

Credit where credit's due: Improving the R&D Tax Credit



About Coadec

The Coalition for a Digital Economy (Coadec) is the policy voice of UK tech startups and scaleups in Westminster, Whitehall and Brussels.

Founded by Mike Butcher (TechCrunch) and Jeff Lynn (Seedrs) in 2010, Coadec has fought for a policy environment that helps early-stage British tech companies grow, scale and compete globally.

Coadec works across a range of priority issues for startups including access to finance, immigration and skills, and technology policy.

Aknowledgements

We're extremely grateful to the members of the startup community who have contributed to this report - either in person or via email. Ultimately this report is for and about you, We're also really appreciative of the support offered by iHorizon, who have added massively to our evidence base. Finally, huge thanks to the paper's primary author.

Summary of Recommendations

IMPROVING POLICY

1 Allow the purchase of data sets for tech development

Because data isn't classed as a consumable in the R&D process, the cost of data sets can't be claimed under R&D tax credits. But it's integral to R&D projects of many tech startups. Let's include this cost in the tax credit, and provide the incentive to innovate.

2 Allow the full inclusion of cloud services costs

Cloud services are used by the overwhelming majority of tech startups/scaleups. You can't work with large data sets, train new algorithms, or deploy sensors at scale without the cloud. But our research tells us that there is a great degree of variation in whether these costs are included or accepted in tax credit applications. We need to make sure that startups have access to the compute they need to build world-beating products and services.

3 Allow full claims for UI/UX development work

Over 80% of respondents to our survey said they undertook significant amounts of UI/UX which they considered a vital part of their R&D processes. Right now, startups aren't able to claim fully for the costs they incur building innovative solutions to the front end of their product. Tech firms won't have a product unless it's been tested properly with users; they need a clear understanding from HMRC that UI/UX work is critical R&D work, and should be included in the credit.

TACKLING BUREAUCRACY

4 Provide better feedback on claims & ensure that there is clarity in the system

What is true for all business life is true for tax credit applications: certainty is everything. Our members tell us feedback from HMRC on rejected or questioned claims is unclear. Even if the government does not take up other recommendations on qualifying activities, it would be better for everyone if HMRC could provide certainty about what it wants to see in tax credit applications.

5 Continue to develop tech expertise at HMRC to help rule on claims relevant to the sector

If R&D tax credits are to become more relevant and more effective for tech startups, HMRC's expertise will have to catch-up with the fast moving pace of our sector. We are aware that HMRC is working on this currently. The further up the agenda, the better.

6 Support the creation of new self-regulatory body to set minimum service standards in the R&D tax credit claim market

The tax credit adviser market can be a minefield for any company, but especially for startups who may be low on staff and undertaking the application for the first time. A self-regulatory body would give all actors the confidence of minimum standards of service to be accepted, and mitigate the other uncertainties of the process.

7 Proactively promote the credit scheme

Too many companies still don't know about the credit, or find it hard to find information on how to claim. Government has no reason to hide away the credit - it should be championing it.

Section 1:

The UK's R&D

Challenge

The UK typically experiences lower rates of productivity than similar international competitors: it is often said that French workers could work one fewer day a week and still produce the same amount as British workers. The most recent ONS comparison report tells us that “the UK's long-running nominal productivity gap with the other six G7 economies” was 16.3% in 2016 in output per hour worked terms, and this has been broadly stable for a few years.

Skills are one element of this productivity gap; research and development (R&D) investment is another. Successive governments have set out to improve the UK's R&D performance. One of these measures, introduced in 2000, is the R&D tax credit. Corporation tax relief offered by the government on qualifying expenditure is available to almost all companies, from behemoth pharmaceutical companies to brand new startups. While R&D tax credits are well-used and well-liked by many in the tech startup space, Coadec's discussions with founders have led us to several recommendations to make it even more useful to the sector.

The Government intends to increase the UK's R&D expenditure to 2.4% of GDP by 2027 but while progress is being made, it is slow. The latest Office for National Statistics (ONS) figures, released in March 2019, show a 4.8% increase in total R&D spending to £34.8 billion in 2017 (equivalent to around 1.7% GDP – see below), compared with a 4.3% rise in 2016 and a long term trend since 1990 of increases of 4.1% (current prices). This however, hides an important detail. Business R&D, the category most relevant to R&D tax credits, grew by 4.9%; significantly lower than the 7.5% growth of 2016, and 5% in 2015.

Measured as a percentage of total GDP, however, R&D spending has been flat. This measure has hovered at between 1.66% and 1.68% since 2014 (and within 1.6% to 1.7% since the turn of the century), topping out at 1.69% in 2017.

As with productivity, international comparisons are not flattering. Latest rankings put the UK 19th out of 36 in the OECD. According to the ONS and Eurostat, the UK's 1.69% of GDP spent on R&D ranks 11th in the EU 28, and below the EU average of 2.07%. Germany and France outspend us substantially, with Denmark and Germany actually surpassing their targets of 3% of GDP.

To reach the 2.4% target the government set itself for 2027, R&D spending needs to increase by 50%. To achieve the long-term goal of 3% and being in the top quartile of OECD countries, we will have to go even further.

The tech sector will be a critical driver of increased R&D spending. Computer programming and information service activities (excluding software development) was the third largest product group category at £1.9 billion; software development was sixth with £1.4 billion.

With tax incentives a proven way to drive R&D spending, Coadec is seeking an R&D tax credit regime more sympathetic to our industry to increase this even further, and contribute to meeting the goals of the government's industrial strategy.

Not only would an improved regime help boost domestic R&D, it would also serve as a competitive advantage for the sector in the coming years both in the European and global context – sending a strong message about the UK's ambition in the digital space and really embodying the Government's Digital Charter objective of being the best place in the world to start and grow a digital business.

1 <https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2016>

2 See COADEC's 2017 paper "A Global Britain" <http://coadec.com/Coadec-Report-A-Global-Britain.pdf>

3 <https://www.ons.gov.uk/economy/governmentpublicsectorandtaxes/researchanddevelopmentexpenditure/bulletins/ukgrossdomesticexpenditureonresearchanddevelopment/2017#the-uk-ranks-11th-of-all-eu-countries-rd-expenditure-as-a-percentage-of-gdp>

4 <https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm>

5 https://ec.europa.eu/eurostat/tgm/table.do?tab=table&plugin=1&language=en&pcode=t2020_20

6 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664563/industrial-strategy-white-paper-web-ready-version.pdf

Section 2:

The R&D tax

credit - as it is

today

The R&D tax relief scheme was introduced by government in 2000 with the stated aim of encouraging scientific and technological innovation by providing an extra corporation tax deduction for qualifying expenditure. For companies with no corporation tax liability, the scheme works as a cash payment or tax credit.

There are two routes for claiming: the SME tax credit (companies with fewer than 500 staff, and turnover of under €100 million or a balance sheet under €86 million), and the Research and Development Expenditure Credit (RDEC) for larger companies and SMEs subcontracted by larger companies. The SME tax credit allows a company to deduct an extra 130% of their qualifying costs from their yearly profit, as well as the normal 100% deduction, to make a total 230% deduction, or to claim a tax credit worth up to 14.5% of surrenderable losses. However, only 65% of any costs of subcontracting R&D work can be added to a claim.

R&D tax credit use is on an encouraging upward trend, confirmed by the most recent government figures for R&D tax credit schemes published in September 2018 . Due to the time lag associated with the possibility of up to two years being claimed retrospectively, only partial data is available for 2016-17, but recent years have shown large increases in both the number of claims and the amount claimed. £3.7 billion of support was claimed in 2015-16 – an increase of 25% from 2014-15.

Startups and R&D tax credit

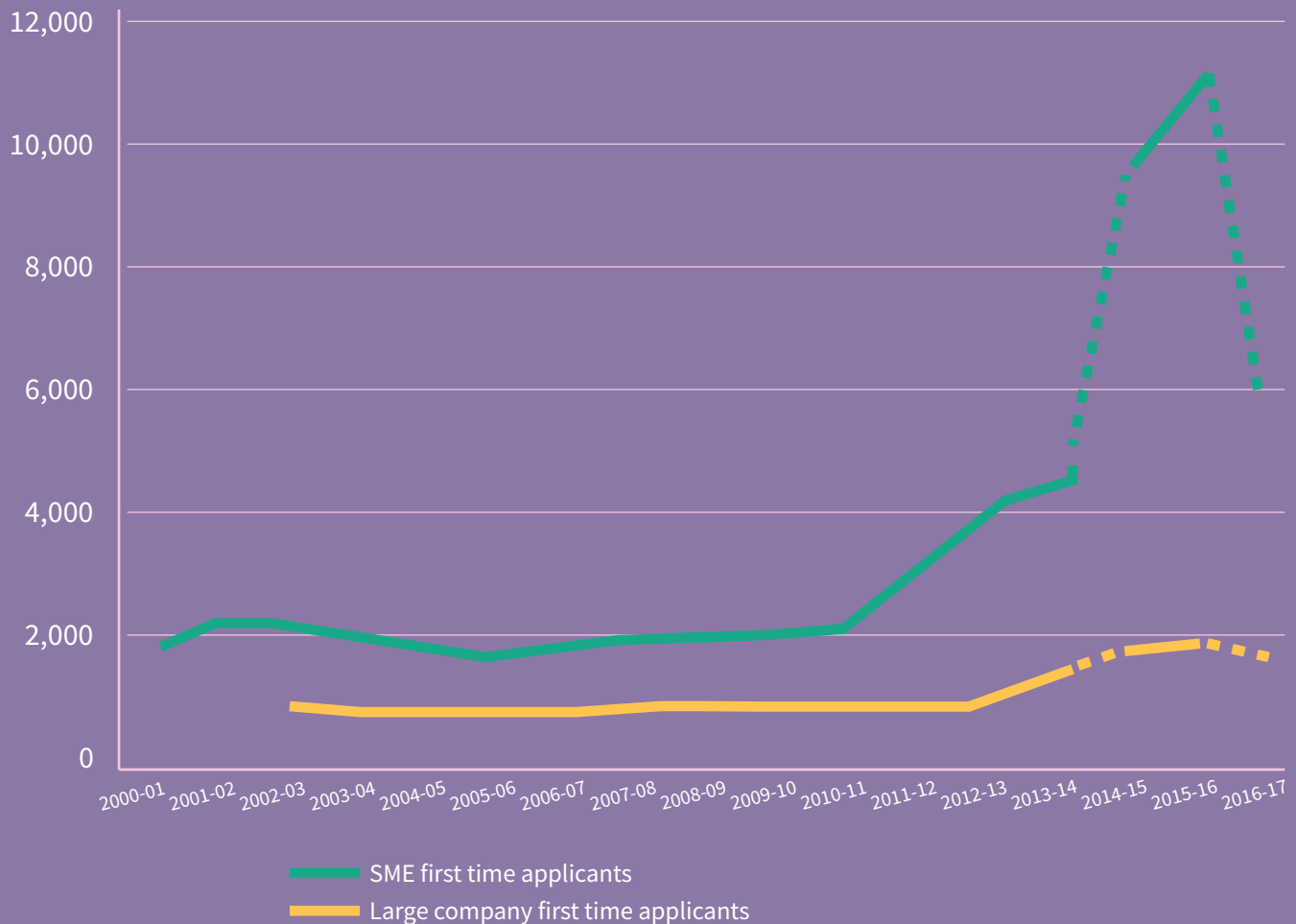
Startups overwhelmingly claim R&D tax credits under the SME route, which represented 34,060 of 39,960 claims in 2016-17. SMEs also accounted for a greater proportion of the wider increase in claims from 2014-15 to 2015-16, with the 23% increase outstripping the 17% rise in large company claims. However, the outcomes reflect the structure of the UK economy: while 73% of claims are for under £50,000, the over £2 million band represents 34% of the total amount. So far for the period 2016-17 £1.8 billion has been claimed by SMEs, and £1.6 billion by large companies. In short, tax credits are a critical driver of R&D spending for companies both large and small in the UK.

The strong growth of claims by SMEs is also reflected in the age of companies claiming relief. In 2016-17, the largest proportion (23%) of companies were 5-10 years old, with 18% under 5 years old. The number of first-time applicants has more than tripled from 2011-12 (3,090) to 2015-16 (10,930), outcomes which likely reflect the removal of the £10,000 minimum claim requirement on 1st April 2012.

Two other changes have increased the attractiveness of the scheme for SMEs. The rate of enhanced expenditure went from 100% in 2011-12 to 130% in 2015-16, and the payable tax credit rate for loss-making companies increased from 11% to 14.5% in 2014-15. These changes, along with greater general awareness, are likely to be behind the increase in the use of the scheme.

So far in 2016-17, manufacturing represents 25% of claims, information and communication 26%, professional scientific and technical 19%. Even with the shortfall in what IT companies can claim, the sector accounts for the greatest proportion of claims.

Number of first time applications, 2000-01 to 2016-17



Which activities qualify?

While making an application is not usually a prohibitively complex or costly process, the criteria for expenditure is relatively narrow. This gives rise to missed opportunities for the government to encourage what – for most tech startups – would be considered research and development, and ultimately provide the same benefits to the wider economy.

HMRC sets out the general definition of activities that may qualify for R&D relief as,

“Work that advances overall knowledge or capability in a field of science or technology, and projects and activities that help resolve scientific or technological uncertainties”.

Commercial innovation is therefore not enough, and commercial failure is no barrier to eligibility – the process matters more than the outcome. While product development itself does not qualify, if a “scientific uncertainty” is overcome, the qualifying projects may be: creating new processes, products or services; making improvements to existing processes, products or services; or using science and technology to duplicate existing processes, products and services in a new way.

The statute tells us that companies can claim for the following:

- Direct and external R&D staff costs.
- 65% of the cost of any subcontracted R&D.
- Items consumed in the R&D project, such as materials, fuel and power.
- The cost of software directly employed in the process (relevant proportions of the total software cost can be defined in the application).
- The Design and testing of prototypes, but not if the prototype is meant for sale.

This may sound like a long list, but there are many costs not claimable. Of course, those costs not associated with R&D, like production and distribution of goods and services, general capital expenditure, and the cost of land are not claimable. But even within the process of creating a new product, there are several stages that do not qualify for the R&D tax credit:

- Costs involved in the product idea.
- Market/feasibility research.
- Patents or other intellectual property protection.
- Pre-production design.
- Industrial upscaling.
- Commercial application.

Missed Opportunities

While software development can sometimes be included in a claim, the government's conception of both R&D and the technology used in R&D is outdated and therefore risks dampening growth across all sectors that use digital tools and services to drive their innovation (this is essentially all sectors). The last "Guidelines on the Meaning of Research and Development for Tax Purposes" was published in 2010, which for a fast-changing sector like tech, seems a lifetime ago. For example, contained in this guidance is a substantial case study of a company producing a new DVD player! And it's still the case that traditional manufacturing engineer photos and mentions of "white coat" and "brown coat" research dominate government guidance on R&D tax credits. This would seem to support the view that the government's conception of R&D needs updating.

In later sections, we will consider how large this shortfall is and what specifically can be done to catch more tech R&D activity.

Making the claim

Relief claims are made by filling out a CT600 tax return form. Since HMRC definitions rely on encountering scientific or technological uncertainty, a narrative has to be produced to definitively prove this, detailing methods used from start to end of the process. It must be explained that a project:

- Looked for an advance in science and technology.
- Had to overcome uncertainty.
- Tried to overcome this uncertainty.
- Couldn't be easily worked out by a professional in the field.

Clearly, what is detailed in this narrative can make a huge difference to what is accepted by HMRC as qualifying expenditure. Due to this, most small companies will contract an accountant to fill out the CT600 form. But each accountant will take a different approach to what they think they can “get away with”. The ambiguity and out-of-date nature of the legislation allow for this. Coade’s conversations have also uncovered a great deal of variation, from one inspector to another in terms of what is acceptable. In later sections, we will consider how the application process can be made easier for small companies that might be vulnerable to accounting firms charging a percentage of the claim rather than a small flat fee, or not claiming the maximum allowable. Much of this will come from further clarity in the guidance.

The government’s consultation on a cap for loss-making SMEs

A recent development has been the Government’s plan to introduce a cap on the tax credit payable to loss-making SMEs. Announced in the 2018 Budget, this went out to consultation at the end of March . The stated aim is to prevent abuse of the system by fraudulent companies claiming the tax credit although no R&D activity is being undertaken in this country. HMRC claims to have identified over £300 million of fraudulent tax credit claims in the SME scheme.

The Government’s initial proposals are to base the cap on the value of payable credits on three times a company’s PAYE and NICs liabilities in one year. Because fraudulent companies do not employ many people, or pay a significant amount of PAYE and NICs, it is said that this measure will deter abuse of the SME scheme. The proposal also includes a “threshold” beneath which the cap would not apply, so as not to affect the smallest claims from the newest companies, but this threshold has not been set and its level is one of the elements on which the Government is seeking views in its consultation. Other elements up for debate at this time are the proposal to restrict any company group to one at or over threshold claim per year, and the ability to include the PAYE and NICs payments of other group companies in the cap calculation for a submission. The consultation is essentially exploring options to reduce impact on “genuine” companies.

While a high threshold may mitigate negative effects on loss-making innovative companies, Coade is of the opinion that there is a great deal of risk involved with the government’s proposals. In several highly productive sectors, a large value of research and development is essential, but the number of people employed will be low. This is especially true in biotechnology, but can also be the case for tech startups. R&D professionals are also often not employed in-house, but outsourced for a specific project, even by companies that would potentially have enough capital to invest in the infrastructure required for the R&D activity.

Companies with an outsourcing business model would need to scale back their R&D or face becoming unviable. The very principle of the government’s proposals could therefore work against the aim of incentivising innovative R&D to get to a level of 2.4% of GDP.

7 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742661/Research_and_Development_Tax_Credits_Statistics_September_2018.pdf

8 <https://www.gov.uk/guidance/corporation-tax-research-and-development-rd-relief>

9 <https://www.gov.uk/government/publications/guidelines-on-the-meaning-of-research-and-development-for-tax-purposes>

10 <https://www.gov.uk/government/consultations/preventing-abuse-of-the-rd-tax-relief-for-smes>

Section 3:

International

Comparisons

Country	Tax deduction or credit available	Qualifying criteria
Denmark	<p>Costs of R&D activities are generally tax-deductible, at a rate of 101.5% for 2018 and 2019. This will be steadily rising to 110% for 2026.</p> <p>Tax value of losses attributable to R&D is refundable up to a maximum of DKK 25M per year, filed along with annual tax returns.</p>	<p>Payroll, subcontracting, rent, raw materials, and consumables, depreciation on the purchase or lease of R&D equipment.</p> <p>Intangible assets do not qualify.</p>
France	<p>R&D tax credit equal to 30% of the first EUR 100 million of R&D expenditure. Beyond EUR 100 million, the rate is reduced to 5%.</p>	<p>Payroll, depreciation, subcontracting.</p>
Greece	<p>Most R&D activity expenses qualify for a 130% deduction. The tax benefit can also be carried forward for five years.</p>	<p>Subscriptions to databases/e-libraries included.</p>
Japan	<p>For SMEs, tax credit of 12%-17% of total R&D expenditure up to 25% of national corporation tax liability.</p>	<p>R&D expenses include service development costs for IT, big data, AI, and similar services.</p>
Italy	<p>Incremental R&D tax credit scheme is available for 2015-2020, providing 50% tax credit on the amount of R&D spending above the average for 2012, 2013 and 2014.</p>	<p>Labour costs, depreciation of tangible assets used for R&D, and subcontracting costs.</p>
Singapore	<p>100% tax deduction on qualifying R&D cost.</p> <p>50% additional deduction for Singapore-based costs.</p> <p>Additional 150% deduction for local expenditure of staff salaries and consumables, which would bring the total deduction to 250%.</p>	<p>100% base: wages and salaries, materials, and utilities directly for R&D projects.</p> <p>Additional 50%: narrower scope of staff costs, consumables, and some other expenses. These must be domestically incurred costs.</p> <p>Capital expenditure is excluded.</p>
USA	<p>Federal tax credit up to 9.1%, and many states offer research tax credits to offset state income tax. The federal credit has a maximum value of 9.1% from tax year 2017 onwards.</p>	<p>Expenditure within the USA for internal labour, supplies used in the research process, and 65% of contract research.</p> <p>Does not include overhead and capital expenditures</p>

Section 4:

The case for

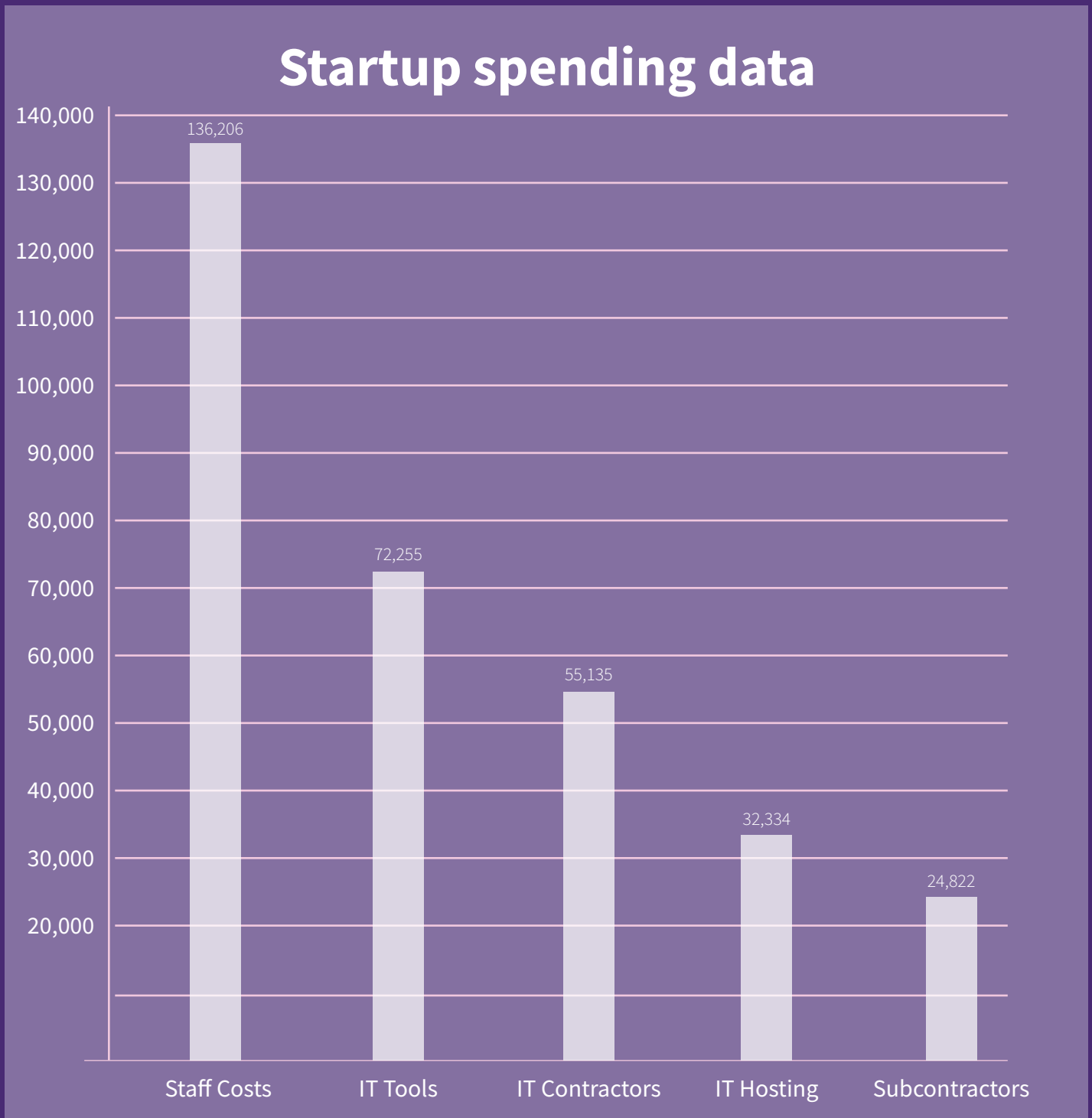
reform

Startup spending data

In order to better understand the spend of startups applying for the R&D tax credit, we analysed anonymised data from a tax accountancy firm specialising in tech startups.

The average claim value for this cohort of startup clients for this firm was £24,742, on a total average R&D cost of £83,298, the equivalent of 29.7% rebate on all qualifying R&D activities.

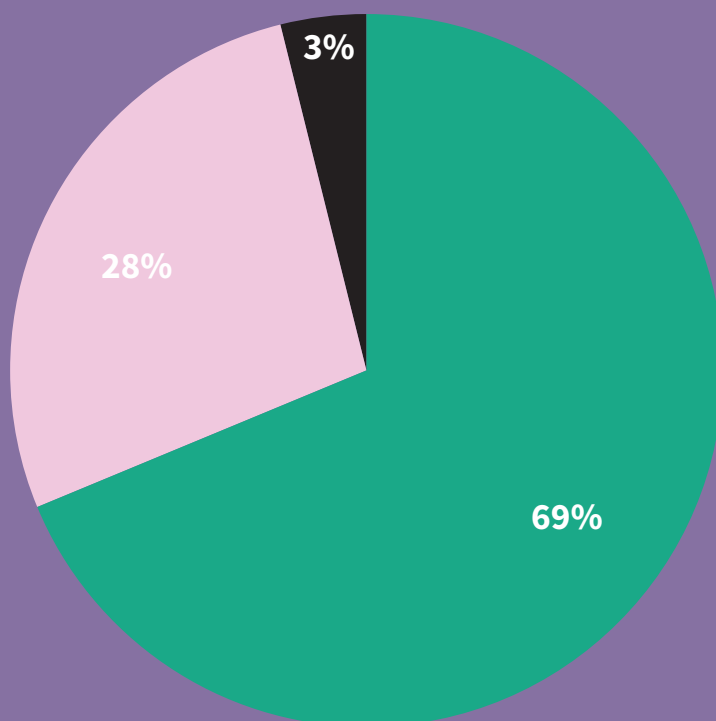
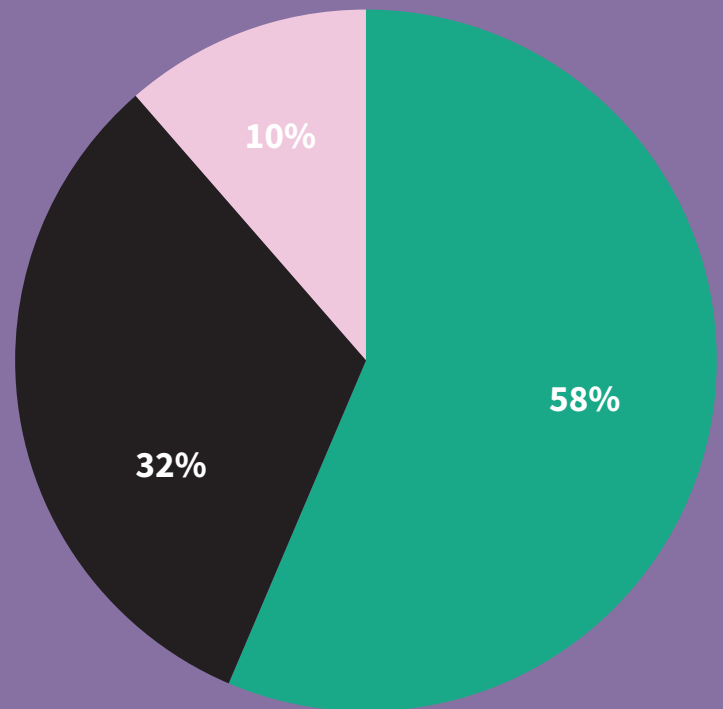
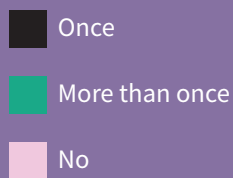
We also looked at general company costs, averaged across the cohort, for the categories for which R&D credit is claimed. IT Tools includes machine learning databases, API access, the software development platform, mobile app analytics and behavioural analytics tools. IT hosting includes web hosting, web scraping, performance and security.



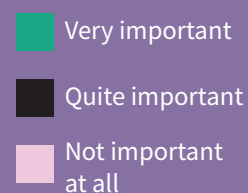
Startup survey data

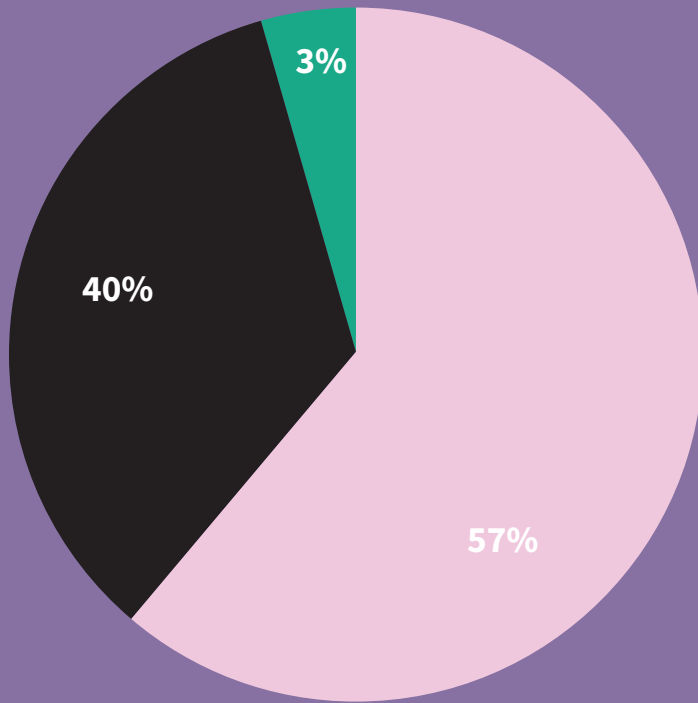
In addition to the data we have gleaned from raw submission data from startups, we have also surveyed startups in the UK on their use of the credit, this section is a mix of that quantitative data along with their own responses to key issues critical to their use of the credit and how it could be improved.

Has your firm ever applied for R&D tax credits?



If you have received R&D tax credits, how important do you think this was to your firm's early-stage survival and growth?



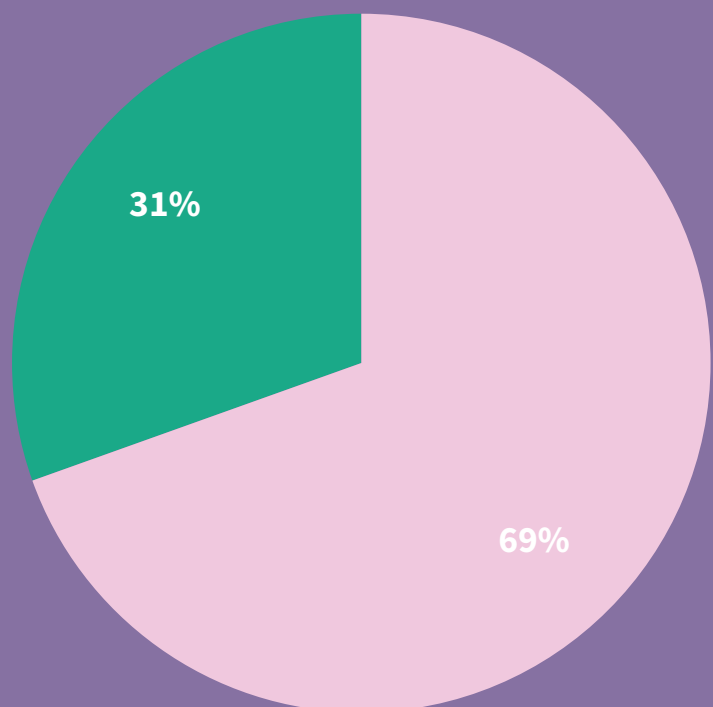


How long did the approval/response take?

- Within 28 days
- Within a week
- Over 28 days

Overall, how did you find navigating the R&D tax credit process?

- Simple
- Complex



Has your firm ever applied for R&D tax credits?

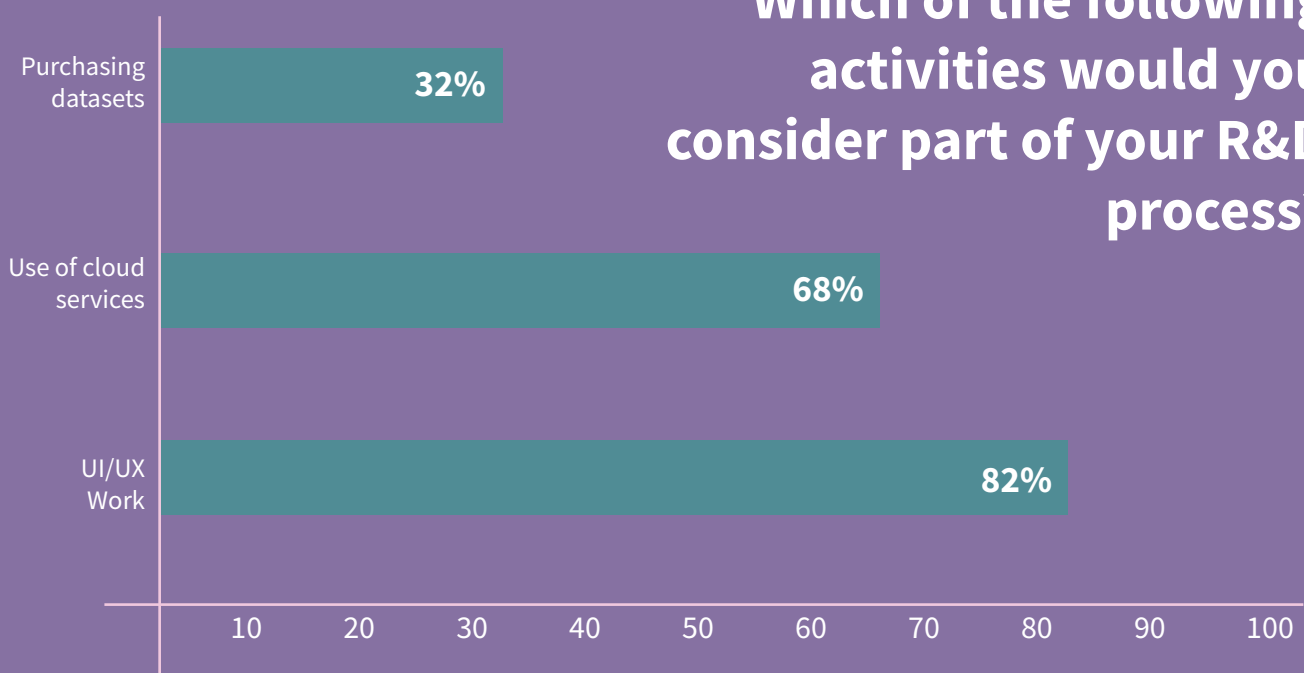
“The difficulty in knowing when HMRC might challenge a claim – the risk being that valuable time would then be taken up to explain ourselves when we were not trying to be aggressive in the first place.”

“The sheer volume of documentation.”

“Understanding and making a judgment on what we could apply the credit to, and what we could not.”

“A routine investigation that lasted a year because the inspector was changed half way through. A lack of clearer guidance as to what kind of records we'd have expected to maintain and produce in an investigation.”

Which of the following activities would you consider part of your R&D process?



Were there any key activities that you conducted as part of your company's research and development that you were unable to claim for as part of the tax credit?

“Data centre and networking costs.”

“Buying test equipment (not allowed because such devices are not ‘consumed’.”

“The vast majority. The scope of R&D is limited. A tonne of customer research was conducted that is fundamental but could not be claimed.”

“Buying data, cloud services, SAAS subscriptions, UX and UI improvements.”

“No, but we have been very conservative in what we have claimed for on the advice of the advisors we worked with.”

Startup ideas for improvement of the scheme

“Simplify the process by making all tech related work eligible as everything is R&D in the early stages.”

“Set out very simple templates and checklists so super easy. Limit middlemen taking 25% of the amount claimed back - not in the spirit of startups and they shouldn't have to pay this.”

“Simplifying the criteria for what constitutes research based innovation and allowing for more product development. An innovation that can't be launched into the market is useless for the taxpayer as well as business.”

“Clearly defined lines on what is considered aggressive and what isn't. It'd also be good to understand exactly what HMRC considers best practice so that we can follow this.”

Case studies

We spoke to a number of startups in more depth to share their existing experiences and how they used the credit, what challenges they faced in claiming and how the credit could be improved.

Case study 1: A Leeds-based data management product developer and consultancy

While R&D tax credits take longer to come through than HMRC says, they have been invaluable to the growth of this tech startup.

“R&D tax credits have been incredibly helpful to the survival and growth of our company, and we’ve claimed for the last four years. It has essentially made the difference for my partner and I being able to pay ourselves a salary in the early days, and being able to pay for contracted people instead of taking them off R&D to concentrate on the work that funds the R&D. Tax credits have made this possible by tiding us over when we had outstanding invoices from the end of the year.

In general, we think R&D tax credits should be given heavier promotion. I get the impression it’s not that well known – we only know about it because our accountants told us, but we pay a fair amount for accountancy. There should be more information, more clarity, and more encouragement from government to entrepreneurs to submit claims.

If there are any criticisms we would make of the scheme, it’s that quicker approval would help us even more with our cashflow, and that we don’t see why we can’t claim for 100% of the cost of subcontracted R&D, which accounts for a significant proportion of our total R&D. We are also aware there are wild variations in the application of the criteria. We use an accountant who we’ve been with for years and charges a flat fee, and we take a relatively cautious approach to what we claim for. But others in the market appear to be out to scam unsuspecting companies. We get several cold calls a week from firms claiming they can get us more on our R&D claim, working on a percentage cut and a no win-no fee basis. It’s the PPI of the corporate world, and an agreed industry-wide standard would hopefully drive these firms out of the market.”

Case Study 2: A London-based cyber security startup

After successful claims for a variety of critical priority areas including cloud services, this founder believes it's just a case of formalising the criteria that are already in practice – at least in some cases.

“For us it’s more or less just a case of updating what is R&D, I think the scheme has the right ambitions and I think they implement it in the right way. But the existing scheme is about patents and scientific R&D, whereas our entire startup is just one big UI/UX experiment from day one until the day we finish, and to that extent I feel we should be able to claim almost everything we do as R&D. If that makes a really successful company, that’s good for the government because it employs people, has loads of positive effects they want to encourage.

But there’s a clear distinction between what we do and what a non-tech startup would do. I do get the feeling there’s a discrepancy between the rules they say they’re going to work to, and then how they hand it out is a lot more lax. The legislation hasn’t caught up. I just think that when you’re going to submit it, you kind of get discouraged as you think that this is just for people who are in lab coats and working in factories.

While the criteria remains slightly unclear and implementation remains potentially inconsistent, then 100% I’d recommend using an accountant like we have. We do pay our accountants to do it but it’s not a massive bill, we paid £500 and the saving we made was around £5,000. I think there’s this whole industry springing up around this, but the cold callers aren’t interested in small claims like ours. If the government were to simplify and make it even less of my time, then I’d say yeah it would probably be easier to go direct, why leave any money at all with accountants...but it wasn’t long before I looked at it and knew it would soak up a lot of time doing it myself. There’s no real reason it should be this complex and at the moment it’s based on accountants having a bit more knowledge rather than being a certified expert.

Also, it’s primarily categories of spend, whereas potentially it should be more a definition of, “are you a tech startup? What are the requirements of that?” Therefore, if you are a tech startup then you qualify without any of this. So rather than looking at it as a project, why not look at it across the business? There must be ways of rewarding really early stage tech startups that don’t involve a huge amount of admin.”

Case Study 3: A London-based fintech scaleup with offices overseas

The value of tax credits to the early stage of a venture-backed (read loss-making!) tech business can't be underestimated. Conservative submissions may mean they missed out on some opportunities, however.

“We’ve been lucky in that we’ve never had any ‘push back’ on our claims, which are mainly for work undertaken by engineers. We don’t purchase data sets or use cloud services, but we do a lot of UX work - though we haven't focussed our tax credit claims on that work. We use a firm that charges a percentage fee for doing the claim, but we’re aware tax advisers have a range of interpretations, or “aggressiveness” for claims.

With such variation, It would be really good to know the success rates of each company, and I’d also be supportive of an accreditation system that let companies know a little more about the advisers looking to file claims for us.

Obviously all tax relief is welcome, but R&D tax credits is absolutely essential to a young and loss-making company. We turned profitable two years ago. Now we’re bigger, the quantum of the credit isn’t really an incentive to innovate any more, though if the rate went up it might still be. We’re also interested in ideas from other countries: in Hungary and Singapore the government contributes toward the wages of engineers at companies undertaking R&D. There’s an incentive there both to innovate and to provide job opportunities.”

What our research told us

1. Startups love the credit...but that doesn't mean it couldn't have more impact.

For months we've been discussing the credit with people across the UK's startup communities. Every single founder and company we've spoken to who use the credit has started our conversation with a caveat: 'you aren't going to suggest they get rid of it are you?'

This shows clearly, where the scheme is known and used, it is much loved, as evidenced through the substantial increase in SME claims from 2011-12 (3,090) to 2015-16 (10,930).

It's a huge boon to startup communities across the UK who have used it to drive their own R&D, and helping to cement the UK as the foremost tech hub in Europe. Almost 70% of startups we surveyed said that the credit was 'very important or quite important' for their early stage survival. Any changes to the credit have to be mindful to protect the success it is already having.

But there is still room for improvement. Startups were brimming with ideas for improving the credit in a variety of creative and interesting ways – from university-style office hours at HMRC to promotional campaigns.

2. Startups want the credit to cover what they consider R&D - at present this isn't always the case

Startups love the chance that the R&D tax credit gives them to claim back for some of the critical parts of their R&D process. But there are clearly some aspects of startup R&D that aren't covered and others where there is sufficient ambiguity that they might have one advisor advise them they can claim and one advise them they can't.

For outcomes-focused companies, the vagaries of Government policy can be frustrating and limiting. They know what drives their R&D process and they need a policy that suits them.

This showed in our startup survey. 68% of startups say that cloud services are part of their R&D process. And 82% say that UI/UX work is. But the status of these under the existing R&D tax credit is unclear (some advisors say you can claim, some say you can't).

3. Startups want the claim process to be simplified

The most valuable resource early-stage startups have is their time. And when we speak to startups they are always complaining they don't have enough of it. That's why it's so important that the credit is user-friendly and visible.

There are still too many companies who don't know about the Credit or have issues claiming it. Beyond digital firms, it's thought nearly eight in ten SMEs are likely to be eligible for R&D tax relief but remarkably, up to 55% of those aren't claiming. Among digital businesses (which number over 220,000 by the latest DCMS figures) - knowledge is higher. But we've still spoken to founders of startups who looked blankly at us when we mentioned the Credit.

And it's not just finding the information on the credit in the first place – there are challenges claiming too. 69% of startups we surveyed said they found the process of claiming the tax credit 'complex'. Realistically, most startups aren't likely to fill in the forms for themselves - but that doesn't mean they don't want to be able to.

Section 5:

Our

Recommendations

It is clear from our research that there are two ways in which startups are ill-served by the R&D tax credit in its current form. These can be categorised as either improving policy or tackling bureaucracy.

In this section, we will outline:

- the areas in which the current policy criteria for the credit don't reflect the modern startup R&D process, and how this can be brought in line with the real needs of tech startups as they turn their ideas into real products and services.**
- how the bureaucracy of the system is holding startups back, and what we should do about it.**

Improving policy

The second area in need of clear reform to ensure that startups can get the most out of the R&D tax credit is what you can actually claim for. When the credit was originally designed (and for much of its existence) research and development was thought of largely as scientific innovation. It is still vital that this groundbreaking work is covered, but it's equally important that the realities of what modern startups spend their R&D money on can be claimed under the credit.

Through all of our discussions with the community, three areas of the policy which need updating have come up time and again: data sets, cloud services & UI/UX work. All three are areas where there is some confusion about criteria, mixed messages about how to judge whether your spend can be included, and critically, a high line-item cost for startups.

We would recommend that each of these three be considered for inclusion in the credit's structure – whether as part of a reform of the existing category definitions or wholesale change. We are aware of the broader implications of these proposed changes – and we will seek to work directly with both Government and industry organisations across the spectrum to ensure that we are able to effectively manage these changes in a way that prevents any negative externalities.

Recommendation 1: Allow the purchase of data sets for tech developments

If you're an AI or machine learning based startup, training your algorithm isn't just typical R&D – you simply wouldn't have a business without it. This isn't possible without the right data sets. But under the current R&D tax credit rules, you can't claim for this R&D because the data is not a consumable.

This needs urgent reform. We know that data sets and algorithm training are a core research necessity. The data, in a very real sense, is being used and consumed. As the tech sector in the UK increasingly becomes about more complex technological innovation, the need to leverage data sets as part of the R&D process will only grow. We know that machine learning and artificial intelligence will drive future productivity globally – and right now innovative companies in that vertical are unable to leverage the R&D tax credit to drive that part of their business.

For an increasing number of startups we are working with, data sets are already crucial for this. 32% of companies in our survey said they already consider use of data sets a part of their R&D process.

The UK is particularly targeting the AI space for its future growth strategy and has built a strong AI strategy. But we risk falling behind on this issue. Other countries like Korea & Denmark are already allowing data sets to be included in their own versions of the credit. It's time we followed suit.

Recommendation 2: Allow the full inclusion of cloud services costs

There is no modern economy without the cloud. Services at scale wouldn't be possible - and the lower cost of cloud has allowed the startup boom we see today.

Cloud services are used by the overwhelming majority of tech startups/scaleups. You can't work with large data sets, or train new algorithms, or deploy sensors at scale without the magnitude of compute and storage provided for by the cloud.

Talking to startups, they see a clear correlation between the increase in cloud service usage and costs and the development process. The cloud costs are higher pre-product because they are a driving force behind the research stage of projects. The message is clear – it's a critical R&D tool for startups.

Our survey data backs this up, 68% of startups said they consider cloud services a key part of their R&D process. When you talk to companies who work on the credit - they find startups baffled that they can't claim for cloud (given its primacy and importance to their R&D).

However, in the current system, the rules are messy and unclear. We've talked to many accountants and tax advisers – and we've had many different answers to how they approach claiming for cloud services. Some will include partial costs, some won't claim at all. But startups see it much more clearly – they see the cost of cloud services as a direct R&D expense and the credit should make cloud services fully allowable. The Government should listen.

Recommendation 3: Allow full claims for UX/UI development work

82% of respondents to our survey said they undertook significant amounts of UI/UX which they considered a vital part of their R&D processes. Put simply, startups have been clear to us don't have a product unless it's been tested properly with users.

The Government knows this – they increasingly hire user researchers and other similar staff for their own policy development processes. Indeed, the Government Digital Service has long been at the forefront of change in public service provision precisely because of this approach – grounded in user research and UI/UX work.

Right now, startups aren't able to claim fully for the costs they incur building these innovative solutions to the front end of their product. Again, there are mixed messages. Some firms who support startups in filing claims will include some staff costs as a secondary R&D expense, others won't include these costs at all.

What startups need is a clear understanding that UI/UX work is critical R&D work, and so should be included in the credit. The criteria should reflect the importance of this work to the growth of the sector.

Tackling Bureaucracy

In both qualitative and quantitative evidence, it is clear that startups struggle to manage the administrative side of claiming the R&D tax credit.

In an ideal world, startups would file their own R&D tax credit claims. But based on the feedback we got from startups around the country, the reality remains that many are not able to.

In principle, the vast majority of those startups would be willing to file the paperwork themselves in a 'clearer and cleaner' system. We would, therefore, encourage Government to work directly with smaller companies, not just in the tech sector but across the board, to make sure that where companies wish to file their own claims, they are able to do so.

A common thread throughout our research is the scale of variation in the application of criteria to R&D claims. It can be as simple as different tax inspectors having different approaches. Above all, businesses need certainty. Similarly, we've heard of big differences between the criteria laid out in legislation and the practice. Legislation should catch up with an updated approach to tech, to provide clarity to the sector. This is a key part of our first recommendation.

Recommendation 4: HMRC should provide better feedback on claims and ensure that there is clarity in the system

Startups that have made an R&D tax credit application presently lack any clear understanding as to why their claim gets denied, or substantial feedback about any errors in their application. Several survey respondents told us the worst part of the process was the uncertainty over challenges to claims. It is critical that as HMRC undergoes huge internal upheaval as a result of the UK leaving the European Union, time and resources are devoted to providing more appropriate feedback to companies.

Key to this feedback is a true understanding of what companies are aiming to achieve through their R&D processes – and how modern tech firms operate. HMRC can't do this without the right talent and expertise.

Recommendation 5: Continue to develop tech expertise at HMRC to help rule on claims relevant to the sector

There is a gap at present between the understanding of tech and the innovative research being conducted and HMRC's process. This isn't a criticism – technology changes at such a pace, that what is considered 'innovative R&D' moves equally as fast, and we are aware that HMRC is working hard to upskill their staff and hire more "tech-savvy" inspectors. HMRC will need to continue to build a depth of talent and a high degree of technological expertise to assess claims effectively. By ensuring that experts in technology are making the rulings, tech entrepreneurs can better reap the benefits of their R&D activities and be properly encouraged to grow while preserving the integrity of the system. Progress is being made, but more is needed.

However much we change the system itself though, in practice we know that founders have better things to do with their lives than fill out Government paperwork. And many are comfortable with the idea of hiring support in filing their claim. But this doesn't mean they should be prey to unscrupulous middle-men who trade based on information asymmetry and the perception of variation in the application of criteria.

Recommendation 6: Support the creation of a new self-regulatory body to set minimum service standards in the R&D tax credit claim market

Following conversations with many companies who help support startups in making claims. We believe there is the appetite to build an organisation that would help to devise then uphold a set of core standards for the market – both to protect startups and also the integrity of advisers (from accountants to specialist R&D tax credit companies).

Standards to be considered might include a commitment to avoid binding companies into long term arrangements, a cap on the percentages of the claim return charged for services or even the abolition of the percentage based system entirely, and the banning of aggressive cold-calling style sales techniques.

Ultimately, we believe that these companies themselves are best placed to be taking the decisions on how to govern the market – there are plenty of fine people who genuinely want the best for startups and know things need to change. We also understand that there are ongoing conversations within the industry about how best to make some form of self-regulation work. But at present, among startups R&D claim specialists' reputation is poor at best and shoddy at worst. It is not in their interest or that of startups for this to continue, and it needs to be fixed. Coadec stands ready to work with other community organisations in the sector to support tax credit advisers as they consider how to tackle this critical issue.

Recommendation 7: Proactively promote the credit

There remains a significant number of companies not claiming the R&D tax credit.

Only 10,930 companies (not even digital companies) filed under the SME credit in 2015-16, compared with 220,000 digital companies by latest DCMS figures nationwide. While not every one of these companies will be producing innovative research, this clearly shows the gap in knowledge about the credit and its potential benefits.

There's a reason for this. Too often the Government sees the credit as a line item not a hugely successful R&D incentive. It should be lauded not hidden away. We therefore urge the Government to launch a promotional campaign to sell the credit, its benefits and better explain to early-stage companies how they might claim. Not only would this help to increase the R&D spend of companies across the UK, but it would also increase the level of awareness of companies about how to claim - addressing the challenge that is caused by untrustworthy operators in the market.