

Research & Development Tax Credit Guidelines



These Guidelines should be read in conjunction with Section 766, Section 766A and Section 766B of the Taxes Consolidation Act 1997

This document is not a legal instrument. While every effort is made to ensure that the information given in this guide is accurate, responsibility cannot be accepted for any liability incurred or loss suffered as a consequence of relying on any matter published herein.

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1. Introduction

Sections 766, 766A and 766B of the Taxes Consolidation Act (TCA) 1997 (the Act) provide for a tax credit for certain expenditure on research and development (R&D) activities, plant and machinery and buildings. Credit is given at 25% of allowable expenditure. For accounting periods commencing prior to 1/1/2015 the amount of qualifying expenditure is restricted to incremental expenditure over expenditure in a base year (2003) defined as the “threshold amount”.

The Finance Act of 2012 introduced an allowable amount to be excluded from the incremental basis of calculation. This allowed the first €100,000 of qualifying R&D expenditure to qualify for the credit, regardless of the base year (2003) expenditure. This amount was increased for 2013 and 2014.¹

Prior to 2012, the qualifying R&D expenditure was reduced in full by the base-year expenditure in calculating the relief.

For accounting periods beginning on or after 1 January 2015, the requirement to subtract base-year (2003) R&D expenditure has been removed and all qualifying R&D expenditure will be eligible for the 25% tax credit.²

¹ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “qualifying group expenditure on research and development”

² Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “qualifying group expenditure on research and development”, amended by Finance Bill 2014

2. General Scheme

2.1 *Basic requirements for qualification*³

To qualify for the credit, the following must apply:

- the applicant must be a company.⁴
- the company must be within the charge to Irish tax.
- the company must undertake qualifying R&D activities within the European Economic Area (EEA).
- in the case of an Irish tax resident company, the expenditure must not qualify for a tax deduction under the law of another territory.

Qualifying activities must satisfy all of the following conditions⁵. They must—

1. be systematic, investigative or experimental activities;
2. be in a field of science or technology;
3. involve one or more of the following categories of R&D—
 - a. basic research,
 - b. applied research, or
 - c. experimental development.

In addition, they must

4. seek to achieve scientific or technological advancement; and
5. involve the resolution of scientific or technological uncertainty.

³ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “qualified company”

⁴ S.766 generally provides rules relating to groups of companies but provides that where a company is not part of a group the company shall be treated as a group comprising that one company. For ease of reading the singular term “company” is used throughout these guidelines. See also Section 7 of these Guidelines for further information with regard to groups.

⁵ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “research and development activities”

The tax credit is calculated separately from the normal deduction of the R&D expenditure in computing the taxable profits of the company⁶. Companies claiming the R&D tax credit are not required to hold the intellectual property rights resulting from the R&D work. Equally, there is no requirement for the R&D work to be successful. The definition of qualifying R&D activity requires that a claimant company engage in systematic activity which seeks to achieve a scientific or technological advancement and which involves the resolution of scientific or technological uncertainty.

All claims for R&D tax credit (under s.766) must be made within 12 months from the end of the accounting period in which the expenditure was incurred. Expenditure on buildings and structures to be used for R&D (s.766A) is not subject to the same 12 month period (for more detail see Part 5 of these Guidelines.)

2.2 Base year requirement⁷

The R&D tax credit was originally designed to incentivise incremental R&D expenditure. 2003 was set as the base year for all accounting periods. This meant that if a company incurred expenditure on R&D in 2003 the amount of that expenditure was to be subtracted from the current year expenditure when calculating a claim. This 2003 amount is referred to as the ‘threshold amount’. From 2012 the formula to calculate the qualifying expenditure was amended to allow an amount to qualify for the R&D tax credit irrespective of 2003 expenditure – see table below.

| Accounting Period | Base year restriction |
|--|---|
| Up to and including 31 December 2011 | Full base year (2003) expenditure (known as “threshold amount”) |
| Accounting periods commencing on or after 1 January 2012 | Threshold amount less €100,000 |
| Accounting periods commencing on or after 1 January 2013 | Threshold amount less €200,000 |
| Accounting periods commencing on or after 1 January 2014 | Threshold amount less €300,000 |
| Accounting periods commencing on or after 1 January 2015 | No threshold amount |

The Finance Act 2014 removed the requirement to subtract base year expenditure in calculating claims for accounting periods commencing on or after 1 January 2015.

⁶ Where the relevant accounting standard allows the company to recognise the value of the R&D credit in its financial statements any amount so included in the calculation of accounting profit/loss may be deducted in the calculation of taxable profit/loss.

⁷ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “relevant period”

2.3 Calculating the credit

For expenditure incurred in accounting periods commencing on or after 1 January 2009, the relief is calculated as 25% of [qualifying expenditure](#). The credit is initially used to reduce the liability to Corporation Tax (CT) for that accounting period.

Example no. 1:

In the 12 months ended 31 December 2012 PQ Ltd incurred €500,000 R&D expenditure. In the 12 months ended 31 December 2003 it incurred €250,000 R&D expenditure.

The tax credit is calculated as follows:

| | |
|---|------------------|
| Expenditure in relevant period ended 31/12/2012 | €500,000 |
| Less adjusted threshold amount (€250,000 - €100,000) | <u>€ 150,000</u> |
| <i>(up to first €100,000 excluded from the threshold in 2012)</i> | |
| Qualifying expenditure | €350,000 |
| Tax Credit: €350,000 @25% | €87,500 |

Example no. 2:

In the 12 months ended 31 December 2013 CBA Ltd incurred €500,000 R&D expenditure. In the 12 months ended 31 December 2003 it incurred €35,000 R&D expenditure.

The tax credit for 2013 is calculated as follows:

| | |
|---|-----------------|
| Expenditure in relevant period ended 31/12/2013 | €500,000 |
| Less threshold amount (€35,000 ≤ €200,000) | <u>€ 0,000</u> |
| <i>(up to first €200,000 excluded from threshold in 2013)</i> | |
| Qualifying Expenditure | €500,000 |
| Tax Credit: €500,000 @ 25% | €125,000 |

Example no. 3:

In the 12 months ended 31 December 2015 XYZ Ltd incurred €500,000 R&D expenditure. In the 12 months ended 31 December 2003 it incurred €150,000 R&D expenditure.

The tax credit for 2015 is calculated as follows:

| | |
|---|-----------------|
| Expenditure in relevant period ended 31/12/2015 | €500,000 |
| Less threshold amount (Not applicable) | <u>€ 0,000</u> |
| Qualifying Expenditure | €500,000 |
| Tax Credit: €500,000 @ 25% | €125,000 |

Where a company has insufficient Corporation Tax against which to claim the R&D tax credit in a given accounting period, the tax credit may be credited against the Corporation Tax for the preceding period, may be carried forward indefinitely or, if the company is a member of a group, allocated to other group members. The R&D credit can also be claimed by the company as a payable credit.

2.4 Payable credits⁸

Where a company has offset the credit against the Corporation Tax of the current and preceding accounting periods and an excess amount still remains, the company may make a claim to have the amount of that excess paid to it by Revenue in three instalments over a period of 33 months.

The first instalment to be paid will amount to 33% of the excess amount and becomes payable not earlier than the 21st day of the ninth month following the end of the company's accounting period in which the R&D expenditure was incurred.

The remaining balance of the excess amount will then be used to reduce the company's Corporation Tax liability of the next accounting period (if it has not otherwise been discharged) and then if any of the excess amount still remains, a second instalment amounting to 50% of that amount remaining will become payable not earlier than 12 months after payment of the first instalment.

Any part of the excess amount still remaining will then be used to reduce the company's Corporation Tax liability of the following accounting period (if it has not otherwise been discharged), and if any part of the excess amount still remains, that amount will become payable not earlier than 24 months after payment of the first instalment.

⁸ Section 766 of the Taxes Consolidation Act 1997, subsection 4 subject to subsections (4A) and (4B)

Payable credits are claimed on the Corporation Tax Return (form CT1). No supporting documentation in relation to qualifying R&D activity is required at the point of filing the CT1.

Example no. 4:

In the accounting period ended 31 December 2011 PSR Ltd. incurred €400,000 qualifying expenditure (after deduction of the threshold amount) on R&D. The following shows the company's Corporation Tax liability:

| <u>Accounting Period</u> | <u>Liability</u> |
|----------------------------------|------------------|
| 12 months ended 31 December 2010 | €30,000 |
| 12 months ended 31 December 2011 | €15,000 |
| 12 months ended 31 December 2012 | €11,000 |
| 12 months ended 31 December 2013 | €10,000 |

The tax credit due in respect of y/e 31 December 2011 is €100,000. (i.e. €400,000 @25%). The CT liability for 2011 is €15,000, which will be covered by this credit. The remaining tax credit of €85,000 may be carried forward and used to reduce the CT liability for the next and subsequent accounting periods.

Alternatively, the company may make a claim to:

1. Offset €30,000 of the remaining tax credit against the CT liability of the preceding period (y/e 31 December 2010). That liability will be reduced to nil; a refund of €30,000 will be due (assuming the liability for 2010 was previously paid and that a timely claim to repayment is made) and the excess credit remaining will be reduced to €55,000
2. Revenue will pay 33% of the remaining credit to the company as a first instalment. That payment of €18,150 (€55,000 @ 33%) will be paid not earlier than 21 September 2012. The excess credit remaining will be reduced to €36,850.
3. €11,000 of the unused credit will be offset against the CT liability for y/e 31 December 2012, leaving a balance of excess credit of €25,850.
4. Revenue will pay 50% of the remaining balance to the company as a second instalment. That payment of €12,925 (€25,850 @ 50%) will be paid not earlier than 21 September 2013.
5. €10,000 of the remaining unused credit will be offset against the CT liability for the y/e 31 December 2013, leaving a balance of unused credit of €2,925.
6. Revenue will pay the balance of €2,925 to the company as the third instalment, not earlier than 21 September 2014.

(Note: The current year R&D is always offset first, before any R&D credits carried forward are used – see Paragraph 2.8)

2.5 *Limit on amount of payable credits⁹*

The aggregate amount of payable credits in respect of R&D expenditure in an accounting period is subject to a limit that is the greater of—

- (i) the aggregate amount of Corporation Tax paid by the company for accounting periods ending in the ten years prior to the year preceding the accounting period concerned, reduced by any amounts of Payable R&D Credit claimed in respect of prior periods, OR
- (ii) the aggregate of payroll liabilities for the period concerned and the preceding accounting period (Payroll liabilities include amounts due to Revenue in respect of PAYE, PRSI and USC) reduced by the lesser of
 - a. any excess of aggregate payable R&D credit over aggregate payroll liabilities for all periods in respect of which a payable credit was claimed prior to the period in question; OR
 - b. the payroll liabilities for the preceding period.

This latter provision, (ii) above, applies to accounting periods commencing on or after 22 June 2011.

Example no. 5:

In the accounting period ended 31 December 2014 ABC Ltd incurred €500,000 of qualifying R&D expenditure. The company had payroll liabilities in both 2013 and 2014 of €50,000. The company first made a claim to payable R&D Credit in 2013.

| | |
|--|-----------------------------|
| R&D Tax credit: €500,000 @ 25% | €125,000 |
| Aggregate Corporation Tax paid for the period 2004-2013 | €30,000 |
| Aggregate Payroll Liability for 2013/2014 | €100,000 |
| Payroll Liability 2013 | € 50,000 |
| Payable Credit 2013 | € 20,000 |
| Excess of prior period Payable Credit over Payroll Liability | NIL |
| Reduction to aggregate payroll limit for 2013/2014 | NIL (Lesser of Nil or €50k) |
| Adjusted Payroll Liability Limit | €100,000 |
| Maximum repayable in 2014 (Greater of €100,000 or 30,000) | €100,000 |
| Carry forward Corporation Tax credit | €25,000 |

⁹ Section 766B, subsection 4B(b) of the Taxes Consolidation Act 1997,

Example no. 6:

In the accounting period ended 31 December 2015 XYZ Ltd incurred €600,000 qualifying expenditure. The company had aggregate payroll liabilities in 2014 and 2015 amounting to €50,000. This is the company's first claim to a payable credit.

| | | |
|---|---------|----------|
| Tax credit: €600,000 @ 25% | | €150,000 |
| Payroll taxes 2013/2014 | €50,000 | |
| Corporation Tax paid for the period 2004-2013 | €60,000 | |
| Maximum repayable credit in 2014 | | €60,000 |
| Carry forward of Corporation Tax credit | | €90,000 |

Example no. 7:

LMN Ltd. commenced trading in 2010.

| | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|--------|------|--------|--------|--------|
| Corporation Tax Paid | €2,500 | nil | nil | nil | nil |
| Payroll liabilities | €700 | €500 | €1,200 | €900 | €700 |
| R&D credit | nil | nil | €5,000 | €3,000 | €2,000 |
| Payable credit | N/A | nil | €2,500 | €900 | €700 |
| Excess payable credit over payroll liabilities | N/A | nil | nil | nil | nil |
| Maximum Payable Amount | N/A | N/A | €1,200 | €900 | €700 |

Note: In 2012, the CT limit is €2,500. This is higher than two year's payroll liability (1,700) Therefore the maximum that can be claimed as payable credit is €2,500.

For 2013 and 2014 the CT limit is €0 (€2,500 - €2,500). For 2013 the payroll liability limit of €2,100 (€1,200 + €900) is reduced by the lesser of either €2,100 or the payroll liability for the first year of the two year period (€1,200). Therefore the maximum that can be claimed as payable credit is €900.

In 2014, the payroll liability limit of €1,600 (€900 + €700) is reduced by the lesser of either €1,600 or the payroll liability for the first year of the two year period (€900). Therefore the maximum that can be claimed as payable credit is €700.

Example no. 8:

QVR Limited commenced trading in 2010. The company has been continually loss-making.

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|--------|--------|--------|--------|--------|--------|--------|--------|
| CT liability | nil | nil | nil | nil | nil | nil | nil | nil |
| Payroll liability | €600 | €500 | €400 | €500 | €700 | €800 | €600 | €700 |
| R&D credit | €1,000 | €2,000 | €3,000 | €1,000 | €2,000 | €3,000 | €3,000 | €3,000 |
| Payable credit | €600 | €500 | €900 | €500 | €700 | €1,000 | €700 | €700 |
| Excess payable credit over payroll liabilities | nil | nil | €500 | nil | nil | €200 | €100 | nil |
| Cumulative excess | nil | nil | €500 | €500 | €500 | €700 | €800 | €800 |

Note:

For 2012 the payable credit limit is calculated as follows: €900 (€400 + €500), reduced by the lesser of either nil or €500 (the payroll liability for the first year of the two year period). Therefore payable credit is €900.

For 2013 the payable credit limit is calculated as follows: €900 (€500 + €400), reduced by the lesser of either €500 (the excess) or €400 (the previous year's payroll liabilities). Therefore payable credit is €500

For 2014 the payable credit limit is calculated as follows: €1,200 (€700 + €500), reduced by the lesser of €500 (the excess) or €500 (the previous year's payroll liabilities). Therefore payable credit is €700.

For 2015 the payable credit limit is calculated as follows: €1,500 (€800+€700), reduced by the lesser of €500 (the excess) or €700 (the previous year's payroll liabilities). Therefore the payable credit is €1,000.

For 2016 the payable credit limit is calculated as follows: €1,400 (€800 + €600), reduced by the lesser of €500 + €200 = €700 (the cumulative excess) or €800 (the previous years payroll liabilities). Therefore the payable credit is €700.

For 2017 the payable credit limit is calculated as follows: €1,300 (€700 + €600), reduced by the lesser of €500 + €200 + €100 = €800 (the cumulative excess), or €600 (the previous year's payroll liabilities). Therefore the payable credit is €700.

2.6 How to treat grants received¹⁰

Any expenditure which is met directly or indirectly by any grant aid or assistance from

- the State, OR
- any board established by statute, OR
- any public or local authority or any other agency of the State, or of another relevant member state¹¹

will not qualify for relief.

Example no. 9:

If, in the case of PQ Ltd. (example no. 1, assuming the same expenditure in 2003), the company was entitled to a State grant of €20,000 in respect of R&D expenditure the tax credit for 2013 is calculated as follows:

| | |
|---|------------------|
| Expenditure in relevant period ended 31/12/2013 | €500,000 |
| Less grant | <u>(€20,000)</u> |
| | €480,000 |
| Less Threshold Amount (after first €200,000 excluded) | <u>(€50,000)</u> |
| Qualifying Expenditure | €430,000 |
| Tax Credit calculation: €430,000 @ 25% | €107,500 |

¹⁰ Section 766(1)(b)(v) of the Taxes Consolidation Act 1997

¹¹ The Finance Act of 2010 broadened this restriction to include any expenditure, which is met directly or indirectly by any grant aid or assistance from another relevant member state or from an agency of another relevant state. A relevant member state is a member state of the EU or EEA.

2.7 Time limit on claims and timeframes for payable credits¹²

Any claim under s.766 must be made within 12 months of the end of the accounting period in which the expenditure on R&D giving rise to the claim is incurred.

Any claim to offset unused credits against the Corporation Tax liability of the preceding accounting period and/or to have any excess paid by Revenue in three instalments may be made by completing the relevant section of the Form CT1. Claims for the three instalment payable credits can be paid not earlier than the 21st day of the 9th month following the end of the relevant period, and 12 months and 24 months respectively following that date.

While the claim for the first instalment must be made within the one-year limit mentioned above, claims for the subsequent instalments are not separately subject to this time limit. In the absence of a claim for payment the excess will be carried forward for offset against the company's Corporation Tax liability in the subsequent accounting period.

Note however that if a claim in respect of any given period is not made within the requisite 12 month period then no entitlement to any amount in respect of that period arises at any time.

2.8 Order of Offsets

Credits arising from the relevant period (i.e. the year of assessment in which expenditure is incurred) must be claimed first. If there are remaining credits from the relevant period, the company can carry back these credits to the previous accounting period. If credits still remain, the company can elect to either carry these credits forward, or to receive a payable credit. Note that this order of offsets applies equally to group expenditure. (See also Section 7 for further details on group claims.)

¹² Section 766 of the Taxes Consolidation Act 1997, Section 4B

Example no. 10:

Company RST Limited makes the following claim:

R&D credit due for relevant period ending 31/12/12 in respect of expenditure incurred on or after 1 January 2012 is €9,000,000.

| | |
|--|--------------|
| Unused credit carried forward from 31/12/2011 is | €4,000,000 |
| CT liability for a/c period ending 31/12/12 | €10,000,000 |
| Less current year R&D credit | (€9,000,000) |
| Balance of liability | €1,000,000 |
| Less unused credit from 2011 | (€1,000,000) |
| Liability | Nil |

Note: The tax credit in respect of expenditure incurred in 2012 is offset prior to any excess carried forward. The balance from 2011 is €3,000,000 (€4,000,000 - €1,000,000), and will be carried forward to be set against the CT liability for the succeeding relevant period.

Example no. 11:

In the 12 months ended 31 December 2012 QPS Ltd incurred €2,000,000 qualifying R&D expenditure. It has outstanding instalments of payable credit in respect of the periods 2010(3rd instalment of €100,000) and 2011(2nd instalment of €200,000) and an amount of non-payable R&D credit carried forward from a period prior to 2008.

The tax credit may be applied as follows:

| | |
|--------------------------------------|------------|
| Corporation Tax Liability for 2012 | €800,000 |
| Less R&D Credit for 2012 (€2m * 25%) | (€500,000) |
| Pre 2008 Credit carried forward | (€300,000) |
| Corporation tax Liability Due | Nil |
| Payable Credit Due | €300,000 |

3. Qualifying Research and Development Activities¹³

Qualifying activities must satisfy all of the following conditions. They must be:

Systematic, investigative or experimental activities, in a field of science or technology, encompassing one or more of the following categories of R&D:

- a. Basic research,
- b. Applied research,
- c. Experimental development.

In addition they must seek to achieve scientific or technological advancement, and involve the resolution of scientific or technological uncertainty.

3.1 *Systematic, Investigative and Experimental Activities*

- It is expected that activities will be undertaken in a planned logical sequence – generally to a recognised methodology – with detailed records being maintained. It is important that the claimant is able to provide records and details of the activities carried on, not just the outcomes. It is necessary for companies to document and be in a position to present evidence of qualifying activities, including dated documents of the original scientific or technological goals of the activity; the progress of the work; how it was carried out, and any conclusions arrived at.
- Each project should be documented showing clearly why each major element is required and how it fits into the research activity as a whole. To build on the results of testing undertaken in a systematic way requires the organised documentation of work undertaken by way of experimentation or investigation.
- Relevant measures should be used to determine the scientific or technological properties of the R&D activity are met. Revenue expects to see documentation that charts the lifetime of the project from start to finish. Within these records there should be reference to milestones achieved. Where a particular path has not been successful and a different path required, then documentation to support these decisions should be available if needed.
- It is important that claimants realise the importance of contemporaneous and relevant documentation to support the claim. Failure to keep such documentation may result in the claim for the R&D tax credit being disallowed.

¹³ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “research and development activities”

3.2 Field of Science & Technology

The categories of activities that qualify for relief are set out in S.I. No. 434 of 2004, TCA 1997 (Prescribed Research and Development Activities) Regulations 2004. The categories are:

1. Natural Sciences
2. Engineering and Technology
3. Medical Sciences
4. Agricultural Sciences

The regulations list further sub-categories for each of the above. Further details are contained in [Appendix 1](#). Note in particular that Social Science Activities are excluded from the list. Excluded activities are set out in [Appendix 2](#).

3.3 Types of Research¹⁴

Basic Research means “*experimental or theoretical work undertaken primarily to acquire new scientific or technical knowledge without a specific practical application in view*”.

Applied Research means “*work undertaken in order to gain scientific or technical knowledge and directed towards a specific practical application*”. Applied research is usually undertaken either to determine possible uses for the findings of basic research or to determine new methods or ways of creating practical applications.

Experimental Development means “*work undertaken which draws on scientific or technical knowledge or practical experience for the purpose of achieving technological advancement and which is directed at producing new, or improving existing, materials, products, devices, processes, systems or services including incremental improvements thereto*”.

3.4 Scientific or Technological Advancement

An advance in science or technology means an advance in the overall knowledge or capability in the field of science or technology (not an advance in the company’s own state of knowledge or capability alone).

The test relates to knowledge or capability reasonably available to the company or a competent professional working in the field. Where knowledge of an advance in science or technology is not reasonably available, e.g. where it has not been published; is not in the public domain; or it is a trade secret of a competitor, companies may not be disqualified from claiming the credit where they undertake activities seeking to independently achieve the same scientific or technological advancement.

¹⁴ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “research and development activities”

Reasonably available scientific or technical knowledge or experience includes information that is reasonably available to a company from both internal and external sources.

A scientific or technological uncertainty may be addressed by one company, or a number of companies may be working to resolve the same scientific or technological uncertainty at the same time.

If the solution to a scientific or technological uncertainty is reasonably available to a competent professional working in the field, lack of knowledge by a company due to a lack of diligence in seeking that solution or lack of appropriate expertise within the company does not constitute scientific or technological uncertainty.

3.5 Scientific or Technological Uncertainty

This arises in two situations, viz.

- a. Uncertainty as to whether a particular goal can be achieved, or
- b. Uncertainty (from a scientific or technological perspective) in relation to alternative methods that will meet desired specifications such as cost, reliability or reproducibility.

If, on the basis of reasonably available scientific or technological knowledge or experience, such technological or scientific uncertainty exists, R&D activity would aim to remove that uncertainty through systematic, investigative or experimental activity.

Uncertainty as to whether new materials, products, devices, processes, systems or services will be commercially viable is not scientific or technological uncertainty. In commercial settings, however, a reasonable cost target is always an objective, and attempting to achieve a particular cost target can require the resolution of a scientific or technological uncertainty. Cost targets may require that scientifically or technologically uncertain alternative approaches, configurations etc. have to be attempted although more costly alternatives exist. A scientific or technological advance will always involve the resolution of uncertainty.

3.6 New materials / products / systems

Systematic, experimental or investigative activities directed at developing new or improved materials, products, devices, processes or services *may* qualify for the tax credit provided the activities seek to achieve the goals set out above. However, a process, material, device, product, service or system does not become an advance in science or technology simply because science or technology is used in its creation.

Work which uses science or technology but which does not advance scientific or technological capability or knowledge as a whole is not an advance in science or technology. Normal technology transfer or making improvements to materials, products devices, processes, systems or services through the purchase of rights or licence; or through the application of known principles or knowledge would not represent scientific or technological advancement. Neither

does solving technical problems or trouble-shooting using generally available scientific or technological knowledge or experience meet this test. In addition, work in the development of a new or improved product will not, of itself, constitute R&D activities. The work may, for example, entail the resolution of extensive design issues but may not involve a scientific advancement.

For example, the application of established management tools such as 'Lean' process improvement systems may increase efficiencies or increase productivity, or both, but does not constitute qualifying R&D

3.7 Software

The [OECD Frascati Manual](#) states *"for software development to be classified as R&D its completion must be dependent on the development of a scientific and / or technical advance and the aim of the project must be resolution of a scientific and / or technical uncertainty on a systematic basis."*¹⁵

Software developments using known methodologies in standard development environments using the standard features and functions of existing tools would **not** typically advance technology and would not address or resolve technological uncertainty. Undertaking routine analysis, copying, upgrading or adaptation of an existing product, process, service or material would not be considered to be R&D activities. Therefore much software development does not qualify as R&D activity.

However, Revenue recognises that there is a significant amount of ground-breaking software development taking place in Ireland across a range of sectors that is delivering real advances in science and/or technology and involves the resolution of scientific or technological uncertainty.

Advances are typically made through innovation in software architectures, algorithms, techniques or constructs. It is important for claimant companies to identify not only those developments that result from qualifying activity but also the phases of the software development life-cycle that are qualifying activity.

While software development methodologies continue to evolve, and are often highly iterative in nature, they continue to contain certain key elements such as design, build and test.

Qualifying Activity

Systematic: Qualifying activity must be systematic in nature as well as achieving advances. Revenue recognises that *agile* development methodologies such as *Scrum* and similar techniques, while not exhibiting the linear nature of a traditional software lifecycle, are systematic in nature.

¹⁵ Section 2.4.1 of the OECD Frascati Manual 'Proposed Standard Practice for Surveys on Research and Experimental Development

Advances and Resolution of Uncertainty: Software development is no different from any other industry in that it is essential that claimant companies keep aware of developments in their field to ensure that activity for which the credit is claimed is directed at genuine advances. Subject to that caveat Revenue recognises that scientific or technological uncertainty may arise at various points throughout a development life-cycle including:-

- Development of mathematical models or algorithms to achieve a desired functionality goal(s);
- Translating such models or algorithms into code and ensuring that the desired goal(s) can be achieved;
- Ensuring that the application/process/tool developed will continue to function in different scale environments;
- Ensuring that the application/process/tool developed will function across a range of platforms;
- Ensuring that the application/process/tool developed will integrate as intended with other applications/systems.

Within a typical software development cycle there will be also be features that do not constitute qualifying R&D activity such as:

- User acceptance testing designed to satisfy users as to the accuracy and completeness of the product rather than to test feasibility or capacity;
- Development work aimed at packaging a product for market where no scientific or technological uncertainty exists; or
- Inclusion of features or functionality where no scientific or technological uncertainty exists.

In large scale projects using formal project governance methodologies each phase in a project life-cycle will have clear deliverables and associated resource assignments and therefore the tracking of qualifying expenditure should be a relatively straightforward exercise.

Smaller scale projects, although requiring appropriately defined project deliverables and expenditure tracking protocols may have less formal governance methodologies in place. In these circumstances, claimants must ensure that for those elements for which R&D credit is claimed, the qualifying element is properly recorded.

In *agile* development methodologies, qualifying and non-qualifying activity may take place simultaneously in a manner that makes them more difficult to separate. In these circumstances project managers should apportion the staffing and other costs associated with each element of a development in a manner that appropriately reflects the balance of effort expended on qualifying and non-qualifying activity.

3.8 Success or Failure of R&D Activity¹⁶

The Act requires that the activity must *seek to achieve* (as opposed to succeed in achieving) *scientific or technological advancement*. Even if the advance in science or technology sought by a project is not achieved or not fully realised, R&D may still take place.

For example, a particular R&D activity may cease or radically change if the advance originally sought becomes available from a scientific journal or newly published patent. This does not undermine the validity of the activity from the perspective of this test. Equally, determining that a hypothesis is incorrect may advance scientific knowledge.

Similarly, in experimental development, discovering that a certain technological alternative does not work can advance the technological knowledge base. Such a result would not, of itself, preclude a valid claim being made for R&D credit.

Where an R&D activity is shown to be systematic, investigative, or experimental and is undertaken to resolve a clearly defined scientific or technological uncertainty, the requirements of attempting to achieve scientific or technological advancement will generally be met.

Work carried out in incremental stages; the aim of which is the achievement of scientific or technological advancement; and which involves resolution of scientific or technological uncertainty will qualify as R&D.

¹⁶ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “research and development activities”

4. Qualifying Expenditure¹⁷

4.1 *Activities undertaken by the claimant company*

The tax credit is available in respect of expenditure incurred wholly and exclusively—

1. in the carrying on
2. by it (the company)

of qualifying R&D activities.

The phrase “in the carrying on” must be distinguished from “for the purposes of” or “in connection with” used elsewhere in the Taxes Consolidation Act 1997. Additionally, it should not be confused with expenditure incurred to enable a company to carry on R&D. The phrase “in the carrying on” is narrower in scope.

Costs which are **not** wholly and exclusively incurred in the carrying on of the R&D activity, including indirect overheads such as recruitment fees, insurance, travel, equipment repairs or maintenance, shipping, business entertainment, telephone, bank charges and interest, **do not qualify** as relevant expenditure.

However, overheads which are wholly and exclusively incurred directly in the carrying on of the qualifying R&D activity, for example power consumed in the R&D process, qualify for the credit.

4.2 *Employee / Staff Costs*

The eligibility of the cost of rewarding individuals will relate to the extent of their deployment to, and actual engagement in, qualifying R&D activities. In practice this means that where an employee spends an identified proportion of their time “in the carrying on” of qualifying activity, then that same proportion of their emoluments may be considered to be qualifying expenditure.

The term ‘emoluments’ may be taken to include pension contributions, bonus payments, health insurance or other items included in the reward package paid to R&D employees¹⁸. Emoluments also include holiday entitlement, public holidays etc..

Note that overheads associated with the employment of an individual e.g. HR costs, payroll team costs, canteen costs or similar are not considered to be eligible as these costs, while they may be incurred in connection with the qualifying activity, are not incurred **in the carrying on by it** of the activity.

¹⁷ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “expenditure on research and development”

¹⁸ Note that in the case of proprietary directors or other persons with the capacity to directly control their own emoluments, payments to such controlling persons which are significantly out of step with the normal emolument practice of the company will generally not be regarded as eligible expenditure.

- **Pension Costs**

If pension is a contracted part of the employees' emolument, that proportion of the pension costs which corresponds with the time spent on qualifying R&D is allowable.

- **Bonus Payments**

If an employee is working on qualifying R&D, that proportion of the bonus which corresponds with the time spent on qualifying R&D is allowable.

- **Health Insurance and other forms of emolument**

Similarly, where an employee is directly working on qualifying R&D, a proportion of any other emoluments corresponding to the amount of time spent on qualifying R&D is allowable. Note that benefits will not be allowable if they are paid by the company but not ultimately borne by the company.

Example no. 12:

60% of an employee's time is spent carrying out qualifying R&D. The employee's salary is €80,000.

| | |
|---|----------------|
| Cost of employee salary | €80,000 |
| Employer contributions (Pension, PRSI etc.) | €15,000 |
| Health Insurance costs (for employee only, not spouse) | <u>€2,000</u> |
| Total cost of employment: | <u>€97,000</u> |
| Allowable costs for R&D credit (60 % of €97,000) | €58,200 |

4.3 Agency staff

The use of agency staff is considered to be outsourcing for the purposes of computing the amount of qualifying activity and the related expenditure is, therefore, subject to the limitations on outsourcing set out in Section 6. This relates to any individual not remunerated directly by the company for their services.

4.3.1 Individual consultants

Costs incurred related to individual consultants who are hired on a part time or short term basis to undertake sub-contracted activity can be treated as part of the direct employee costs of the company and not as agency staff provided that the following conditions are met:

- The individual works under the company's control and direction.
- The individual works on the company's premises.
- The individual must be able to contribute specialist knowledge, which cannot be supplied by the in-house research team, to a specific R&D project being undertaken by this in-house team.
- The engagement period does not exceed 6 months.

4.4 Royalty Payments¹⁹

Expenditure on R&D shall not include a royalty or any other sum paid by a company to a connected person²⁰ and which is, in the hands of the recipient, income from a qualifying patent within the meaning of Section 234 of the Taxes Consolidation Act 1997, i.e. *'a patent in relation to which the research, planning, processing, experimenting, testing, devising, designing, developing or similar activity leading to the invention which is the subject of the patent was carried on in an EEA state.*

Royalty payments not subject to the above exclusion may qualify provided they are incurred wholly and exclusively in the carrying on of qualifying R&D activities.

4.5 Pre-Trading Expenditure²¹

Where expenditure has been incurred by a company in the carrying on of R&D activities before the company commenced to trade, a claim in respect of that expenditure must be made within 12 months from the end of the accounting period beginning at the date the company first carried on a trade.

The amount of the credit due is the amount which the company would have been entitled to claim if it had been trading when the expenditure was incurred.

That amount may then be carried forward and used against the Corporation Tax liability of future periods.

¹⁹ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a)(iii) in the definition of "expenditure on research and development"

²⁰ A connected person is generally a person (including a company) who can exercise control over the company as set out in Section 10 of the Taxes Consolidation Act 1997

²¹ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(b)(vi)

4.6 Materials used in R&D Activities which may be subsequently sold²²

Materials used in qualifying research and development activities may be of further commercial value after their research use has concluded.

In this situation, the lower of cost, or net realisable value of any materials or other saleable product which remain after the R&D activity should be deducted from the expenditure claimed.

4.7 R&D carried on as part of an Existing Trade

Expenditure which is incurred on qualifying R&D which is carried on as part of the trade activities of a company may qualify for the credit. In these circumstances the eligible expenditure is limited to additional expenditure that is incurred wholly and exclusively in the carrying on of the qualifying activity.

For example, where a company carries out qualifying R&D activity on a live production line while continuing to produce saleable product on the same line, costs such as increased unsaleable product and additional time costs which can be shown to have been incurred in the carrying on of the qualifying R&D activity may be eligible.

²² Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “expenditure on research and development”

5. Capital Expenditure

5.1 *Buildings and Structures used for Research & Development*²³

Expenditure on the construction or refurbishment of a building for use for qualifying R&D activity may qualify for an R&D tax credit under S.766A of the Act where such a building also qualifies for industrial buildings capital allowances (See Part 9 of the Act). The R&D tax credit is in addition to any capital allowances claimed. The credit is available for new expenditure on the construction, including refurbishment, of a building or structure where the R&D activities carried on by a company in that building or structure over a period of four years (referred to as the “specified relevant period”) represents at least 35% of all activities carried on in the building or structure.

Qualifying expenditure on the construction or refurbishment of a qualifying building may be treated as having been incurred either:-

- (i) on the date it was actually incurred, or
- (ii) on the date the building was first brought into use for the purposes of a trade, or the refurbishment is completed as appropriate.

Expenditure may be incurred on the construction or refurbishment of a building which spans two or more accounting periods. Where this occurs, the aggregate expenditure may be treated as having been incurred on the date that it was actually incurred, or on the date the building is first brought into use. The 12 month claim period applies by reference to the date that the expenditure is treated as incurred.

The cost of acquiring the land on which the building or structure is erected does not qualify for the R&D credit.

The credit is calculated by reference only to that portion of the building or structure to be used for R&D activities²⁴.

Where a building is used for qualifying R&D and for other (non- R&D) purposes, for example in production, the cost of the construction or refurbishment should be apportioned on a just and reasonable basis. Records should be maintained to show the computation of any apportionment and the rationale for the use of such basis of apportionment.

²³ Section 766A(i)(a) of the Taxes Consolidation Act 1997

²⁴ Section 766A(i)(b)(iii) of the Taxes Consolidation Act 1997

If an apportionment that has already been made in this manner is later shown not to be “just and reasonable” a revised apportionment must be made.

Any such expenditure which is met directly or indirectly by any grant aid or assistance from

- the State, OR
 - any board established by statute, OR
 - any public or local authority or any other agency of the State, or of another relevant member state²⁵
- will not qualify for relief.

Example no. 13:

Company A incurred €1,000,000 of relevant construction expenditure in the accounting period ended 31 December 2012

The qualifying R&D activities to be carried on by the company in that building over the specified relevant period (four years from the date of first use in 2012) represents 40% of all activities carried on. The tax credit under s766A is calculated as follows:

Specified relevant expenditure: 40 % of €1,000,000 = €400,000

Tax credit: **€400,000 @ 25% = €100,000.**

5.2 When a building / structure is sold, or ceases to be used for R&D

The credit is claimable as long as there is a minimum 35% usage of the building for R&D activity over a period of four years beginning on the date it is brought into use.²⁶ The tax credit is however clawed back if, within ten years of the accounting period for which a credit is claimed, the building or structure is sold, or is used for purposes other than either the carrying on of R&D activities or the same trade that was carried on by the company at the beginning of the specified relevant period and to which the R&D activity was related.²⁷ Revenue will claw back both the tax credit already used to reduce tax, and withdraw any unused tax credits.

²⁵ The Finance Act of 2010 broadened this restriction to include any expenditure, which is met directly or indirectly by any grant aid or assistance from another relevant member state or from an agency of another relevant state. A relevant member state is a member state of the EU or EEA.

²⁶ Section 766A(1)(a) of the Taxes Consolidation Act 1997

²⁷ Section 766A(3) of the Taxes Consolidation Act 1997

Example no. 14:

ABC Company incurred construction costs of €100,000 in 2013 on the construction of a building to be used wholly and exclusively for R&D activities. It received a tax credit of €25,000 in respect of that expenditure, which it offset against its CT liability for 2013. The building was sold in 2014. For tax year 2013, the R&D credit granted to ABC Company in 2013 will be clawed back as Schedule D Case IV income as follows:

| | |
|---|----------------|
| Total relief granted | €25,000 |
| Sch. D Case IV income (€25,000 X 4) | €100,000 |
| Tax Clawed Back @ 25% (€100,000 @ 25%) | €25,000 |

Example no. 15:

PSR Company incurred relevant R&D expenditure of €100,000 in 2012 on the construction of a building to be used wholly and exclusively for R&D activities. It received a tax credit of €25,000 in respect of that expenditure.

The building was sold in 2014. The company offset €12,000 against its CT liability for 2012 and carried forward the excess balance of €13,000.

It used €8,000 of this excess against its CT liability for 2013, leaving an excess of €5,000 still unused.

The tax credit claimed will be clawed back in 2014 as follows:

| | |
|--|---------|
| Unused credit of €5,000 <u>withdrawn</u> | |
| Total tax relief claimed (offset): | €20,000 |
| <i>(€12,000 for 2012 +€8,000 for 2013)</i> | |
| Sch. D Case IV income (€20,000 X 4) | €80,000 |
| Tax clawed back in 2014 (25% of €80,000) | €20,000 |

5.3 Plant and Machinery²⁸

Expenditure on plant and machinery may qualify for the R&D tax credit where such expenditure also qualifies for capital allowances. However, where plant and machinery which is used for qualifying R&D and for other (non-R&D) purposes, for example in production, the cost of the plant and machinery should be apportioned on a just and reasonable basis over each relevant period of its useful economic life.

If an apportionment that has already been made in this manner is later shown not to be “just and reasonable” a revised apportionment must be made in respect of each relevant accounting period and brought to account in the tax return for the period in which the adjustment is identified.

For the purposes of determining the amounts of expenditure on plant and machinery to be included in any computation of tax credit due under Section 766 TCA, 1997, Revenue are prepared to accept that expenditure on plant and machinery may be treated as incurred on either (1) the date the plant and machinery is first brought into use for the purposes of a trade or (2) the date the expenditure becomes payable. This latter option is subject to a condition that the credit will be clawed back if the plant or machinery is not brought into use for the purpose of a trade within two years of the expenditure becoming payable.²⁹

²⁸ Section 766(1A) of the Taxes Consolidation Act 1997

²⁹ See Tax Briefing No. 59 of 2005

Example no. 16:

Company A incurred expenditure on plant or machinery of €100,000 in both accounting period ending 31/12/2012 and 31/12/2013. This machinery was used for both R&D activities and production processing. Company A analysed the plant and machinery usage on a “machine hour basis”.

During A/P ending 31/12/2012 during a typical week, the machine was used for 25 hours of R&D and 30 hours of product production. During A/P ending 31/12/2013 during a typical week, the machine was used for 10 hours of R&D and 45 hours of product production.

Therefore, Company A should apportion the cost of the plant or machinery as follows:

| Accounting period ending | 2012 | 2013 |
|---------------------------------------|----------------------------------|---------------------------------|
| Annual cost of machinery or plant | €100,000 | €100,000 |
| Cost relevant to R&D | € 45,455 [€100,000 X (25/55)] | €18,182 [€100,000 X (10/55)] |
| R&D tax credit due (@ 25%) | € 11,364 | €4,546 |

6. Subcontracting R&D Activity

6.1 *When R&D is sub-contracted out, when is the credit allowable?*

The requirement in the definition of qualifying R&D activity that it be carried on “by it” (i.e. the company) denotes that the activities must be carried on **by the claimant company** and not by another person. There are two situations where relief is available to a company that has not carried out all of the qualifying R&D itself:

1. A company which incurs expenditure in the carrying on by it of qualifying R&D and pays a sum to a university or institute of higher education to carry out qualifying R&D activities in a relevant Member State can claim relief. Relief will be restricted to 5% of the expenditure incurred by the company itself on R&D activities or €100,000, whichever is the greater, subject to the company incurring at least the same level of expenditure on qualifying activity which it carries out itself.³⁰
2. A company which incurs expenditure in the carrying on by it of qualifying R&D and pays a sum to another person (not to a university or institute) who is not a connected person³¹, in order for that person to carry out qualifying R&D activities for the company, can claim relief. Relief will be restricted to 15% of the expenditure incurred by the company itself on qualifying R&D activities or €100,000, whichever is the greater, subject to the company incurring at least the same level of expenditure on qualifying activity which it carries out itself. This provision applies to accounting periods commencing on or after 1 January 2014. For accounting periods ending prior to this date, this relief is restricted to 10% of the expenditure incurred by the company in the carrying on by it of qualifying R&D activity.³²

It is important to note that the outsourced activity must constitute qualifying R&D activity in its own right.

In order to claim the credit for these costs, the company must notify the sub-contracting party in writing that they may not make a claim for the R&D credit for these purposes.

³⁰ Section 766(1)(b)(vii) of the Taxes Consolidation Act 1997

³¹ A connected person is generally a person (including a company) who can exercise control over the company as set out in Section 10 of the Taxes Consolidation Act 1997

³² Section 766(1)(b)(viii) of the Taxes Consolidation Act 1997

The following table illustrates these situations:

| | University or Institute of higher education | <u>Paid to another person (not to a university or institute)</u> |
|--|---|---|
| Accounting periods ending up to and including 31/12/11 | 5% of qualifying expenditure | 10% of qualifying expenditure |
| Accounting periods ending on or after 1/1/12 | The greater of 5% of qualifying expenditure or up to €100,000 | The greater of 10% of qualifying expenditure or up to €100,000 |
| Accounting periods commencing on or after 1/1/14 | the greater of 5% of qualifying expenditure or up to €100,000 | the greater of 15% of qualifying expenditure or up to €100,000 |

Example no. 17:

Company A incurred €250,000 expenditure in the carrying on by it of R&D activities in the period ended 31 December 2012. In addition, it paid €20,000 to a university and €300,000 to an unconnected third party, Company Z, to carry out R&D activities on its behalf.

In relation to the **€20,000** paid to the **University**, Company A may claim the full amount paid, subject to whichever is the greater of either the higher of 5% of its direct expenditure on R&D (5% of €250,000): €12,500, or up to €100,000 of direct expenditure. Therefore, it may claim the full amount paid to the University, €20,000.

In relation to the **€300,000** paid to **Company Z**, Company A may claim the full amount paid, subject to whichever is the greater of either the higher of 10% of its direct expenditure on R&D (10% of €250,000): €25,000, or up to €100,000 of direct expenditure. Therefore, it may claim €100,000, as this is the maximum allowable.

Company A's claim for the year ended 31 December 2012 will be made up as follows:

| | |
|--|-------------------|
| Company A's own expenditure | €250,000 |
| Allowable amount paid to university | + €20,000 |
| Allowable amount paid to Company Z | + <u>€100,000</u> |
| Total Company A qualifying expenditure | €370,000 |
| Tax credit due (€370,000 @ 25%) | €92,500 |

Example no. 18:

Company A incurred €2,500,000 expenditure in the carrying on by it of R&D activities in the period ended 31 December 2014. In addition, it paid €120,000 to a University and €300,000 to an unconnected third party, Company Z, to carry out R&D activities on its behalf.

In relation to the **€120,000** paid to the **University**, Company A may claim the higher of 5% of its own expenditure on R&D, which equates to €125,000 (€2,500,000 @ 5%) or up to €100,000 of direct expenditure, whichever is the greater. Therefore, it can claim the full amount of €120,000 paid to the University, as this is less than the maximum allowable.

In relation to the **€300,000** paid to **Company Z**, Company A may claim the higher of 15% of its own expenditure on R&D, which equates to €375,000 (€2,500,000 @ 15%) or up to €100,000 of direct expenditure, whichever is the greater. Therefore, it can claim the full amount of the €300,000 paid to Company Z, as this is less than the maximum allowable.

Company A's claim for the year ended 31 December 2014 will be made up as follows:

| | |
|--|-------------------|
| Company A's own expenditure | €2,500,000 |
| Allowable amount paid to University | + €120,000 |
| Allowable amount paid to Company Z | <u>+ €300,000</u> |
| Total Company A qualifying expenditure | €2,920,000 |
| Tax credit due (€2,920,000 @ 25%) | €730,000 |

7. Group Expenditure on R&D

7.1 Rules on group structures³³

Companies will be regarded as members of a group one is a 51 per cent subsidiary of the other, or both are 51 per cent subsidiaries of a third company, irrespective of the country of residence of each company.

A company shall not be regarded as a subsidiary of another unless, in addition to the 51 per cent shareholding relationship, the parent company is also entitled to 51 percent of the profits available for distribution to shareholders and would be entitled to a 51 share of any assets available for distribution in the event of a winding up of the company³⁴.

In determining whether this is the case, ownership of shares by a company dealing in shares is ignored.

The Order of Offset for credits claimed in respect of qualifying R&D activity in a group is the same as that for a company (See Paragraph 2.8)

Example no. 19:

ABC Ltd. own 60% of the shares of DEF Ltd.

DEF Ltd. owns 90% of the shares of XYZ Ltd.

As ABC Ltd. effectively controls 60% of DEF Ltd. and 54% (60% @ 90%) of XYZ Ltd., all three companies are members of a group for the purpose of claiming the R&D tax credit.

7.2 Qualifying group expenditure on R&D³⁵

For relevant periods commencing before 1 January 2015, qualifying group expenditure for a relevant period is the excess group expenditure on R&D activities in that relevant period over the threshold amount for that group.

The first relevant period will generally be the first period of one year ending at the end of the first common accounting period of the member companies of the group that commences on or after 1 January 2004. If the companies do not have a common accounting period they must jointly elect which accounting date should be used.

For all relevant periods commencing at any time after 31 December 2003 the base period is one year ending on a date in 2003 that corresponds with the end of the relevant period.

³³ s.766(1)(b) TCA 1997

³⁴ s.766(1)(b)(ii) TCA 1997 applies the group relief rules set out in ss.412 to 418 but applies a 51% rather than a 75% holding threshold.

³⁵ s.766(1)(a) TCA 1997, – in the definition of “qualifying group expenditure”

For accounting periods commencing on or after 1 January 2015, it is no longer necessary to adjust for the base year (2003) expenditure in the computation of the R&D tax credit.

7.3 Threshold Amount³⁶

“Threshold amount” is defined in relation to a relevant period of a group of companies; however the concept also applies to a single company. It is the amount of qualifying expenditure on R&D in the base period of 2003 (the threshold period). This amount is then compared with the expenditure on R&D by that group in the relevant period in order to determine the level of incremental expenditure.

Where a company is a member of a group for only a part of the base period, the expenditure is counted, for the purposes of the threshold amount, only if it was incurred at the time when the company was a member of the group.

7.4 Calculating qualifying group expenditure on R&D with threshold amounts³⁷

For accounting periods commencing on or after 1 January 2012, the following formula applies:

$$A + B$$

Where:

A is the first €100,000 of group expenditure on R&D in relation to the relevant period,

and

B is the excess of the amount of group expenditure on R&D in the relevant period over the threshold amount, but $A + B$ shall not exceed total group expenditure on R&D.

For accounting periods commencing on or after 1 January 2013 the value of A is increased to €200,000.

For accounting periods commencing on or after 1 January 2014 the value of A is increased to €300,000.

³⁶ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “threshold amount”

³⁷ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “qualified company”

This is illustrated in the table below:

| Accounting Period | Base year restriction |
|---|---|
| Up to and including 31 December 2011 | Full base year (2003) expenditure (known as "threshold amount") |
| Accounting periods commencing on/after 1 January 2012 | Threshold amount less €100,000 |
| Accounting periods commencing on/after 1 January 2013 | Threshold amount less €200,000 |
| Accounting periods commencing on/after 1 January 2014 | Threshold amount less €300,000 |
| Accounting periods commencing on/after 1 January 2015 | No Restriction |

Example no. 20:

RD Group Limited incurred qualifying R&D expenditure of €255,000 in the base year 2003, and qualifying R&D expenditure of €1,500,000 in each of the years 2011 – 2014

| <u>A + B</u> | <u>Qualifying Expenditure</u> |
|---|-------------------------------|
| 2011: €0 + (€1,500,000 - €255,000) | €1,245,000 |
| 2012: €100,000 + (€1,500,000 - €255,000) | €1,345,000 |
| 2013: €200,000 + (€1,500,000 - €255,000) | €1,445,000 |
| 2014: €300,000 + [€1,500,000 - €255,000) | €1,500,000* |

*While the calculation would result in a figure of €1,545,000, the qualifying expenditure cannot exceed the total Group R&D spend in the relevant period.

Where one member of the group is not within the charge to Irish tax, that member's qualifying R&D expenditure is not taken into account when calculating qualifying group expenditure.

Example no. 21:

AB USA Corp, AB Ireland Ltd., and BA Ireland Ltd. are all members of a group. AB USA Corp. is not within the charge to Irish tax, while the other two members of the group are. The group incurred R&D expenditure as follows: what about the threshold reductions?

| | 2011* | 2003 |
|-----------------|---------|---------|
| AB USA Corp | €75,000 | €40,000 |
| AB Ireland Ltd. | €65,000 | €30,000 |
| BA Ireland Ltd. | €32,000 | €10,000 |

As AB USA Corp. is not within the charge to Irish tax, its R&D expenditure is not taken into account for the purpose of calculating qualifying group expenditure.

Qualifying group expenditure for 2011 is calculated as follows:

| | | | |
|--|---------------------|---|----------------|
| AB Ireland Ltd. | (€65,000 - €30,000) | = | €35,000 |
| BA Ireland Ltd. | (€32,000 - €10,000) | = | <u>€22,000</u> |
| Qualifying group expenditure 2011 | | | €57,000 |

*The €100k, €200k and €300k exclusions relate to accounting periods commencing on or after 1 January 2012, 2013, 2014 respectively.

7.5 Allocation of group expenditure between group members³⁸

The members of the group may, by election, allocate the tax credit between group members as they wish. Alternatively the credit is allocated by reference to the following formula:

$$\frac{Q \times C}{G}$$

Where:

- **Q** is the qualifying group expenditure on R&D in the relevant period
- **C** is the amount of expenditure on R&D incurred by the company in the relevant period at a time when the company is a member of the group, and
- **G** is the group expenditure on R&D in the relevant period

³⁸ Section 766(3) of the Taxes Consolidation Act 1997

Example no. 22:

A group of companies, ABC Group, had an aggregate R&D expenditure of €500,000 in the relevant period commencing 1 October 2012 and an aggregate R&D expenditure of €110,000 in the relevant period commencing 1 October 2002 as follows:

| | 2013 | 2003 |
|------------------|-----------------|----------------|
| Company A | €200,000 | €100,000 |
| Company B | €200,000 | € 5,000 |
| <u>Company C</u> | <u>€100,000</u> | <u>€ 5,000</u> |
| Total | €500,000 | €110,000 |
| Adjusted total | | € 10,000 |

The first €100,000 of qualifying group expenditure for the relevant period is excluded for accounting periods commencing on or after 1 January 2012. The 2003 spend is therefore reduced to €10,000 for the purpose of this calculation. The incremental amount for the 12 months ended 30 September 2013 is therefore €490,000 (i.e. €500,000 - €10,000). The tax credit for the group will be €122,500 (i.e. €490,000 x 25%).

The members of the group who have incurred the qualifying R&D expenditure may allocate the tax credit however they so wish. They may divide it equally between the group members, or allocate it all to one company within the group.

In the absence of notification to Revenue will allocate according to the proportion of qualifying activity carried on by each group member as follows:

| | | |
|------------------|---|----------------|
| Company A | $[\text{€}490,000 \times (\text{€}200,000 / \text{€}500,000)] @ 25\% =$ | €49,000 |
| Company B | $[\text{€}490,000 \times (\text{€}200,000 / \text{€}500,000)] @ 25\% =$ | €49,000 |
| <u>Company C</u> | $[\text{€}490,000 \times (\text{€}100,000 / \text{€}500,000)] @ 25\% =$ | <u>€24,500</u> |
| Total | | €122,500 |

7.6 *Transfer of R&D activity within a Group*³⁹

Where a company which carried on qualifying R&D activity and has made a claim under s.766 ceases to carry on a trade and another company commences to carry on that trade and continues the qualifying R&D activity related to that trade which was carried on by the ceasing company, the “successor company” may claim any R&D tax credit amounts not used by the “predecessor company” provided that both companies were members of the same group of companies at the time of the transfer of the trade and provided that the “successor company” carries on the qualifying R&D activity for a period of at least 2 years after the transfer.

In these circumstances the “successor” company may use any unused credits to reduce its current or future Corporation Tax liability but it may not claim a payable tax credit in respect of any such unused amounts.

7.7 *Changes to Group Structure*

The threshold amount in relation to a group is fixed at the amount of expenditure incurred in the threshold period (2003) by those companies who were members of the group in that period. Where a company is disposed of by one group and acquired by another, any base year R&D expenditure incurred by the company which is being divested will remain with the divesting group, and subsequently does not form part of the base year expenditure of the acquiring group. These provisions do not apply where there is common control of the divesting and acquiring groups.

Example no. 23:

A US based company, XYZ Inc., buys 100% of the share capital of an Irish company, ABC Ireland Ltd., which was part of PSR Group. ABC Ireland Ltd. has incurred €500,000 of R&D expenditure in 2003, and no other company in the PSR group had qualifying R&D expenditure in 2003. The US based group XYZ Inc. had no R&D expenditure for 2003.

In this situation, the €500,000 base year expenditure of ABC Ireland Ltd. remains with the PSR group after ABC Ireland Ltd. has been transferred to XYZ Inc.

In practice, this may mean that where the divesting group has no other qualifying R&D activity the threshold amount for that group ceases to be relevant for the purposes of the R&D computation of any group.

³⁹ Section 766 (4C) of the Taxes Consolidation Act 1997

Example no. 24:

An Irish company LMN Ltd. buys 100% of the share capital of another Irish company DEF Ltd. to form a new group, Group Z. The ownership of LMN Ltd. is broadly unchanged.

LMN Ltd. had no R&D expenditure in 2003. DEF Ltd. had R&D expenditure of €250,000 in 2003. Neither company was part of a group in 2003.

In this situation, the R&D base year expenditure falls out of charge when DEF Ltd. is subsumed into Group Z as LMN Ltd had no commonality of control with DEF Ltd. in 2003.

7.8 Closure of an R&D Centre⁴⁰

Section 54 of the Finance Act 2010 changed the way in which the threshold amount is calculated where a group of companies operated two or more R&D centres in separate geographical locations during 2003 and subsequently closes down one of those centres on a permanent basis.

For relevant periods commencing on or after 1 January 2010 the R&D expenditure incurred in respect of the centre which has been closed is excluded from the threshold amount. The principal features of this provision are as follows:

- An “R&D Centre” is defined as a fixed base or bases, established in buildings or structures, which is used by a company for the carrying on of R&D activities.
- Two R&D Centres will only be treated as being in separate geographical locations where they are at least 20 kilometres from each other.
- A claw-back of any benefit gained under this provision will apply if –
 1. The R&D centre which has been closed down is subsequently used for the purposes of a trade by any company which is a member of that group, or
 2. The R&D activities that had been carried on in the closed centre in the 48 months preceding the closure are subsequently carried on in the State by any company which is a member of that group, or
 3. Within a period of ten years commencing on the date the R&D centre was closed, no company which is a member of the group remains within the charge to CT.

⁴⁰ Section 766 subsection (7C) of the Taxes Consolidation Act 1997

8. Requirements for a valid claim⁴¹

The legislative definition of a qualifying company requires that such a company carries on qualifying R&D activity and **maintains a record** of expenditure incurred by it in carrying on those activity. Proper records must be maintained by companies claiming R&D credit. Records need not be paper-based in all cases. Where a company maintains effective electronic records, for example relating to project management or staff attendance these will meet the record-keeping requirement. However, **contemporaneous** records, whether in a hard copy or electronic format, must be available for inspection by Revenue officials.

To avail of R&D tax credit the company must be in a position to demonstrate that its claim can satisfy two essential tests. First, that the activity is qualifying R&D activity (referred to as the “Science Test”) and, second, that the costs incurred in the carrying on of qualifying activity have been properly tracked and accounted for (referred to as the “Accounting Test”). Records must be kept to satisfy both tests. This requirement applies equally to the threshold period as it does to the relevant period (for accounting periods commencing prior to 1 January 2015). In the event of a claim being selected for examination by Revenue, records for the threshold period (2003) must be available for inspection where relevant.

8.1 *The Science Test*

This is to ensure the activities under review are consistent with the statutory definition of R&D activities.

Records required to be maintained to satisfy the science test

- a) A description of the R&D activities, the methods to be used and what the company seeks to achieve by undertaking the activities concerned.
- b) The field of science and technology concerned.
- c) The scientific or technological advancement that is the goal of the R&D activities.
- d) The scientific or technological uncertainty that the company is seeking to resolve in its R&D activities.
- e) Evidence that the scientific or technological advance(s) sought had not already been achieved and that the scientific and/ or technological uncertainties that the company was seeking to overcome were not already resolved or that such resolution would not be available to a competent professional working in the field, for example, evidence that a comprehensive literature review to determine the current status of scientific or technological knowledge in the area had been conducted prior to commencing the project.

⁴¹ Section 766 of the Taxes Consolidation Act 1997, subsection (1)(a) – in the definition of “qualified company”

- f) Details of the systematic investigation, including
- the hypothesis advanced.
 - the series of experiments or investigations undertaken to test the hypothesis.
 - documentary evidence of the necessity for each major element and how it fits into the project as a whole.
 - dated documents of the original scientific or technological goals, the progress of the work, how it was carried out and the conclusions.
 - indicators or measures identified at the commencement of the project to determine if the scientific or technological objectives of the R&D activities are met.
- g) the qualifications, skill and experience of the project manager.
- h) the numbers, qualifications and skill levels of other personnel working on the project.

8.2 The Accounting Test

This is to ensure that the expenditure claimed as being incurred on qualifying R&D activities is being correctly claimed.

Companies should be able to provide details of the allocation of resources and associated costs to each stage of a project. Details of the targets and deliverables specifically related to the resolution of scientific or technological uncertainties and the advances in scientific or technological knowledge sought should be directly associated with relevant accounting records.

Records containing the following information, if relevant, are required:

- a) The dates of commencement and termination of the project. The date of resolution of the scientific or technological uncertainty is a determining factor when considering where an R&D activity ends, and activity associated with commercial exploitation begins. Costs incurred after the R&D phase is completed do not qualify for the relief;
- b) A project plan with appropriate milestones and deliverables for management of the project;
- c) Details of progress made against the project plan;
- d) Details of the personnel involved in the project, their qualifications and the amounts of their time allocated to the project;
- e) The location where the R&D activities took place, and a breakdown of costs associated with the location (e.g. apportionment of light, heat etc.);

- f) Details of any amounts paid to universities or institutes of higher education and the qualifying R&D activity carried out by them on behalf of the company;
- g) Details of any amounts paid to non-academic subcontractors and the qualifying R&D activity carried out by them on behalf of the company;
- h) Details of the methods and bases of apportionment of all expenditure associated with the R&D.

8.3 *Method of Record Keeping*

In order to qualify for the R&D credit it is important that—

- all entries are made on a timely and consistent basis;
- all records are kept on a continuous basis; and
- all linking papers to accounts are kept.

The claimant company must be able to provide reliable assurances as to the integrity of the records, including the author/creator and date of creation of each record.

8.4 *Different Industry Norms*

Revenue is aware that different industries have different regulatory requirements, and across various industries that R&D activities may take place within different time-frames and be recorded in different ways. For example, R&D activity in the pharmaceutical industry typically takes place over a multi-year time frame, is heavily regulated and is monitored and recorded in a very systematic and methodical way.

The records required for Revenue purposes should generally be available within a company for its own internal purposes. However claimant companies should take care, whatever approach to record-keeping is used, that it will be sufficient to clearly identify qualifying activity and associated costs. Companies may wish to consult with their Tax District if they are uncertain as to the suitability of their records.

The demonstration of a systematic approach and the preparation of appropriate contemporaneous evidentiary materials is an essential element of any R&D claim. Revenue recognises that such evidence does not necessarily have to be available in traditional hard copies, but may be available electronically. When such resources are used to support a claim, they should clearly indicate the author / creator, and the date of creation.

8.5 Claiming the credit

Where a company is satisfied that it can comply with the requirements of the legislation and has maintained the necessary supporting records, a claim to relief may be made by completing the relevant sections of the form CT1 through the Revenue Online System (ROS). No supporting documentation is required to be submitted with the return. In this respect, claiming a R&D tax credit is no different from claiming any other CT relief or tax credit.

9. Payment to ‘Key Employees’⁴²

As an incentive to certain staff, a company may transfer some or all of its R&D credit to ‘key employees’.

In order to be considered as a ‘key employee’, the following criteria must be satisfied⁴³:

- The employee must perform at least 50% of their duties in “the conception or creation of new knowledge, products, methods and systems” and 50% or more of the cost of earnings from their employment must qualify as R&D expenditure.
- The employee must not be, or have been, a director of his or her employer company or an associated company, and must not be not connected⁴⁴ to such a director.
- The employee must not have, nor have had, an individual holding of more than 5% of the shares of the company or an associated company and must not be connected to a person who has such a material interest.

The amount of the credit that can be surrendered to key employees is limited to the amount the company could otherwise have used to reduce the CT liability in respect the accounting period in which the qualifying R&D activity was carried out.

The option to surrender any part of the credit is not available to loss-making companies. The company cannot surrender an amount that would have been due as a payable credit.

To surrender all or part of the credit a company must:

1. Pay the amount of CT which it could otherwise have reduced.
2. Make a claim to Revenue,
and
3. Notify each key employee in writing of the amount surrendered to that employee.

If the company has any outstanding tax liabilities, including any balance of CT payable in respect of the accounting period in respect of which the credit arises, it will not be entitled to surrender any amount.

A key employee can claim the credit in the tax year following the tax year in which the accounting period of the company that surrendered the credit ends.

⁴² Section 766(2A) of the Taxes Consolidation Act 1997

⁴³ Section 472D(1) of the Taxes Consolidation Act 1997

⁴⁴ A connected person is a spouse, civil partner or close relative. See Section 10 of The Taxes Consolidation for full details

10. Consultation with other persons (experts)⁴⁵

To ensure compliance with legislation Revenue may examine the entitlement of certain claims to tax credit for R&D activities. Revenue may enlist the assistance of qualified individuals with specialised knowledge in the relevant field of science or technology. Those individuals act on a consultancy basis for Revenue and report to Revenue as to whether, in their opinion, the activities examined constitute R&D activities, as defined in s766 of the Act. All such individuals are required to sign a confidentiality agreement with Revenue prior to engagement.

Where the opinion of such an expert is disputed by a claimant company the expert may be required to give evidence before the Appeal Commissioners or a court of law.

Before disclosing information to such experts, Revenue will notify the claimant company of the identity of the expert it proposes to engage and the information that it intends to disclose to that expert.

A claimant company may object to the use of a particular expert where it has reason to believe there would be a genuine conflict of interests. In any case of dispute the claimant company will have the right of appeal to the Appeal Commissioners against the use of a particular expert.

⁴⁵ Section 766 (7) of the Taxes Consolidation Act 1997

Appendix 1 Categories of Activities which may qualify for the R&D credit⁴⁶

Natural Sciences

1. Mathematics and computer sciences, including mathematics and other allied fields, computer sciences and other allied subjects, software development.
2. Physical sciences including astronomy and space sciences, physics and other allied subjects.
3. Chemical sciences including chemistry and other allied subjects.
4. Earth and related environmental sciences including geology, geophysics, mineralogy, physical geography and other geosciences, meteorology and other atmospheric sciences including climatic research, oceanography, volcanology, paleoecology and other allied sciences.
5. Biological sciences including biology, botany, bacteriology, microbiology, zoology, entomology, genetics, biochemistry, biophysics and other allied sciences, excluding clinical and veterinary sciences.

Engineering and Technology

1. Civil engineering including architecture engineering, building science and engineering, construction engineering, municipal and structural engineering and other allied subjects,
2. Electrical engineering, electronics including communication engineering and systems, computer engineering (hardware) and other allied subjects,
3. Other engineering sciences such as chemical, aeronautical and space, mechanical, metallurgical and materials engineering, and their specialised subdivisions; forest products; applied sciences such as geodesy and industrial chemistry; the science and technology of food production, specialised technologies of interdisciplinary fields, *e.g.* systems analysis, metallurgy, mining, textile technology and other allied subjects.

Medical Sciences

1. Basic medicine including anatomy, cytology, physiology, genetics, pharmacy, pharmacology, toxicology, immunology and immuno-hematology, clinical chemistry, clinical microbiology, pathology
2. Clinical medicine including anaesthesiology, paediatrics, obstetrics and gynaecology, internal medicine, surgery, dentistry, neurology, psychiatry, radiology, therapeutics, otorhinolaryngology and ophthalmology,
3. Health sciences including public health services, social medicine, hygiene, nursing, epidemiology.

Agricultural Science

1. Agriculture, forestry, fisheries and allied sciences including agronomy, animal husbandry, fisheries, forestry, horticulture, and other allied subjects,
2. Veterinary medicine.

⁴⁶ Statutory Instrument No. 434 of 2004

Appendix 2 Categories of Activity that are not research and development activities⁴⁷

- (a) research in the social sciences (including economics, business management, and behavioural sciences), arts, or humanities;
- (b) routine testing and analysis for purposes of quality or quantity control;
- (c) alterations of a cosmetic or stylistic nature to existing products, services or processes whether or not these alterations represent some improvement;
- (d) operational research such as management studies or efficiency surveys which are not wholly and exclusively undertaken for the purposes of a research and development activity;
- (e) corrective action in connection with breakdowns during commercial production of a product;
- (f) legal and administrative work in connection with patent applications, records and litigation and the sale or licensing of patents;
- (g) activity, including design and construction engineering, relating to the construction, relocation, rearrangement or start up of facilities or equipment other than facilities or equipment which is to be used wholly and exclusively for the purposes of carrying on by the company of research and development activities:
- (h) market research, market testing, market development, sales promotion or consumer surveys;
- (i) prospecting, exploring or drilling for, or producing, minerals, petroleum or natural gas;
- (j) the commercial and financial steps necessary for the marketing or the commercial production or distribution of a new or improved material, product, device, process, system or service.
- (k) administration and general support services (such as transportation, storage, cleaning, repair, maintenance and security) which are not wholly and exclusively undertaken in connection with a research and development activity.

⁴⁷ Note: These definitions are set out in Statutory Instrument No. 434 of 2004 "Prescribed Research and Development Activities". However, Section 66 subsection (1)(a)(ii) of Finance Act 2006 clarified that only expenditure wholly and exclusively incurred in the carrying on of qualifying activity is eligible to claim the R&D credit.