must be the most important purpose.

For activities that are excluded from being core R&D activities, and production activities, they must still be directly related to a core R&D activity as well as undertaken for the dominant purpose of supporting core R&D activities.

Making a claim for software R&D activities

Record-keeping is a vital part of claiming the R&D Tax Incentive. The best way to assess whether you can claim is to look at the records you have, and see whether they demonstrate that you meet the eligibility criteria.

Prepare for claiming

You need to carefully self-assess the activities you wish to claim, and understand and be ready to demonstrate how they meet the eligibility requirements. You should only register activities if you feel confident with your assessment that what you are claiming is eligible and that you have the records to prove it.

Your company is responsible for ensuring that you understand the R&D Tax Incentive's eligibility criteria, and for having the information and records to support the R&D activity statements made in your R&D Tax Incentive registration application. This remains your responsibility regardless of whether:

- you choose to get external assistance from a consultant or advisor, or
- you complete the application yourself.

This means that if your registration is later found to be non-compliant, your company is responsible, and it will be your company that needs to pay the money back and any compliance fines.

What do I need to do to claim?

- Make and keep records of the R&D activities you are conducting and how you assessed that they are eligible
- Apply to register your self-assessed R&D activities with the department within 10 months of the end of the income year in which they were undertaken
 - For example, a company that conducted eligible activities in the financial year ending 30 June 2017 has until 30 April 2018 to register those activities
- Complete the R&D Tax Incentive Schedule (available from the <u>ATO website</u>) and claim the offset through your company's income tax return

What kind of expenditures can I claim?

The ATO is responsible for the rules about what expenditure is allowed by the program. The information below will give you a general idea of what expenditure is allowed.

You can claim expenditure that was incurred to conduct eligible core or supporting R&D activities, for example:

- wages, salaries, contractor fees
- rent, electricity, internet, hosting costs
- equipment, raw materials, testing kits

You may also notionally deduct the decline in value of a tangible depreciating asset used for R&D activities.

For each item, you can only claim the proportion of expenditure and depreciation that you incurred to conduct the eligible R&D activities. You must be able to show how you worked this out if you are asked.

If you would like to know more you should see the information on 'Amounts you can claim' on the ATO's website.

What kind of expenditures can't I claim?

You cannot claim for:

 'core technology': the cost of technology that you have purchased or licensed for the purpose of developing it further. However, the costs associated with further developing the core technology or other technology that is required to conduct experiments may still be eligible if the relevant criteria are met

Core technology example:

You have purchased a licence to use smart phone simulator software and you want to use it to experiment with an app in a smart phone environment. The expenditure on the licence could be eligible as you are not further developing the technology, you are using the technology to assist with your experiments

You have purchased a licence to the same smart phone simulator software and you are further developing the source code to create a better smart phone simulator package. This would be termed as core technology and the expenditure on the licence would not be eligible. This is because you are actually further developing the base simulator software code to suit your requirements

 expenditure that your company is not ultimately bearing the risk of expending (e.g. expenditure on activities done under contract where payment occurs regardless of the results). You can only claim for as much material as is used by the R&D activities

Necessary expenditure example:

You are modifying software as a supporting R&D activity that will facilitate an experiment on a production line to test a next generation glaze on wooden dolls. The production run will paint a total of 5,000 dolls with a regular glaze and divert 50 of the dolls to a different line with the new glaze. If you trial the new glaze on

50 dolls - it could be an eligible core R&D activity if the activity meets all the eligibility requirements

5,000 dolls - it would be unlikely to be an eligible core R&D activity

In this example, only a small number of the dolls painted with the regular glaze could be part of an eligible core R&D activity, and only if they were being used to test a hypothesis about the effectiveness of the new glaze.

What records do I need to keep?

Software developers may not be used to keeping extensive records, particularly if they adopt agile methodologies. However, if you want to access the R&D Tax Incentive it is highly recommended that you prepare and keep records documenting the activities you have carried out so you can demonstrate your activities meet the definition of R&D activities if required by the department or the ATO. To demonstrate how your activities meet the eligibility criteria, you can make use of less formal records, such as screenshots, instant messaging histories, and exported content from task tracking or project management tools.

The information you keep in your records needs to support your claims that particular

activities meet the definition of R&D activities and be understandable by someone outside of your R&D project. Your records will be used by the department and the ATO to assess whether your activities met the program's requirements. Some things to consider in relation to record keeping:

- generalisations, assumptions, assertions and speculative opinion are insufficient – detailed evidence about the specific activities you carried out is needed to establish eligibility
- oral evidence should be supported by contemporaneous documentation
- retrospective attempts to create evidence do not suffice

To support a claim for the R&D Tax Incentive, companies must be able to provide evidence that their core and supporting R&D activities meet each requirement of the legislation if required by the department or the ATO. These requirements and examples of evidence that may support eligibility are laid out below.

Table 1. For core R&D activities (generating new knowledge and conducting experiments)

Eligibility requirement	Examples of evidence
The outcome of the experiments (whether the hypotheses were true or false), could not have been known or determined in advance. This requirement is assessed using the standard of a competent professional on the basis of their knowledge, networks, or information they could reasonably gain access to.	 Records of literature reviews Email exchanges with industry Experts Screenshots of questions posted on tech blogs Details of failed attempts to use existing technology
Experiments are conducted for the purpose of generating new knowledge.	Minutes of board, project or team meetings where the need to conduct experiments was discussed

Eligibility requirement Examples of evidence The activities follow a systematic Records of each step of your progression of experimental work from experimental activity, e.g. what hypothesis to experiment, observation the hypothesis was, how you tested it, the data from your and evaluation and lead to logical experiment, how it was analysed. conclusions. whether the hypothesis was It is important to show that you proven true or false, and how conducted specific experiments based these results were used to create on specific hypotheses. any new hypotheses Code repositories or software versions with comments including weaknesses that were identified and rectified in successive versions Testing strategy and approach Project management documentation such as GANTT charts Expenditure is clearly linked to an Design and scoping documents eligible activity. showing how purchased items were used in experiments Where some or part of the work is being undertaken by contractors, you need to Exported content from task keep written agreements that set out the tracking or project management work to be undertaken, who performed tools (demonstrating the % of the work and where it took place. If this time that staff worked on eligible applies to you, you should also look at activities) For whom are the R&D activities conducted on the ATO website. How you determined what % of your utilities (excluding capital costs) was used for eligible R&D activities Contracts for any work, or parts of the work, undertaken by contractors

Table 2. For supporting R&D activities (directly supporting an eligible core R&D activity)

Eligibility requirement	Examples of evidence
Supporting R&D activities directly related to an eligible core R&D activity.	Technical records showing how and why the supporting R&D activity is directly related to one or more core R&D activities For example, why a GUI that is being claimed was necessary to conduct the experiments in a core R&D activity
 where supporting R&D activities are excluded from being core R&D activities produced goods or services, or are directly related to producing goods or services The dominant purpose of conducting these activities was to support a core R&D activity (rather than it being for a purpose of secondary importance – to satisfy the dominant purpose test the purpose of undertaking the activities must be the most important purpose). This is often a requirement where software has been developed to facilitate an experiment in an eligible core R&D activity on a production line. You must only claim expenditure for those goods or services which are used in the eligible R&D activities and not for commercial production runs, and your documents should support this. 	 Production run sheets and quality control sheets that identify which units were used for experiments and which were to be sold Where saleable goods are produced in an activity, your records need to show that you only produced sufficient numbers for the experiments and not for any commercial activity

You need to keep records of experiments and their outcomes at the time you are conducting them. Documentation prepared after the activities were conducted will not be considered reliable evidence that activities meet the eligibility criteria.

If an activity or project is terminated early, can I still claim?

Yes – you can claim for any R&D activities that meet the eligibility criteria in the legislation. Completion of an activity or project is not a factor. It is not necessary for your experiments to be successful – if an experiment returns a 'negative' result, this may still be an outcome that could not be known or determined in advance and you can still have the purpose of generating new knowledge.

If you terminate an activity or your project after completing a supporting R&D activity, but not the core R&D activity it supports, you must be able to clearly demonstrate with records that you had an intention to conduct the relevant core R&D activity. If this intention is not evident then the supporting R&D activity may not be eligible.

Can I claim for R&D activities that are done overseas?

The R&D Tax Incentive is intended to encourage Australian companies to conduct R&D activities they might otherwise not have conducted because of uncertain returns from those activities, and also to promote the development, and improve the efficiency and international competitiveness of Australian industry. Generally, only R&D conducted in Australia qualifies for the R&D Tax Incentive, however, you may be able to claim some overseas work if certain conditions are met:

- The overseas activity must be unable to be solely conducted in Australia or its external Territories because it requires access to a facility, expertise, equipment, a population, a geographical or geological feature not available in Australia, or conducting it in Australia or the external Territories would contravene a quarantine law. Work conducted overseas because it is less expensive will not meet this criterion.
- The overseas activity must be the subject of a finding that it is an eligible R&D activity.
- The overseas activity must have a significant scientific link to an Australian core R&D activity.
- This means that the Australian core R&D activity could not be completed if the overseas activity hadn't been undertaken.
 - All work on the Australian core R&D activity must be conducted solely in Australia or its external Territories. Activities that are outsourced where the workers undertaking the tasks are not physically located in Australia will not meet this criteria.
- The actual and reasonably anticipated expenditure on the overseas activity and any other overseas activities with a significant scientific link to the Australian core activities cannot be higher than the actual and reasonably anticipated expenditure on the Australian core activities and related Australian supporting activities.

To claim the R&D Tax Incentive for overseas activities, you must first apply for and receive a positive 'Overseas Finding' from the Department of Industry, Science, Energy and Resources. This application must be made prior to the end of the income year in which that activities are undertaken If you do not have a positive Overseas Finding, you must be able to demonstrate that the work was carried out in Australia, and not subcontracted out or otherwise performed overseas, and it otherwise meets the criteria to be an eligible R&D activity.

You can apply for an overseas finding.

Guide to common errors

Learn about common errors made in claiming the R&D Tax Incentive for software development on our website.

Getting more information

- Subscribe to the R&D Tax Incentive Information Bulletin and receive updates on guidance, taxpayer alerts, program trends, and topical news.
- Attend an R&D Tax Incentive information session to learn more about the R&D Tax Incentive and how to apply. Register to attend or be notified about an upcoming information session for businesses and tax agents.
- Read the legislation. The guidance on this page is an overview intended to help you more easily and quickly determine your eligibility. This guidance material does not cover every situation and is limited to general advice only.
- You must always assess your activities against the criteria in the legislation.
 The definition of 'R&D activities' is contained in the R&D section (Division 355) of the Income Tax Assessment Act 1997.
- The law that sets out the conditions for overseas activities is in the Industry Research and Development Act 1986.
- The Commonwealth disclaims all liability for any loss or damage arising from you or anyone else erroneously relying on this guide or any statement contained in it.
- It is ultimately your responsibility to seek and obtain your own advice about the eligibility of your activities for the R&D Tax Incentive.