

Research and development tax relief available for construction and related industries



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*Research and development tax relief available for construction and related industries.
Demystification guide*

This report has been prepared for Buildoffsite by CIRIA in consultation with PwC

Front cover image: Heathrow's innovative land mark air traffic control tower (copyright BAA)

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Demystification guide

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1 Foreword

This report explains in simple terms the principles of R&D tax relief (credits). It is not a definitive guide as any matter of taxation can have levels of complexity which require more expert knowledge and advice should be sought from your taxation advisors. However for many businesses undertaking R&D this guide will set you on the right path and it may be that all you are left to do is to liaise with your local tax office or tax credits advisory unit of Her Majesty's Revenue & Customs (HMRC).

Not surprisingly the first level of understanding is the terminology, taxation jargon if you like. The three key definitions and explanations of terms you need to be familiar with are:

1 What counts as R&D?

Activities that seek to achieve an advance in science or technology with activities that directly contribute to the resolution of scientific or technological uncertainty.

2 Seek to achieve

This means exactly the same as "trying to resolve". By implication you only have to be seeking the advance and trying to resolve. You may not be successful, but failure is acceptable in terms of qualifying R&D expenditure.

3 "Qualifying" R&D

Qualifying refers to complying with or meeting the requirements of the rules which govern R&D tax relief.

These and other terms are explained in more detail with examples later in the more detailed chapters.

2 Introduction

Historically, UK spending on R&D, as a proportion of gross domestic product, has been somewhat lower than in other countries and the Government, as part of its agenda to build a modern knowledge-based economy and improve productivity, wished to increase the amount spent by companies on R&D. As a result, it introduced two reliefs for companies for expenditure on R&D, one for large companies and the other for companies that are small or medium sized (SMEs). These reliefs give companies carrying out R&D the potential opportunity for significant tax savings but do need to be claimed within two years of the end of the accounting period in which the expenditure was incurred.

Table 1 *Size thresholds for a company to meet the definition of a small or medium-sized enterprise (SME) for R&D tax relief purposes*

Size limits: a company is an SME if it meets the employee test plus either the turnover test or the gross assets test		
	Up to 31 July 2008	From 1 August 2008
Full time employee equivalent	<250	<500
Turnover	≤€50m	≤€100m
Gross assets	≤€43m	≤€86m

Corporation tax rates			
	Year to 31 March 2008	From 1 April 2008	From 1 April 2011
Small companies rate	20%	21%	21%
Standard rate	30%	28%	27%

Note:

The government has announced further reductions in the standard rate of corporation tax to 26% from 1 April 2012, 25% from 1 April 2013, and 24% from 1 April 2014. These changes are yet to be enacted in legislation.

With rapid changes in building and other regulations and with the constant demand for greater efficiencies and higher performance, construction businesses have to continually devise innovative and specialised products and processes.

This continual innovation often involves research and/or development to provide new products, along with new and upgraded production facilities and installation processes. The R&D tax reliefs provide a valuable financial benefit mitigating the cost of this research and development and reducing the effective tax rate.

Eligibility for relief hinges on the nature of the activities carried out by a company. Qualifying activities could include proof of concept studies, field trials, prototype development, testing, pilot build and development of production processes. In summary, if a company needs to make a change to its products or processes and there is an element of technical uncertainty to overcome, they may qualify for R&D tax relief.

Potential benefit

The incentive introduced for revenue expenditure⁽¹⁾ works by reducing the amount of a company's profit that is chargeable to corporation tax and therefore reducing the company's tax bill. Loss making SMEs also have the option of surrendering their loss in return for a cash sum. The net tax benefit provided to SMEs is approximately 15.8% of eligible expenditure whereas that provided to large companies is approximately 8.4%.

Table 2 *Potential benefit from making R&D tax relief claims*

	SME	Large company
Eligible R&D expenditure (tax deductible)	£1m	£1m
Additional tax deduction (ie reduction in taxable profits) provided under the R&D tax relief scheme	£750,000 (75% of eligible expenditure)	£300,000 (30% of eligible expenditure)
Additional reduction in tax charge	£157,500 (assuming small companies' rate of 21%)	£84,000 (assuming standard tax rate of 28%)

(1) Capital Expenditure

There is also a capital expenditure scheme for both SMEs and large companies, known as R&D Allowances or "RDAs" (previously these were called Scientific Research Allowances). This allows for an immediate 100% tax allowance for qualifying capital R&D spend. RDAs may provide an immediate cash-flow benefit compared to the usual 20% reducing balance basis of tax depreciation under the capital allowances regime and they could apply to some capital expenditure on which no other tax relief would otherwise be available.

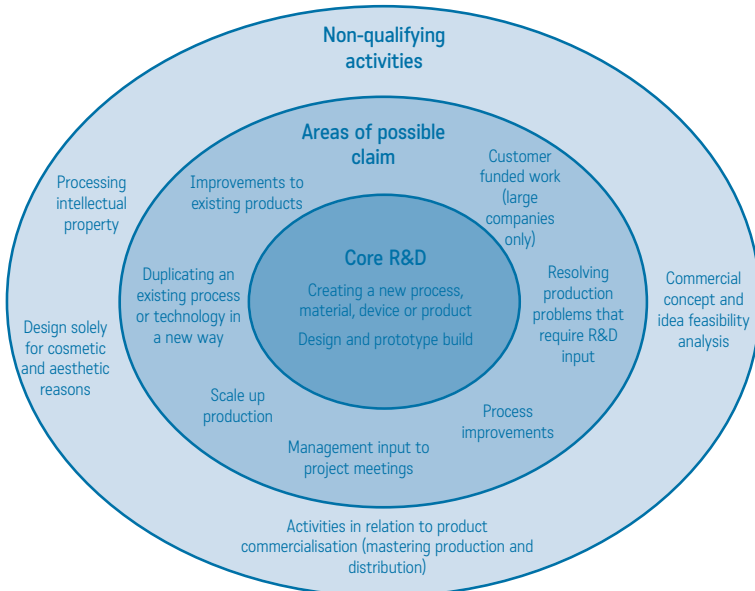
Please see Section 4 for further detail in relation to how the tax saving is calculated, and how an SME can surrender losses in return for a cash sum.

Qualifying activities

It is a common misconception that a company must engage in laboratory-based scientific research to qualify for R&D tax relief. However R&D tax relief is being claimed by companies in almost every industry sector and there is a much wider scope of activities that may be eligible – including work on enhancing existing products and processes.

Many companies are not making the most of these potential cost savings, primarily because they do not realise the extent of HMRC’s definition of “R&D” and are put off by the perceived complexities of making a claim.

The diagram below can be used to consider a company’s range of activities and brainstorm those that could potentially include some qualifying R&D expenditure.



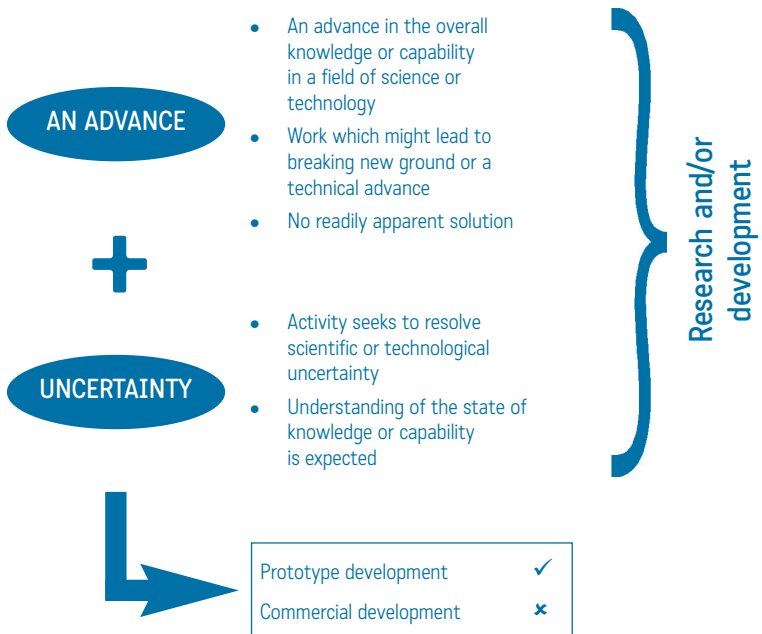
3 What is qualifying R&D?

Outlined below is an overview of the definition of qualifying R&D activities. The definition is wide-ranging and sometimes challenging to apply in practice. HMRC and the Department for Business, Enterprise and Regulatory Reform (BERR) have issued guidelines to help companies identify their eligible activity. If it appears your company may be undertaking R&D, we encourage you to seek further information.

It is not always clear whether an activity is R&D

For tax purposes R&D takes place “when a project seeks to achieve an advance in science or technology with activities that directly contribute to the resolution of scientific or technological uncertainty”.

R&D is characterised by:



Overall intention to achieve **AN ADVANCE** in science or technology

- must be in the field of science or technology.
- there must be an intention to achieve an advance in overall knowledge or capability.

Overall knowledge or capability means that which is publicly available or readily deducible by a competent professional working in the field. Work which seeks to advance this is potentially R&D.

Two companies, working independently of each other, seek to resolve a technical uncertainty. Both companies are entitled to claim R&D tax relief for the qualifying expenditure incurred.

Application to Buildoffsite members

Application of known processes but in circumstances peculiar to a specific site may not result in an increase in overall knowledge. However, overcoming specific site issues may lead to knowledge of a technique or process of wider application and therefore the related expenditure may qualify for R&D tax relief.

Unfortunately, work on aesthetics alone doesn't qualify. For example, using well understood construction techniques and known materials but to a novel design which is aesthetically groundbreaking will not qualify unless doing this entails resolving technical issues that advance knowledge in the field.

Innovative design often involves a combination of aesthetic and technical advances, for example, a landmark bridge design may also require novel engineering solutions to damp unwanted oscillations caused by traffic. Companies may lose benefits if they assume projects only address aesthetics when in fact a lot of R&D is involved.

Resolution of scientific or technological **UNCERTAINTY**

Uncertainty exists where achieving the advance is not readily available/deducible to/by the competent professional working in the field.

- “Uncertainty” includes uncertainty arising from the interaction of components even if the components in isolation are readily understood.
- Routine assembly of a number of components or the combination of technologies will not be uncertain if the competent professional working in the field could readily deduce how the separate components should be combined.
- Improvements, optimisations and fine-tuning that do not materially affect the underlying science or technology are not resolution of scientific or technological uncertainty.

Directly contributing activities

To directly contribute, the activity must attempt to resolve an element of the scientific or technological uncertainty.

Examples of activities which do directly contribute:

- Creating/adapting materials or equipment needed to resolve the uncertainty, providing it is created or adapted solely for use in R&D.
- Scientific/technological planning activities, design, testing and analysis to resolve the uncertainty.

Application to Buildoffsite members

Qualifying research and development may be found in various projects such as those seeking to:

- Increase industry standards with respect to productivity output;
- Develop or work with new sustainable materials; and/or

- Overcome technical uncertainties associated with undertaking construction on contaminated or environmentally sensitive land.

Where in a company is qualifying R&D to be found?

A company may need to look at expenditure in areas other than the R&D department and many construction companies will not have an R&D department at all. To attempt to identify all of the qualifying R&D projects in a company it is necessary to also consider:

1 R&D in customer projects

Development work may not be separate from the construction work. New products or processes may ultimately only be tested “in the field” as part of the construction process. The staff and material costs for the testing should qualify as R&D; however, if these costs are booked to projects for customers the qualifying expenditure is easily missed.

In addition, such “on the job” R&D may be difficult to quantify. It can be hard to identify at which point the uncertainty around the new product or process has been resolved when the same product or process is used throughout the construction. It is all too easy to claim nothing or too little for this work. In this situation it is necessary to talk to the “competent professionals”, ie the project managers, and where necessary take specific tax advice.

Certain types of construction do not allow the opportunity for use of prototypes or scale models. All R&D has to be undertaken during the construction. The issue when claiming R&D tax relief is identifying the technological uncertainties and identifying at what stage in the construction process those technological uncertainties are resolved. Prior to this point the expenditure should qualify for R&D tax relief.

2 R&D in manufacturing

“Production activity”, ie the manufacture, or attempted manufacture, of goods, or the delivery or attempted delivery of services for customers, does not qualify for R&D tax relief. However some related activities undertaken alongside or around

production activity, for example where a production process is being improved, may qualify for relief.

Manufacturing or production departments often make process changes designed to improve efficiency, reduce cost or speed up the cycle. All these process changes may comprise R&D but nevertheless be carried out during the production process. The costs are often booked in “costs of goods sold” and in departments not considered relevant when calculating the qualifying expenditure for an R&D tax relief claim. They are therefore often omitted.

Collecting scrap material, re-grinding it and feeding it back into the cycle as raw material may reduce costs. The cost of developing a more efficient process may qualify for R&D tax relief.

Changes to the formulation of a material may allow processes to run at lower temperatures or for shorter periods, saving energy. Developing new materials or investigating using old materials in new ways could qualify for R&D tax relief.

While it may be known that a new product can be made on a small scale, there are often technological uncertainties when it comes to making the same product on a larger scale. Many companies use pilot plants to develop the process for larger scale manufacture. This often entails research and development as the raw materials and processes change from those used in making the product on a small scale. Such additional costs may qualify for relief, and it is only the core production expenditure, ie expenditure on production labour, raw materials and components and energy that should be excluded from claims.

Don't miss out!

As stated above there are a number of areas in the construction and related industries where companies fail to identify qualifying R&D activity. As a result substantial benefits go unclaimed. In the two examples above it is likely that the costs are not classified as “R&D” by the company and instead are “lost” within manufacturing costs. These costs can be considerable and could be eligible for R&D tax relief.

4 What are the potential benefits?

As previously outlined, there are two levels of support available, depending on whether a company is considered an SME or a large company.

SME companies

R&D tax relief for SMEs was introduced by the Government in April 2000. The system was established to encourage innovation with a view to improving productivity, performance and competitiveness of the UK economy. The incentive offers the opportunity for UK companies who carry out R&D activities to reduce their tax bill. The scheme provides relief for each pound of qualifying R&D expenditure. Loss making SMEs also have the option of receiving a tax credit.

An overview of the calculations is provided below. The size limits for determining whether a company is an SME are set out in Section 2, and to determine whether a company is an SME the size of the entire group must be considered, which can be complicated if there is a complex ownership structure. There are further rules concerning when a credit is available and the value of that credit. In order to maximise your claim and minimise any associated risk, we encourage potential claimants to seek professional advice prior to lodging claims.

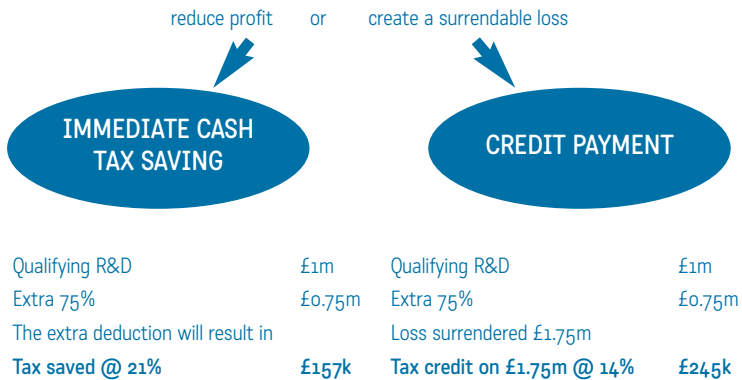
Benefit

- Qualifying expenditure on
- Qualifying R&D

Is eligible for a 175% corporate tax deduction (ie an additional deduction of 75% on top of the expenditure already charged to the company's profit and loss account) which can be used either to:

To make a claim under the SME regime the intellectual property generated in the development carried out as part of the R&D project must wholly vest in the

company and not elsewhere in the group or with a third party. Please note that there is no such condition for the large companies' regime. It was proposed as part of the Emergency Budget on 22 June 2010 that this IP ownership condition for SMEs be withdrawn for accounting periods ending after 9 December 2009. Legislation is expected to be introduced in the second of the two 2010 Finance Acts which is due to be published around September/October 2010.



Large companies

The Government extended R&D tax relief to large companies from 1 April 2002. An overview of the benefit provided under this scheme is outlined as follows:

Benefit

Expenditure post 1 April 2002 which is:

- Qualifying expenditure on
- Qualifying R&D
- Is eligible for a **130% corporate tax deduction** (ie an additional deduction of 30% on top of the expenditure already charged to the company's profit and loss account)





eg

Qualifying R&D	£1m
Extra 30%	£0.3m
The extra deduction will result in	
Tax saved @ 28%	£84k

Qualifying expenditure

Outlined below is an overview of the main categories of qualifying revenue expenditure. However, there have been many legislative changes since the incentive was first introduced and we encourage you to seek further information on the periods of qualification and differences between the SME and large company schemes prior to lodging a claim. A company is entitled to make an R&D tax relief claim for an accounting period if its qualifying expenditure exceeds £10,000 for that accounting period.

Staffing costs

The following costs qualify for staff directly involved in qualifying R&D activity:

- Salaries, wages etc.
- Employer's Class 1 NIC
- Payments to pension funds

Consumable materials

Expenditure on materials consumed as part of an R&D project, for example expenditure on materials used to build a prototype, qualify for R&D tax relief.

In addition a company can claim for water, fuel and power consumed in carrying out R&D projects. This is often calculated by apportioning a company's energy and water bills based on floor area, headcount or staff costs of the qualifying R&D area/employees.

Software used in the R&D activities also qualifies for relief.

Externally provided workers

Companies often use contractors to provide additional labour. For the purposes of R&D relief these are referred to as "externally provided workers". If the worker is provided by a company unconnected with the party making the R&D relief claim then 65% of the payment may be treated as qualifying expenditure. If, however, the worker is provided by a company connected with the party making the R&D relief claim up to 100% of the payment may qualify (alternatively the two companies can make a joint election which enables the company making the R&D claim to claim up to 100% of the payment).

Externally provided workers are workers provided by an agency. The company simply requires the agency to provide the workers, the company itself has control of them and bears the risk of them doing a bad or slow job.

Subcontracted R&D (usually SMEs only)

Payments by an SME company for R&D which it subcontracts out may qualify as expenditure for R&D tax relief purposes. For such expenditure 65% of the payment qualifies for R&D tax relief.

Large companies can only claim R&D tax relief on expenditure subcontracted to individuals, partnerships or certain qualifying bodies such as universities and hospitals (see below).

Smallco Limited is carrying out an R&D project to develop a new building process. Essential to this project is the testing of the prototype developed, however the company does not have the facilities to carry out the testing. It subcontracts the testing of the prototype to Testco Limited and pays Testco £100k. Smallco is an SME and so the payment made to Testco qualifies for R&D tax relief. The additional tax saving, assuming Smallco pays tax at 28%, is £13.6k ($£100k \times 65\% \times 75\% \times 28\%$).

Largeco Limited is carrying out a similar R&D project to develop a new building process and it also subcontracts the testing of the prototype it needs to Testco Limited. The payment made to Testco Limited does not qualify for R&D tax relief because Largeco Limited is not an SME, and the payment does not fit in to one of the categories of qualifying expenditure available to large companies.

Contributions to independent R&D bodies such as universities and hospitals

Payments made by large companies to certain qualifying bodies such as universities and hospitals may qualify for R&D relief where the payments relate to research relevant to the activities of the company making the contribution.

Qualifying indirect activities

In general a company can only claim R&D tax relief for activities that directly contribute to resolving scientific or technological uncertainty. However in a recent change to the R&D tax relief regime, companies may now claim relief for certain “qualifying indirect activities”. Such activities include maintenance, administration, training, secretarial/clerical activities, personnel, finance and payroll activities which are directly attributable to an R&D project. Where an individual spends part of their time supporting R&D employees and part of their time supporting non-R&D employees it may be appropriate to claim a proportion of that employee’s staff costs. The costs must still fall within one of the categories listed above (eg staff costs) in order to qualify.

Devco Limited carries out R&D and incurs various indirect costs. Staff costs for a secretary working wholly in the R&D department should qualify. An engineer spends 50% of his time maintaining R&D machinery and 50% of his time maintaining production machinery – 50% of the engineer’s staff costs should qualify for R&D tax relief. A property manager spends some time negotiating a lease extension for the R&D building and an appropriate proportion of that employee’s staff costs can be claimed. However the rental costs of the R&D facilities cannot be claimed since rent does not fall within a category of qualifying expenditure (staff costs, consumables etc).

5 How to approach an R&D claim

Project qualification

- You need to identify your main R&D experts, or as HMRC define them: 'competent professionals working in the field'. The R&D director and/or project managers are likely to be considered competent professionals in the field and you should leverage these experts' knowledge and involve them in the process of deciding what constitutes qualifying R&D activities. The competent professionals should also be able to assist you in articulating the R&D activities carried out so that you can prepare supporting evidence for the claims.
- You need to be able to back up these decisions with satisfactory documentation so that HMRC can be sure that its guidelines are being adhered to. For example it would be helpful to draft descriptions of the projects undertaken and the technical uncertainties they were seeking to overcome (a pro forma project write up is included in Appendix 1).
- A clear, effective methodology to support your R&D professionals in their decisions can help you develop best practice within your organization, making it easier to prepare the following years' R&D claims and ensuring that you remain compliant with legislation and HMRC guidance.

Cost quantification

- You'll want to identify as much eligible expenditure as possible but it's important to balance this with the associated administrative burden of justifying the claim.
- The methodology you use for quantifying costs should suit the form of your R&D organisation, build on your existing reporting systems and help you comply with HMRC legislation.
- Your process should be simple to operate on an ongoing basis, providing certainty for future years and ensuring a claim can be made easily within an agreed framework with HMRC.

HMRC liaison

- Liaising with HMRC is a key part of the successful claim process. You need to be confident that your claim approach is robust and communicate this effectively to HMRC.
- The claim itself should be included in the company's corporation tax computation and return, and must be submitted within two years of the end of the accounting period in which the R&D was carried out. You may wish to provide further details of the company's R&D activities to HMRC, including descriptions of the projects and scientific and technological uncertainties faced (Appendix 1), the methodology followed to calculate qualifying expenditure and a summary of the amounts claimed in each category of expenditure (Section 4) for each project.

Help is available – HMRC Specialist Units

In November 2006, HMRC established seven specialist R&D tax credit units around the country. The units are located in:

- Cambridge
- Croydon
- Leicester
- Maidstone
- Manchester
- Solent (Portsmouth)
- Cardiff (covering Wales, Scotland and Northern Ireland).

The units deal with the majority of the R&D tax credit claims. The aim of these specialist units is to improve the handling of claims by concentrating the work in a smaller number of locations staffed by specially trained officers. This has led to greater consistency from HMRC in dealing with claims and more certainty for companies making claims. The addresses of these offices can be found at:

<http://www.hmrc.gov.uk/manuals/cirdmanual/CIRD80350.htm>

In addition HMRC have published detailed guidance on claiming R&D tax relief and this can be found at:

<http://www.hmrc.gov.uk/manuals/cirdmanual/CIRD80000.htm>

Future changes to the R&D tax relief regime

The new UK coalition government announced in June 2010 that they would consult with businesses to review the taxation of intellectual property, R&D tax relief and the proposals of the Dyson Review. The Dyson Review suggested R&D incentives should be refocused on hi-tech companies, small businesses and start-ups and that the rate of relief could be increased to 200% (presumably compared to the 175% for SMEs currently) without this leading to an increased cost to the exchequer. It is therefore possible that future changes to the R&D regime could include increases in the rate of SME relief, perhaps funded by reductions in the availability of claims in certain industry sectors.

Appendix 1: Pro forma project write up

R&D Activity Summary

Name of activity/project:

Department:

Project manager:

1 Summary of R&D activity/project

This should summarise, at a high level, the activity/project, highlighting any innovative development and any new technical features.

The scientific/technological aims of the project

It is necessary to demonstrate that the aim of the project was to achieve an advance in science or technology, for example, by:

- (a) extending overall knowledge or capability in a field of science or technology; or
- (b) creating a process, material, device, product or service which incorporates or represents an increase in overall knowledge or capability in a field of science or technology; or
- (c) making an appreciable improvement to an existing process, material, device, product or service through scientific or technological changes; or
- (d) using science or technology to duplicate the effect of an existing process, material, device, product or service in a new or appreciably improved way (eg a product that has exactly the same performance characteristics as existing models, but is built in a fundamentally different manner).

2 Scientific or technological uncertainties

This should summarise the main scientific or technological uncertainties, both at the beginning of the project and any that are discovered during the project. This includes any overall system uncertainty.

Scientific or technological uncertainties exist when knowledge of whether or not the project/activity is technologically feasible, or how to achieve it in practice is not readily known by a relevant competent professional.

3 How the scientific or technological uncertainties were overcome

For each specific scientific or technological uncertainty in 2 above, please summarise the methods used by the company on how these were resolved, or attempted to be resolved

4 How does the project/activity go beyond the current state of knowledge

For this purpose the current state of knowledge is at an industry level, provided that the information is readily available. Hence if you are aware that one of your competitors have resolved the problems, you can still claim the R&D tax relief if the knowledge of how it was resolved is retained by the competitor.

5 The advance in scientific or technological knowledge or capability

Does the project/activity	Comments
(a) Extend overall knowledge or capability in a field or science or technology.	Yes/No
(b) Create a process, material, device, product or service which incorporates or represents an increase in overall knowledge or capability.	Yes/No
(c) Make an appreciative improvement to an existing process, material, device, product or service.	Yes/No
(d) Use science or technology to duplicate the effect of an existing process, material, device, product or service in a new or appreciably improved way.	Yes/No

6 Timescale

Please indicate when the project/activity began and when it is anticipated to end.

Broadly, a project/activity begins for these purposes when the scientific or technological uncertainties have been identified and ends when all those uncertainties (or any other uncertainties that arose during the project) have been resolved.



ela8 is a specialist in R&D Tax Relief for the construction industry, having helped a wide range of companies make successful claims. Many of these claims have been carried out on a contingent fee basis – dependent on success – so there is little risk in exploring the potential.

The principals of ela8 have worked solely on R&D tax relief since its inception for large companies in 2002, originally for the Deloitte R&D Tax Group. Both technology and tax experts are used within the team and full supporting documentation is produced. The aim is to minimise the impact on a client's time and answer all potential HMRC queries within the documentation. ela8 have a 100% record of successful claims and a good working relationship with HMRC.

R&D Tax Relief can provide substantial benefits to a company carrying out eligible activities. Two main regimes are currently available which can provide a benefit up to 30% of qualifying costs for an SME, or 7.2% of qualifying costs for a large company. Experience has shown that many construction companies can make a successful claim, even when they have been previously advised this is not possible. Claims may be possible even if being paid to carry out work or if loss-making and not paying tax. Historical claims can also be made, for up to two years after an accounting period has ended. Changes coming in from 1 April 2013 are likely to allow an above-the-line tax credit for large companies, for the first time allowing them to access an immediate benefit if loss making.

Patent Box is a new incentive coming in from 1 April 2013. In principle this scheme allows a reduced rate of corporation tax (currently 10%) to be levied on profits derived from patented technology, whether from product sales, royalties or internal use. The scheme applies to UK and EU patents (and a few other forms of IP), including historical ones. Introduction is being staggered: initially only 60% of the benefit will be allowed, rising to 100% in 10% yearly increments.

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Historically, UK spending on R&D, as a proportion of gross domestic product, has been somewhat lower than in other countries. As part of its agenda to build a modern knowledge-based economy and improve productivity, the Government wished to increase the amount spent by companies on R&D. As a result, it introduced two reliefs for companies for expenditure on R&D, one for large companies and the other for companies that are small or medium sized (SMEs).

This report explains in simple terms the principles of R&D tax relief (credits) but it is not a definitive guide. Any matter of taxation can have levels of complexity that require more expert knowledge so advice should be sought from taxation advisors.

There are three key definitions and explanations of terms discussed in the guide: what counts as R&D?, “seek to achieve” an advance in science or technology, and “qualifying” R&D. These and other terms are explained in more detail with examples later in the more detailed chapters.

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