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Research & Development Tax Relief in Northern Ireland

This booklet outlines how tax relief for Research & Development (R&D) works for both small and medium-sized enterprises (SMEs) and large companies.

It provides straightforward definitions and explanations of the schemes, details of qualifying costs and guidance on where you can find help and further detailed information.

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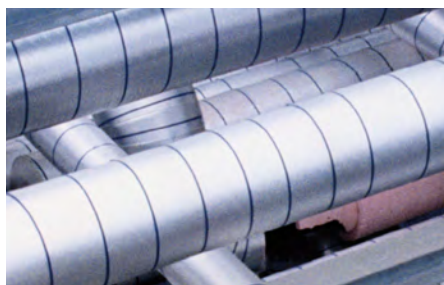
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NORTHERN IRELAND SCIENCE PARK



David Stewart OBE, Head of the Northern Ireland Corporate Tax Office, and Arlene Foster, formerly First Minister of Northern Ireland.

Foreword

Arlene Foster

Previously Minister for Enterprise, Trade & Investment and First Minister of Northern Ireland.

Forward-thinking companies recognise that investment in Research and Development (R&D) places them in a strong position to exploit future opportunities. It is very encouraging to see an increase in spend on R&D across Northern Ireland, especially by small and medium-sized enterprises (SMEs). Although our largest firms inevitably undertake much of the business R&D in our economy, our SMEs can be amongst the greatest innovators.

Northern Ireland has some outstanding R&D intensive firms across all key sectors. We must continue to build on this and make R&D an integral part of the region's business culture. Through the development of new products and processes, or the improvement of existing ones, new lucrative opportunities can be opened up that may not otherwise have been available.

Innovation is therefore crucial to Northern Ireland's growth and the Department for the Economy, working through Invest Northern Ireland and aligned with recommendations advised by MATRIX, is fully committed to helping businesses invest in R&D. Invest NI's Grant for R&D Programme now makes it much easier for companies to access the financial and advisory support offered.

Together with HMRC, we are all working collaboratively to support companies as they seek to create a prosperous economic future for Northern Ireland. I very much welcome HMRC's booklet, which is designed to help those Northern Ireland firms involved in research and development take advantage of the R&D Relief available to them.



David Stewart OBE

Head of the Northern Ireland Corporate Tax Office (NIRCTO)

I introduced this HMRC booklet as an informative guide to help Northern Ireland companies and their professional advisors in claiming R&D Relief. It summarises the main provisions of the schemes and gives guidance on where to find help and more detailed information.

The R&D Relief Scheme is a key element of national government policy and is now the largest single source of government support for business R&D. It gives companies the opportunity to recoup some of their investment on new products, processes and designs.

It has been acknowledged that, in the past, many companies of all sizes did not appreciate they qualified for the relief. I am pleased to report that an increased number of Northern Ireland businesses have benefited from the scheme and those that have claimed found the process easier than expected.

I look forward to continuing to work locally with the Department for the Economy, Invest NI, local professional bodies and companies, to further increase the level of awareness and improve take-up of the relief in Northern Ireland.





What is
R&D Relief?

For tax purposes, R&D takes place when a project seeks to achieve an advance in overall knowledge or capability in the field of science or technology.

R&D Relief allows limited companies, who carry out qualifying R&D related to their trade, to claim an extra corporation tax deduction for certain qualifying revenue expenditure.

The level of relief available depends upon which scheme the company falls into.

The SME Scheme

- From 1 April 2015, a company can get relief of 230 per cent on their qualifying R&D costs.
- Loss-making companies can in certain circumstances surrender the losses arising in return for a payable tax credit. Accounts must be prepared on a going concern basis.
- From 1 August 2008 the SME threshold limits have doubled *for R&D purposes only*.

Research and Development Expenditure Credit (RDEC) Scheme

- RDEC is a stand-alone credit to be brought into account as a receipt in calculating the profits of large companies. From 1 April 2015 a taxable credit is available at 11 per cent of qualifying R&D expenditure.
- For loss making companies the tax credit is fully payable (subject to certain restrictions).

Features of the RDEC scheme

- Companies with no corporation tax liability will benefit from RDEC either through a cash payment or a reduction of tax or other duties due.
- The payable credit is limited to the company's PAYE/NIC liabilities of the staff engaged in qualifying activities in the accounting period.
- SME's will be able to claim RDEC (including the associated payable tax credit) if they are doing subcontracted or subsidised research (including Invest NI grant funded research).
- Groups can surrender:
 - All or part of the credit to set off against another group company's Corporation Tax liability
 - The tax withheld on the payable credit to set against another group company's liability.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird89705

Why is RDEC important to SMEs?

SMEs may also claim relief under the RDEC scheme if they cannot claim under the SME Scheme because of a grant or other subsidy (see page 24), or because they are carrying out subcontract R&D for a large company (see page 21).

SME Worked Example

Profit & Loss Account	£ (000)
Sales	1000
Cost of sales	(500)
Gross Profit	500
Qualifying R&D expenditure	(100)
Other expenses	(150)
Total operating costs	(250)
Net profit before tax	250
Tax due (see below)	22.80
Profit after tax	227.20
Corporation Tax Computation	£(000)
Net profit before tax	250
Less R&D relief (additional 130%)	(130)
Adjusted profit before tax	120
Corporation Tax due at 19%	22.80
Corporation Tax Payable	22.80

RDEC Worked Example

Profit & Loss Account	£ (000)
Sales	1000
Cost of sales	(500)
Gross Profit	500
Qualifying R&D expenditure	(100)
11% RDEC on expenditure	11
Other expenses	(150)
Total operating costs	(239)
Net profit before tax	261
Tax due (see below)	49.59
Profit after tax	244.41
Corporation Tax Computation	
Net profit before tax	261
Corporation Tax due at 19%	49.59
Tax payable	
Corporation Tax due	49.59
Less tax credit	(11)
Corporation Tax payable	38.59



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird89700

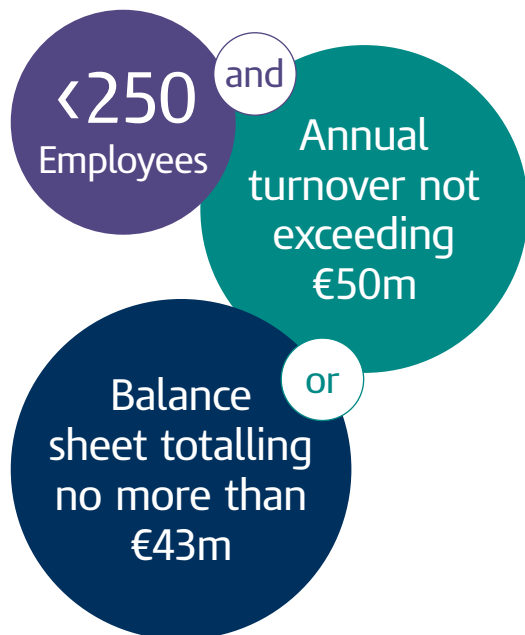
Am I small or large?

The diagram below sets out the limits for determining whether the company is a SME. A large company is any company which is not a SME.

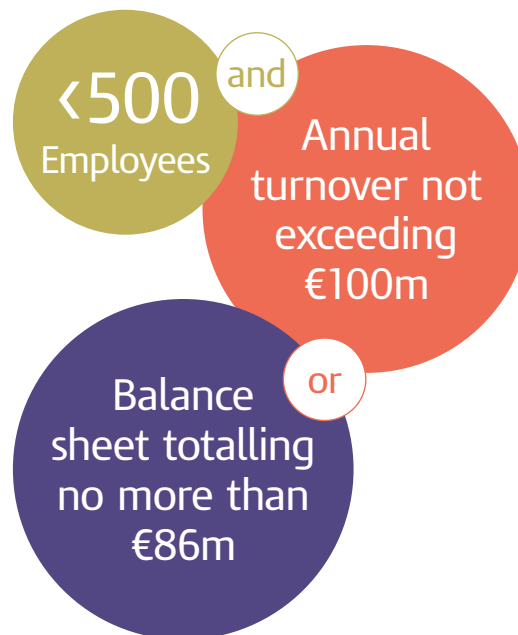
Bear in mind the test includes worldwide partner and linked enterprises. There is a handy flowchart at: www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird92850 if this applies to you.

For R&D purposes only, the Finance Act 2008 extended the SME Relief to larger companies. It introduced the concept of a 'larger SME' for expenditure incurred on or after 1 August 2008, by doubling the limits for determining if a company

SME Pre 1 August 2008



SME Post 1 August 2008





Which projects qualify?

Work that advances overall knowledge or capability in the field of science or technology, and projects and activities that help resolve scientific or technological uncertainties, may qualify for R&D Relief

Research and development has a specific statutory definition for the purposes of R&D Relief which is not the same as the commercial meaning.

To qualify for R&D Relief, the company must be carrying out research and development work in the field of science or technology. The relief is not just for 'white coat' scientific research but also for 'brown coat' development work in design and engineering that involves overcoming difficult technological problems. This can include creating new processes, products or services, making appreciable improvements to existing ones and even using science and technology to duplicate existing processes, products and services in a new way.

Some examples of other qualifying activities include software development, engineering design, new construction techniques, bio-energy, cleantech, agri-food and life and health sciences.

See also the examples for some of the local industry sectors at page 34 onwards.

Does the company's project qualify?

- R&D takes place when a project seeks to achieve an advance in science or technology.
- This advance must extend the overall knowledge or capability in the field of science or technology, not just the company's own state of knowledge or capability.
- It must involve an uncertainty that competent professionals can't readily resolve and where solutions aren't common knowledge.
- Pure product development in itself will not qualify.

- R&D work for tax relief purposes begins when work to resolve the uncertainty starts, and ends when that uncertainty is resolved or the work to resolve it ceases.

See the '[Possible commercial project time line](#)' on page 15 which helps to illustrate the qualifying and non-qualifying activities within a 'whole life' project plan.

Judging which projects and activities will qualify for R&D Relief is usually the area where most people seek help and experience has shown that companies can benefit from HMRC's early involvement.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird81900

HMRC's Advance Assurance Scheme is also available to help certain companies who haven't claimed R&D tax relief before.



For further information see page 32 and www.gov.uk/guidance/research-and-development-tax-relief-advance-assurance

In any case of doubt, it is recommended that you seek advice from **NirCTO** who will liaise with the appropriate **Incentives & Reliefs team**.

How to show that your project is R&D within the tax definition

When you submit a claim it helps if you give details of your project. The questions below will help you decide if your project is within our definition for R&D. If your claim clearly sets out how you approach these questions, it helps HMRC see that your company really is doing R&D.

1. What is the scientific or technological advance?

Concentrate on the science and technology

Rather than stating the product, process or functionality being developed, consider what scientific or technological advance is being sought. This focuses attention on the project's aim for an advance. This is important in judging whether or not R&D for tax relief purposes is being undertaken.

Some activities aren't science

Science doesn't include work in the arts, humanities and social sciences (including economics).

'Commercially innovative' isn't enough

It's not enough that a product is commercially innovative. You can't claim in respect of projects to develop innovative business products or services that don't incorporate any advance in science or technology.

2. What scientific or technological uncertainties were encountered?

Did you really encounter 'uncertainty'?

Scientific or technological uncertainty exists when knowledge of whether something is scientifically possible or technologically feasible, or how to achieve it in practice, isn't readily available or deducible by a competent professional working in the field.

Not every problem is an uncertainty

But uncertainties that can be resolved through relatively brief discussions with peers are routine uncertainties rather than technological uncertainties. Technical problems that have been overcome in previous projects on similar systems aren't likely to be technological uncertainties.

Set out what happened

In your claim, you should set out at a high level, in a way that can be understood by someone who's not an expert, what the uncertainties were and when they started and ended.

3. How and when were the uncertainties overcome?

Describe the methods used to overcome the uncertainties and the investigations and analysis undertaken. This shouldn't be in great detail, but enough to show it wasn't straightforward.

Describe the successes and failures and the impact of these on the overall project. If the uncertainties weren't overcome, explain what happened.

Remember that the commercial failure of the product or project does not mean that R&D was not present. And if the scientific uncertainties weren't overcome, that can still mean that the work to address the uncertainties can be R&D.

4. Why wasn't the knowledge being sought readily deducible by competent professionals?

Explain the uncertainty in the context of the known state of the field of research

It might be publicly known that others have tried to resolve the uncertainties and failed. Or maybe others have resolved the uncertainties, but precisely how it was done isn't in the public domain. In either case a valid technological uncertainty can still exist.

What if there's limited available information about the state of the field of research?

If there's little public information available about the project, you'll need to show that the people leading it are competent professionals working in the relevant field. This might be done by outlining their relevant background, professional qualifications and recent experience and then have them explain why they consider the uncertainties are scientific or technological uncertainties rather than routine uncertainties.

Note:

It is particularly important that the people doing the work are involved when considering whether the project is R&D for tax purposes as they are the ones who understand best the scientific or technological problems involved. Remember to focus on what advances the project is seeking to achieve and the uncertainties to be faced rather than on the eventual product aspiration, specification or design.

The start and end of a project for R&D tax purposes

It's important to know when an R&D project starts and ends, because that makes sure your company claims the right amount of relief.

When a project starts

The project starts when work to resolve the uncertainty starts. This is when you have identified the technical issues that need to be resolved, and the current state of knowledge within that field of science or technology has not provided a solution to those uncertainties.

When a project ends

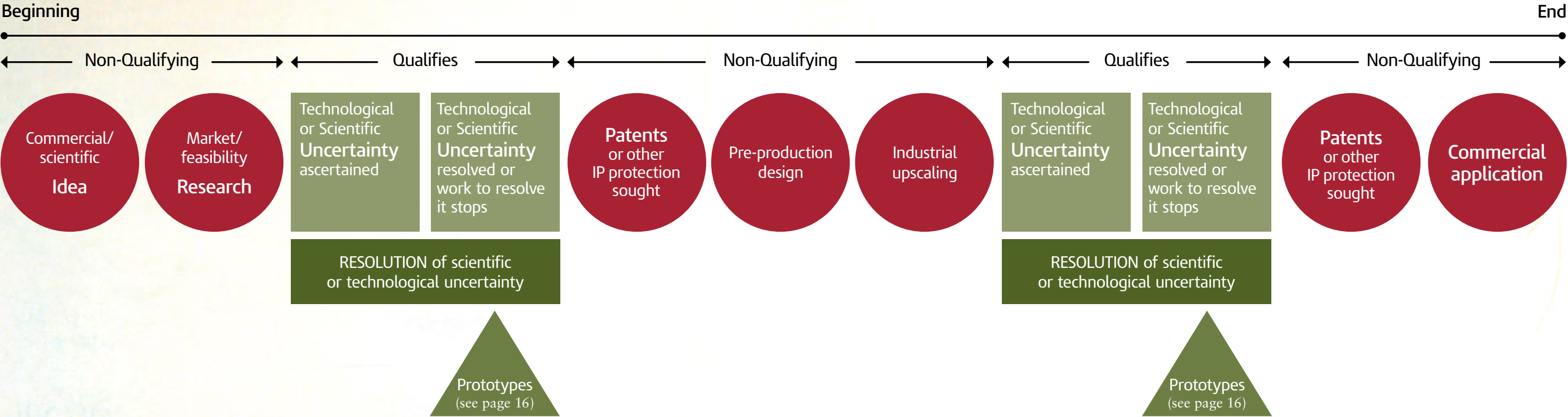
A project ends when that uncertainty is resolved or the work to resolve it ceases. This is when you have a working prototype or material device/product or process ready to be tested or go into production, or if you decide not to take the project forward.

R&D can take place even after production starts

If any new problems arise involving scientific or technological uncertainty after the product has been put into production or into use then the R&D process may start again. There is a distinction between such problems involving science and technological uncertainties and routine fault fixing or design tweaks

Possible commercial project time line - defining R&D for tax purposes

See also the Local Industry Sectors at page 34 onwards for examples of how this may apply to some of the local Northern Ireland industry sectors.



The parts of a project that require R&D activity to resolve scientific or technological uncertainties qualify for tax relief. The qualifying work starts when work to resolve the uncertainty starts, and ends when the new knowledge is codified in a usable form, or when work to resolve the uncertainty ceases.

What costs qualify?



Direct and externally provided staff, subcontracted R&D, consumables, software, trials, prototyping and independent research costs may all qualify for R&D Relief. Capital expenditure does not qualify under this scheme, nor does expenditure on the production and distribution of goods and services.

Direct R&D staff costs

You can claim for salaries, wages, class 1 NIC and pension fund contributions for staff directly and actively engaged in the R&D project. This covers employees who undertake 'hands on' R&D work and the proportion of supervisory and managerial time spent specifically directing such employees in those activities.

Support staff costs do not qualify, except when they relate to 'qualifying indirect activities' listed in the Department for Business, Energy & Industrial Strategy (formerly BIS) R&D guidelines (for example maintenance, administration or clerical staff and security work).



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird81900

You cannot claim for employment related benefits.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird83000

Externally provided R&D staff

These are the staff costs paid to an external agency for staff who are directly and actively engaged in the R&D project and as such, differ from employees and subcontractors. Relief is generally on 65 per cent of the payments made to the staff provider. Special rules apply if the company and staff provider are connected or elect to be connected.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84000

Subcontracted R&D

SME Scheme

You can generally claim for 65 per cent of the payments made to unconnected parties. The subcontracted work may be further subcontracted to any third party.

Special rules apply where the parties are connected or elect to be connected.

RDEC Scheme

R&D expenditure subcontracted to other persons is generally not allowable unless it is directly undertaken by a charity, higher education institute, scientific research organisation or health service body - or by an individual or a partnership of individuals.

See page 21 for more detailed information on subcontracted R&D and www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84250 for the meaning of subcontracted activities.

Consumable items

You can claim for the cost of items that are directly employed and consumed in qualifying R&D projects. These include materials and the proportion of water, fuel and power consumed in the R&D process.

From 1 April 2015, the costs of materials incorporated in products that are sold are not eligible for relief.

They exclude telephone, rent and rates as they are not consumed.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird82300

Software directly used in the R&D

You may claim for the cost of software that is directly employed in the R&D activity. Where software is only partly employed in direct R&D, an appropriate apportionment should be made.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird82500

Clinical trial volunteers

Pharmaceutical companies and research organisations often make payments to volunteers taking part in clinical trials. Payments made for participating in trials can qualify for R&D Relief but read the guidance first.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84400

Contributions to independent research

Only large companies may claim R&D Relief on contributions they make towards funding relevant independent R&D. This R&D must be carried on by the recipient and be related to the company's trade. Contributions must be made to a qualifying body - a charity, higher education institute, scientific research organisation or health service body - or to an individual or a partnership of individuals.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird82200 and www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird82250

Prototypes

Where a prototype is created to test the R&D being undertaken, the design, construction and testing costs will normally be qualifying expenses.

However, if the prototype is also built with a view to selling the prototype itself (such as the construction of a bespoke machine), HMRC considers that activity to be one of production and outside the R&D scheme, even if R&D was undertaken to create the prototype. It is then necessary to determine the expenditure incurred on the R&D and that on production. For example, the construction costs and materials consumed would not be qualifying expenses, but design, modelling and testing costs could still qualify.

In any case of doubt, it is recommended that you seek advice from **NIRCTO** who will liaise with the appropriate **Incentives & Reliefs team**.

Collaborative working

In general, where two companies collaborate on an R&D project, each can claim relief on the qualifying costs they have incurred.

Where a company and a university or other research institute collaborate, only the company can claim relief on the qualifying costs it has incurred.

Such collaborative arrangements are governed by the respective contracts and it is recommended you seek advice from the **Incentives & Reliefs team** in any case of doubt.

A SME Scheme worked example

Costs	Allowable	Qualifying Expenditure
R&D staff costs £150,000 with 80% of time directly on R&D	$£150,000 \times 80\%$ allowable as staff costs	£120,000
R&D Manager's costs £100,000 with 20% of time directly managing the R&D	$£100,000 \times 20\%$ allowable as staff costs	£20,000
Heat and light £5000 with 25% consumed in R&D project	$£5,000 \times 25\%$ as consumable items	£1,250
Disposable laboratory equipment consumed £200	£200 as consumable items	£200
£80,000 payments to an unconnected subcontractor for specific R&D work	65% of payments allowable as subcontracted R&D	$£80,000 \times 65\% = £52,000$
£70,000 payments to unconnected staff provider for staff directly engaged on R&D	65% allowable as an externally provided worker	$£70,000 \times 65\% = £45,500$
Total qualifying expenditure (already included in accounts)		£238,950

What costs don't qualify?

Not all costs qualify and you cannot receive R&D Relief for:

- Capital expenditure under either of the R&D Relief schemes. However a generous 100 per cent Research & Development Allowance may be due on capital assets such as plant, machinery and buildings used for R&D activity.



Further information can be found at www.gov.uk/hmrc-internal-manuals/capital-allowances-manual/ca60000

- The production and distribution of goods and services.
- Payments for the use and creation of patents and trademarks, as these are the costs of protecting the completed R&D. This also includes the staff costs in relation to the time spent by staff on the preparation and submission of such applications.

However, the Patent Box enables companies to apply a 10 per cent rate of Corporation Tax to profits earned from their patented inventions.



Further information can be found at www.gov.uk/guidance/corporation-tax-the-patent-box

- The cost of land.

Subcontracted R&D



SMEs who subcontract qualifying R&D activities can claim tax relief on 65 per cent of the payment to the subcontractor. SMEs undertaking qualifying R&D for large enterprises may claim under the RDEC scheme.

You as the contractor

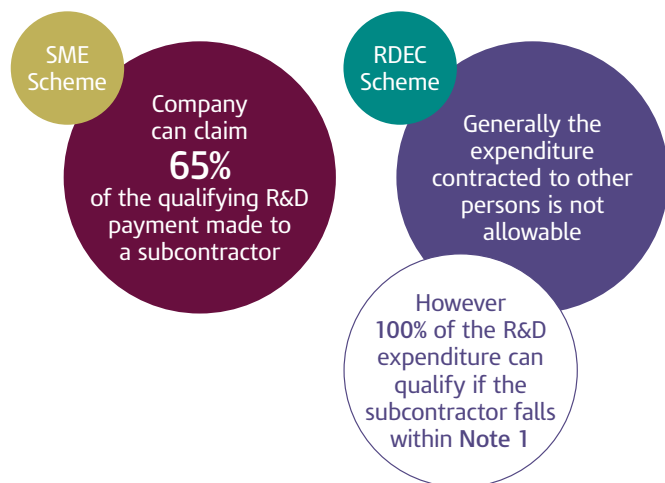
Under the SME Scheme the subcontractor does not need to be a UK resident and there is no requirement for the subcontracted R&D to be performed in the UK.

There are special rules where the parties are connected or elect to be connected. The diagrams below help explain what you may claim.



Further guidance can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84200

Unconnected Subcontractors



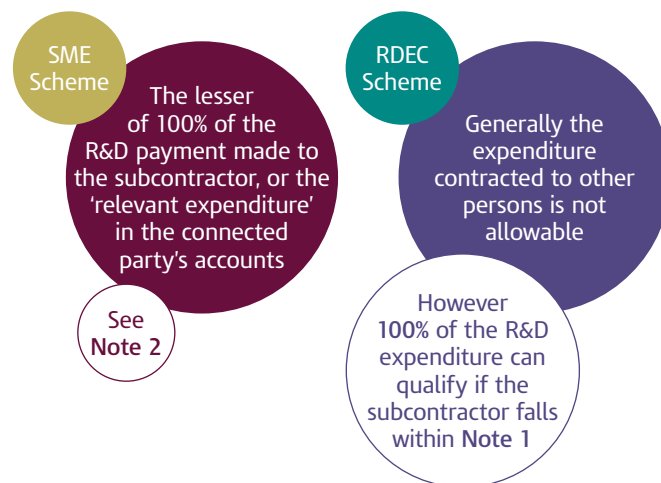
Note 1

An individual, a partnership made up wholly of individuals, or a qualifying body.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird82250

Connected Subcontractors



Note 2



The definitive rules can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84200

You as the subcontractor

Generally, if a SME or large company carries out an R&D project under contract to a large company, or person not chargeable to tax in the UK as a trade, profession or vocation, they are likely to be able to make a claim under the RDEC scheme.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird81470

If you are unsure how either of these rules may affect your company or client, contact the **Northern Ireland Corporate Tax Office (NlrCTO)** who will liaise with the appropriate **Incentives & Reliefs team**.

Subcontracting – who can make a claim?

Contracting company	Relief	Subcontractor	Relief
SME	Yes	SME	No
SME	Yes	Large company	No
SME	Yes	Qualifying body, individual or partnership	No
Large company	No	SME (even if the SME further subcontracts to qualifying body individual or partnership)	Yes (under RDEC scheme)
Large company	No	Large company	Yes
Large company	Yes	Qualifying body, individual or partnership	No
Large company	No	Another group company	Yes



The treatment of grants and other subsidies

The treatment of any R&D grants or subsidies you receive will depend on their EC notification status.

Your grant provider will be able to tell you whether or not the grant/subsidy is a notified state aid. It is the company's responsibility to ensure it does not exceed either the de minimis limits of €200k in a 3 year period, or the overall state aid intensity levels. Some grants, such as De Minimis aid and Horizon 2020 funding, are not treated as notified State aids. However it is possible to claim both R&D Tax Relief and an R&D grant on the same project.

Details of Invest NI's Grant for R&D programme are given at page 26.

The SME Scheme

• If the grant is a 'notified state aid'

As the SME Scheme is itself a notified state aid, none of the R&D costs will qualify under the SME Scheme. However the company may still be able to claim relief for the project with 11 per cent credit under the RDEC scheme on the *gross* allowable expenditure.

• If the grant is not a 'notified state aid'

The grant should be deducted from the SME qualifying expenditure and relief is due on the *net* costs under the SME Scheme at 230 per cent. The costs excluded by the grant may also qualify for relief with 11 per cent credit under the RDEC scheme.

Examples

Grant is a notified state aid	
Qualifying R&D costs	£100,000
Less grant or subsidy	£40,000
Net cost of project	£60,000
No claim under SME Scheme but can claim under RDEC Scheme	
RDEC Credit (against CT payable) £100,000 @ 11%	£11,000
Tax saved	
RDEC credit (against CT payable)	£11,000

Grant is not a notified state aid

Qualifying R&D costs	£100,000
Less grant or subsidy	£40,000
Net cost of project	£60,000
Claim under both SME and RDEC Schemes	
SME Scheme R&D Relief £60,000 additional @ 130%	£78,000
<i>Plus</i>	
RDEC Credit £40,000 @ 11%	£4,400
Tax saved (using 19% tax rate)	
Enhanced expenditure £78,000 @ 19%	£14,820
<i>Plus</i>	
RDEC credit (against CT payable)	£4,400

If your company has a number of projects you may make RDEC claims for projects that have had State Aid, and SME claims for non-grant funded project(s).

The RDEC Scheme

Grants are not deducted from the qualifying expenditure and the R&D claim can be made on the *gross* allowable expenditure.

Qualifying R&D costs	£100,000
Less grant or subsidy	£40,000
Net cost of project	£60,000
RDEC Credit (against CT payable)	
£100,000 @ 11%	£11,000

N.B. The grant receipts are taxable under the normal capital/revenue taxing provisions.

Invest NI Headquarters, Belfast



Invest NI – Grant for R&D

An overview

The Grant for R&D programme supports company innovation in services, products and processes. It is open to existing and potential Invest NI clients that are manufacturing and/or engaged in internationally traded services.

Support is offered in two stages:

1 Project Definition

Project Definition assistance helps you to plan and clearly define your R&D project. The maximum level of funding available ranges from 50 per cent to 70 per cent of eligible costs depending on the size of your business. Up to £50,000 of support is available for this stage.

A Project Definition may also be beneficial if planning projects seeking EU Horizon 2020 or national collaborative funding e.g. up to £15,000 of support is available for this planning.

2 Grant for R&D

If you have already defined your project and can meet the selection criteria, your business can access the Grant for R&D without undertaking the Project Definition stage. The maximum level of funding available ranges from 25 per cent to 70 per cent of eligible costs depending on the type of project, the size of your business and the business need.

Additional support available

New to R&D?

If your business is new to R&D (has not received R&D support from Invest NI in the last five years) and has fewer than 50 employees, a higher rate of support may be available under de minimis aid. You could be eligible for support of up to 75 per cent of eligible project costs - up to a maximum grant of £50,000 - to help your business undertake an R&D project for the first time. This support is also available for entrepreneurs who want to establish new and innovative businesses with the potential to export to international markets. Note that de minimis support is not a notified state aid.

Collaborating?

The Grant for R&D provides extra support for businesses wishing to collaborate. Collaborative projects build on effective partnerships between industry, academia and research bodies to promote research that can be commercialised. Collaboration also allows smaller businesses to develop innovative technologies without having to invest in large R&D departments.

If you want your business to collaborate with universities, research bodies or other businesses, you may be eligible for additional support of up to 15 per cent.



Further information can be found at www.investni.com/randd.



Invest NI's programmes for Innovation and Entrepreneurship are part financed by the European Regional Development Fund under the Investment for Growth and Jobs Programme 2014-2020.



How to claim R&D Relief

To claim R&D Relief, include qualifying expenditure on your Company Tax Return and you'll benefit on the usual Corporation Tax payment date for the period.

Making a claim

You can claim R&D Relief by entering the total qualifying expenditure on the full Company Tax Return form, CT600.

Receiving the relief

The company will benefit on its usual Corporation Tax payment date for the accounting period.

Payable Tax Credit

Under the SME Scheme, SMEs who prepare their accounts on a going concern basis, may be able to claim a payable tax credit - up to 14.5 per cent of the R&D loss surrendered.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird90500

Back dated claims

If your company has been undertaking qualifying R&D and has not yet claimed R&D Relief, you may make a back dated claim within the anniversary of your filing date - generally two years after the end of the accounting period.

What records should the company keep?

There is no additional record keeping requirement specifically for the purposes of claiming R&D Relief. However you should be able to give a summary of the R&D project undertaken and explain why you think the project is R&D within the tax relief definition. It is important to focus on what advances the company was seeking and the uncertainties faced rather than just a description of the finished product. See pages 12-13.

You should also include a breakdown of the expenses that qualify for relief.

Help and information

If you are unsure about any aspect of R&D Relief or want practical advice or guidance with your claim, you can get additional help and information from your local point of contact, the Northern Ireland Corporate Tax Office (NIRCTO) who will liaise with the appropriate Incentives & Reliefs team.

Northern Ireland Corporate Tax Office (NIRCTO)

Custom House
Custom House Square
Belfast
BT1 3ET

Email: **david.r.stewart@hmrc.gsi.gov.uk**
Telephone: **03000 599 000** or **03000 599 001**
Fax: **03000 511215**



Further information can be found at www.gov.uk/northern-ireland-corporate-tax-office-nircto

HMRC Tax Incentives & Reliefs Teams

Email: **r&d.incentives&reliefs@hmrc.gsi.gov.uk**
Telephone: **0300 123 3440**

HMRC YouTube Videos

HMRC has a number of R&D videos which give an overview of how R&D tax relief works



Further information can be found at www.gov.uk/government/collections/research-and-development-rd-tax-relief

How to calculate your claim

There are three stages to making your claim. Using the previous SME example on page 19, we explain how to take your figures and turn them into a claim.

1. Work out your allowable expenditure (Looking back to the SME example on page 19)

Your total costs	What is allowable	Total
R&D staff (x3) with total costs £150,000 and 80% time directly on R&D.	£150,000 x 80% allowable as staff costs	£120,000
R&D manager's costs £100,000 with 20% of time directly managing the R&D activity.	£100,000 x 20% allowable as staff costs	£20,000
Heat and light £5,000 with 25% consumed in R&D project	£5,000 x 25% allowable as consumable items	£1,250
Disposable laboratory equipment consumed £200	£200 allowable as consumable items	£200
£80,000 payments to an unconnected subcontractor for R&D work	£80,000 x 65% of payments allowable as subcontracted R&D work	£52,000
£70,000 payments to an unconnected staff provider for staff directly engaged on R&D.	£70,000 x 65% allowable as an externally provided worker (EPW).	£45,500
		£238,950

2. Turn the allowable expenditure into an R&D tax relief figure

Total allowable costs	£238,950
Multiply by 130%	£310,635
Add these together to get the total R&D tax relief: 'enhanced expenditure'	£549,585

3. Put the R&D tax relief into the right box on the company tax return

Now that we have worked out the R&D tax relief, this can be entered onto the company tax return CT 600.

For accounting periods that start on or after 1 April 2015, use version 3 of the company tax return.

Put an X in box 650.

Enter the enhanced expenditure figure in box 660 - in this example you would enter £549,585

Information about enhanced expenditure
 Research and Development (R&D) or creative enhanced expenditure

650 Put an 'X' in box 650 if the claim is made by a small or medium-sized enterprise (SME), including a SME subcontractor to a large company ☒

655 Put an 'X' in box 655 if the claim is made by a large company ☐

660 R&D enhanced expenditure

In this example, we've worked out that the total qualifying expenditure is £238,950.

The next thing to do is to turn this into a figure for the amount of R&D tax relief that the company wants to claim.

Claiming the payable tax credit?

If your company wants to claim a payable tax credit, there are a couple more steps to carry out before you fill in the tax return.

First you need to know how much tax you are due to pay in this period.

Second, you need to calculate the amount of the payable tax credit. In the simplest cases, this figure will be ('enhanced expenditure' x payable tax credit rate). Using 2017 rates and the example above, the payable tax credit will be:

$$£549,585 \times 14.5\% = £79,690.$$

Now you are ready to enter the figures.



Further information on calculating the payable tax credit can be found at <https://www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird90500>

Enter the company's Self Assessment figure in box 525.

Enter the tax credit figure in box 530 - in this example you would enter £79,690.

Complete box 545 - in this example, you would enter £79,690.

Complete box 570 - that's box 545 minus box 525.

Tax reconciliation

530	Research and Development credit	£	7	9	6	9	0	•	
525	(not currently used)	£						•	
540	Creative tax credit	£						•	
545	Total of Research and Development credit and creative tax credit - total box 530 to 540	£	7	9	6	9	0	•	

Put an X in box 650.

Enter the enhanced expenditure figure in box 660 - in this example you would enter £549,585.

Information about enhanced expenditure

Research and Development (R&D) or creative enhanced expenditure

650	Put an 'X' in box 650 if the claim is made by a small or medium-sized enterprise (SME), including a SME subcontractor to a large company	X
655	Put an 'X' in box 655 if the claim is made by a large company	
660	R&D enhanced expenditure	£ 549,585

Enter the payable tax credit figure at box 875 - in this example, you would enter £79,690.

Claiming the RDEC?

You need to calculate the expenditure credit due to the company. Using the 2017 rate, and for this example, it would be £238,950 x 11% = £26,285.

Enter the expenditure credit figure at box 530 - in this case, it is £26,285.

Tax reconciliation

530	Research and Development credit	£	2	6	2	8	5	•	
525	(not currently used)	£						•	
540	Creative tax credit	£						•	
545	Total of Research and Development credit and creative tax credit - total box 530 to 540	£	2	6	2	8	5	•	

Complete box 570.

Put an X in box 650, and for box 660 enter £549,585.

Complete box 880 - in this case it will be £26,285.

880	Payable Research and Development expenditure credit	£	2	6	2	8	5	•	
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Advance Assurance Scheme

HMRC introduced an Advance Assurance Scheme for companies to claim R&D tax relief in November 2015.

What are the advantages?

- You'll have an HMRC specialist to help you understand and comply with the R&D tax relief conditions.
- You will obtain certainty that your company will get R&D relief.
- This decision may help you get funding.

Who can apply?

You can apply if your company is planning to carry out, or has previously carried out R&D and:

- You haven't claimed R&D tax relief before
- Your annual turnover is £2million or less
- You have less than 50 employees

How do I apply?

Complete form CT R&D (AA) online at **www.gov.uk** or by post. When filling in your application you'll need:

- your company accounts
- your company registration documents from Companies House
- any HMRC correspondence
- previous company tax returns (not needed for new companies)
- the name of a main contact e.g. a research manager or company director with direct knowledge of the company's R&D

What happens next?

HMRC will contact you by phone to talk about your company's activities in more detail.

Once they are satisfied that your company's activities are within the rules of the scheme and you understand how the rules apply to your company, they'll send you a letter telling you their decision.

If your company is granted Advance Assurance, for the first 3 accounting periods of claiming R&D relief, HMRC will allow the claim without further enquiries.



Further information can be found at www.gov.uk/guidance/research-and-development-tax-relief-advance-assurance

Frequently asked questions

Can I claim R&D Relief and an Invest NI grant?

Yes, however the EU notification status of the Invest NI grant will affect under which R&D Scheme you can claim. Most Invest NI grants are 'notified', therefore both SMEs and large companies can claim under the RDEC scheme on the gross qualifying expenditure. See page 24 for the treatment of such grants.

How do I know if a grant is notified?

Your grant provider will be able to tell you whether or not the grant/subsidy is notified.

Can I claim patent costs?

The costs of preparing and registering a patent are not R&D - they are the costs of protecting the completed R&D.

However, the Patent Box enables companies to apply a 10% rate of Corporation Tax to profits from its patented inventions after 1 April 2013.



Further information can be found at www.gov.uk/guidance/corporation-tax-the-patent-box

What is the difference between a subcontractor and an externally provided worker?

A subcontractor is a person paid by the R&D company to carry out a specific R&D activity.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84250

An externally provided worker is an individual who provides, or is under an obligation to provide, their services personally to the R&D company under the terms of a contract between them and the staff provider. The individual will be paid by the staff provider but work under the R&D company's direction. The company pays the staff provider.



Further information can be found at www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird84100

How do I treat R&D losses?

Under the SME scheme, for expenditure incurred on or after 1 April 2014, the company may surrender the R&D loss for a payable tax credit of 14.5 per cent.

Any unsurrendered or unutilised losses under either the SME or RDEC schemes may be carried forward to be set against future year's trading profits under the normal corporation tax rules.

How long will it take to receive an R&D tax credit repayment?

The Incentives & Reliefs teams aim to deal with 95 per cent of payable tax credit claims within 28 days of receiving the claim.

By reference to some of the local Northern Ireland industry sectors, the following examples may help you to decide if your company's activities qualify for R&D Relief.

Local Industry Sectors - Agri-food



A project to develop a new feed or to grow crops that have substantially increased vitamin content, produce better or more reliable yields, are more tolerant to weather conditions and resistant to blight, would be qualifying R&D. The scientific and technological advance is in resolving the uncertainty in the creation of a new improved strain. However, work to protect this new strain with plant breeding rights does not qualify as it is regulatory, not scientific or technological activity.

Not every change advances overall knowledge and capability. Creating new Vitamin C rich confectionery simply by adding Vitamin C to the ingredients does not qualify. A competent professional could carry out the process without uncertainty in either combining the ingredients or their reaction in the body when consumed.

Creating an innovative chilled food container that provides a substantially longer shelf life than currently available, would qualify. The scientific and technological uncertainties to be addressed are in the interactions between the food, gas content and container to keep food fresh for longer. By contrast, the work in dealing with authorities to comply with extended use-by date regulations would not qualify.

Not all innovation qualifies. A project to create a food container where the innovation lies in the artistic design or presentation of the packaging to encourage prospective customer purchases, would not qualify. Any uncertainty here is in design or marketing, not in science or technology.



"The Agri-food sector is increasingly exploiting new science and technology."

Local Industry Sectors - ICT

The computer games industry provides particularly good examples of innovative projects that do meet the requirements of the R&D schemes and also examples of projects which do not. No matter how original and inventive the game story lines are, these are not scientific or technological advances. The important criteria is not what is produced but how.

A company realised that each object on a game's screen had to be programmed in respect of its interaction with all the other objects. As the game became more complex, more objects were introduced and the amount of code required rose exponentially. The solution was to programme the properties of each object. When the objects interacted, a separate code was no longer required as the inherent properties produced the outcomes.



The qualifying expenditure on developing this innovative code qualified for R&D Relief.

The ICT sector is so fast moving that further advances overtake new and ground breaking developments very quickly. What is important is that a project represents an advance at the time of development. New encryption and security techniques are being developed regularly and in many cases give rise to further advances. Even if the technique is quickly rendered redundant it will probably qualify for R&D Relief. The same applies to new search engines using new search methods.

Many advances are in the software field but advances in hardware are not unusual and will qualify for R&D Relief if they are designed to overcome a scientific or technological uncertainty. Equally, very small companies dealing in subcontracted work may qualify if the work undertaken is sufficiently innovative, even if the larger contractor's project does not qualify.



"The important criteria is not what is produced but how."

www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird81960

Local Industry Sectors - Advanced Materials

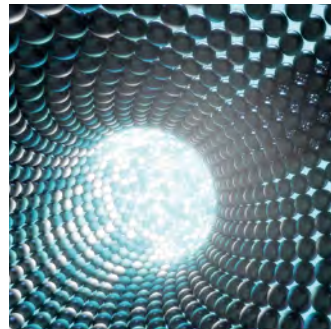


Whilst some companies specialise in the design and production of new materials, other companies find they become involved in this area as an adjunct to their main activities.

A company, specialised in agricultural engineering, used a probe to provide information on the quality of cereals which were transported in sacking. Measurements could only be taken at the top, as anywhere else would damage the sacking. This however did not produce representative samples. The company designed a material which allowed a probe to enter the sacking and which reverted to a sealed surface once the probe was removed. Although the market for this material was limited, it proved extremely successful in overseas markets. For R&D purposes the company incurred qualifying expenditure in overcoming the uncertainty in developing the material.

A further development arose when the company received orders from some Eastern European countries, where the material did not react in the required way in sub zero temperatures. The company undertook further research to amend the material to meet the requirements of the extreme conditions. The additional expenditure on manufacturing the material was not qualifying but the research costs of amending the material to meet the 'cold weather' issues again qualified.

In many projects involving advanced materials, the scientific and/or technological uncertainty can be readily identified. However, the use of 'new' materials in existing processes may also qualify if it can be shown that the outcome has or was intended to significantly improve efficiency, for example, significantly reduce waste.



"Companies find they become involved in this area as an adjunct to their main activities."

Local Industry Sectors – Advanced Engineering



R&D is increasingly providing an important competitive edge in this sector. A project is commissioned to produce a prototype (not to be sold) that will test a design for a new eco-petrol engine and exhaust. The goal is to achieve a substantial reduction in eco-unfriendly emissions with a performance at least as good as a comparable engine. This appears to competent professional engineers to offer hope of achieving a real advance by way of an improvement in vehicle technology. The uncertainty in science and technology is whether this substantial reduction with the comparable performance sought is possible. Even if unsuccessful, this and the construction of the prototype is still a qualifying R&D project.

On the other hand, an innovative in-bus eco-waste bin, where the innovation is in the attractive and appealing presentation of different compartments designed specifically to encourage the usage and promotion of recycling, does not qualify. The uncertainty of persuading people to put their litter in the bin is in the field of social science, not in the field of technology. The technology required would be obvious to a competent engineer.

A project for a new standard bus engine which is substantially lighter, cheaper, or faster to produce than any currently available or known to be possible (for example patented), whilst maintaining performance levels (for example in power, robustness and life) can all qualify as R&D. However, a minor and routine adjustment such as one to incorporate slightly better sparkplugs, already designed and used in another vehicle, would not qualify.



"R&D is increasingly providing an important competitive edge in this sector."

Local Industry Sectors - Life and Health Sciences

The creation of new drugs is an obvious example of qualifying R&D in this sector.

Creating a new drug, up to and including Phase III trials, to more effectively and safely reduce the risk of a stroke, is a qualifying project. The salaries of both the scientists and their laboratory assistants doing this hands-on R&D can qualify. However, their work to achieve important regulatory FDA approvals does not qualify, because any uncertainty in achieving these is in regulation, not science or technology.

A project to create a new artificial bladder-system for patients with urinary difficulties, substantially more comfortable, safe and leak-proof than any other designed, qualifies as R&D. The advance sought and uncertainty addressed is how to bio-engineer the materials to achieve these qualities, enabling safe insertion and avoiding rejection.

However, where a competitor reverse-engineers this product, for markets not covered by any intellectual property protection, this does not qualify. The advance in science or technology worldwide has already been overcome and the competitor's uncertainty is not an uncertainty at industry sector level, rather an uncertainty in their own state of knowledge.

A project for newly-diagnosed diabetes patients to provide details of their blood sugar etc. to the hospital via a simple internet web-form is innovative. It allows the hospital to monitor their condition in real-time and advise the patient immediately on how best to manage their condition. Although this achieves an advance in patient care, any uncertainty associated with the patient's use of the software is not an uncertainty in the technology itself. As such, this is not a qualifying R&D project. The design of the web based system would be obvious to the competent professional.



"The creation of new drugs is an obvious example of qualifying R&D in this sector."

<https://www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird81920>

Local Industry Sectors - Construction

In general this is a traditional and well-proven industry. However an increasing number of companies undertake R&D to exceed the traditional methods in terms of life expectancy of buildings, durability or robustness.

A company created a cladding system which had the appearance of 'normal' brickwork but incorporated the capacity for off-site fabrication, improved fire protection and suitability to fast-track production. Mechanical fixing rather than wet mortar provided strength and durability and the capacity to construct in all weather conditions were further elements providing significant cost savings. The uncertainty of the materials in the cladding system

and the technological uncertainties surrounding fixing were qualifying R&D projects.

Another company specialised in constructing laboratories. To combat contamination the company designed some new buildings with removable sections. Exterior walls could be slid away and a unit could be removed in total and replaced by a new unit before the exterior walls were slid back into place. The technological uncertainties surrounding the mechanisms to achieve this had to be overcome before the concept proved viable, making this a qualifying project.

A further example of innovation is a company which used wood in part of a project. Traditionally the wood needed to be of a certain age but the company was able to modify a coating so that younger and cheaper wood could be used whilst still having the required qualities. Significantly this development was a small element of an overall conventional project. Only after discussion with the site foreman did the company directors realise that the modification and application of the coating qualified for R&D Relief.



"In general this is a traditional and well-proven industry."

Northern Ireland Corporate Tax Office (NlrCTO)

Custom House, Custom House Square
Belfast BT1 3ET

Telephone: **03000 599 000** or **03000 599 001**

Fax: **03000 511215**

Web: **www.gov.uk/guidance/northern-ireland-corporate-tax-office-nircto**

Incentives & Reliefs Teams

Telephone: **0300 123 3440**

Email: **r&d.incentives&reliefs@hmrc.gsi.gov.uk**

Statutory references

R&D Legislation - Corporation Tax Act 2009, Part 13

www.legislation.gov.uk/ukpga/2009/4/contents

Corporate Intangibles Research & Development Manual (CIRD)

www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird80000

Useful websites

HM Revenue & Customs (HMRC): **www.gov.uk/government/organisations/hm-revenue-customs**

Invest Northern Ireland, Grant for R&D: **www.investni.com/randd**

Northern Ireland's online business advice service: **www.nibusinessinfo.co.uk**

Department for Business, Energy & Industrial Strategy (formerly BIS) R&D guidelines:

www.gov.uk/hmrc-internal-manuals/corporate-intangibles-research-and-development-manual/cird81900

The information in this booklet should not be seen as overriding HMRC legislation or guidance.

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