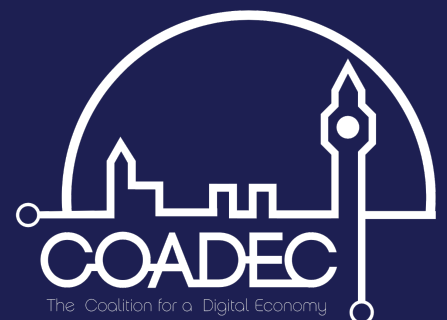


The Startup Manifesto



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Foreword

Coadec and The Entrepreneurs Network last published manifestos in 2014. A lot has changed since then, most notably the vote on 23 June 2016 to leave the European Union. To say that Brexit has dominated politics would be an understatement – it's become the mood music of a divided nation.

Yet growing political uncertainty hasn't dented Britain as a global hub of entrepreneurship. The numbers speak volumes:

- Since 2010, the number of people engaged in early-stage entrepreneurial activity has increased by a third from its previous long-run rate.
- Over the last four years we have seen a 35% rise in the number of high growth businesses.
- Investment for UK scaleup digital tech firms grew 61% between 2017 and 2018, with total venture capital investment in UK tech in 2018 topping £6bn, more than any other European country.

The core of what startups need to build world-beating companies hasn't changed. Talk to founders and it consistently comes down to three key things: world-class talent from both here in the UK and abroad; the right kind of incentives to support the creation of early-stage businesses then access to the capital needed to scale them; and a clear, simple set of rules and regulations flexible enough to encourage new and innovative startup business models to grow.

While each policy taken in isolation may seem like a minor tweak – taken together it forms the vital blueprint for making Britain the best place in the world to start and grow a business.

In terms of policies, this means reforming the visa system so startups can attract the best and brightest without the bureaucracy, streamlining tax reliefs so we can get timely investments in ambitious businesses, and reforming pension regulations to attract more funding into early-stage businesses.

These policies would be good for startups, but more importantly they would be good for the country as a whole. When you support Britain's entrepreneurs you support the whole economy. New businesses create most new jobs and it's these startups that come up with innovative products and services that make our lives better.

**Dom Hallas, Executive Director
Coalition for a Digital Economy (Coadec)**

**Philip Salter, Founder
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Summary of recommendations

Talent & Skills

- Ensure that the Start Up and Innovator Visas are implemented successfully
- Reintroduce the Tier 1 General visa – or an equivalent
- Reduce the Tier 2 Visa Salary threshold and allow stock options to be considered in visa applications
- Extend the Tier 5 Youth Mobility Scheme visa to European citizens
- Modernise EMI by increasing current limits from a £30M asset capitalisation to £100M, and from 250 to 500 employees
- Support more women to start and scale businesses

Access to finance

- Reform the Tier 1 Investor Visa by lowering the minimum qualifying investment threshold for investment in UK startups, scale-ups and venture capital funds
- Reform advance assurance for EIS and SEIS to unlock more investment in high-growth startups
- Unleash pension fund capital by adjusting the pension charge cap
- Encourage the British Business Bank to provide more risk capital
- Reform R&D Tax Credits so that they are fit for a modern digital economy
- Improve access to Innovate UK grants
- Devise a coherent regional startup strategy

Regulation

- Secure a Data Adequacy agreement as soon as possible
- Promote innovation in regulated sectors by creating a cross-sector regulatory sandbox
- Use Open Banking-style reforms to promote innovation in sectors such as telecoms and energy
- Revolutionise the way government collects, stores and shares data
- Implement the Age Appropriate Design Code in a pragmatic way
- Work with startups to ensure tech regulation does not create new barriers to entry
- Protect encryption from politicised attacks

1.

Talent & Skills

Ensure that the Start Up and Innovator Visas are implemented successfully

International talent is the driving force behind the UK's startup success story. While just 14% of UK residents are foreign-born, 49% of the UK's 100 fastest-growing startups and 11 out of the UK's 16 startup unicorns (pre-IPO startups with a valuation of over \$1bn) have at least one foreign-born co-founder. There is an overwhelming economic case for keeping the UK open to international entrepreneurial talent.

The Tier 1 Entrepreneur and Graduate Entrepreneur visas were bureaucratic, badly promoted, and not fit for purpose. The government was right to replace them with the new Innovator and Start Up visas giving incubators, accelerators, and venture capital firms a key role as external endorsing bodies. However, serious flaws in the implementation of the Innovator and Start Up visas risk making it even harder for foreign entrepreneurs to create jobs in the UK.

At the time the previous Tier 1 Entrepreneur visa route was closed, there were no endorsing bodies ready to accept applications, and only one of the 30 initial endorsing bodies had any information about the visa on their website. This created a situation where the UK was, briefly, the only major developed economy without an entrepreneur visa route. In the first quarter since the Innovator visa route opened just two applications were successful. At least four of the initial 30 endorsing bodies have already dropped out.

There are two major flaws in the implementation of the Innovator and Start Up visas. First, the requirement for endorsing bodies to receive approval from two different government departments has delayed endorsing bodies from being able to accept applications. This additional requirement was announced after the scheme had been live for 2 months and without any pre-warning, after a number of bodies had already submitted applications to become endorsers. Second, endorsing bodies are unable to charge immigration fees, despite the fact that in order to endorse an applicant, the endorsing body must input several hours of work in assessing the business plan, alongside other costs.

If endorsing bodies are unable to charge fees, they will only have a financial motivation to endorse an applicant if they are taking loan or share capital in the new business. In practice, entrepreneurs who have their own capital, or capital from organisations other than the small pool of pre-approved endorsing bodies and don't want to give up additional equity will find it difficult to enter using this route.

Alongside resolving the issues mentioned, the Home Office should also collaborate more with Local Enterprise Partnerships, cities, and business groups to ensure that sponsoring organisations have a wider geographic and industry spread so they better represent the UK's entrepreneurial ecosystem.

“*In order to continue being competitive in the global digital economy we have to ensure that the best talent for the skills we are missing is already in the UK. Limiting access for people who bring the skills we know we are lacking is completely counterintuitive and detrimental to our economy.*

Reintroducing the Tier 1 General visa, or an equivalent, will allow talented people with the skills the UK needs to come to the country without having to be tied to a specific sponsor. As a result, they will contribute to the digital ecosystem, supporting the community and driving the economy while also being exposed to more potential job opportunities than they would have being abroad. In addition, this will provide increased talent for our start-up ecosystem which has had several challenges under other visa programs such as Tier 2.”

Dr. Miguel Martinez, Co-Founder & Chief Data Scientist | Signal AI

Reintroduce the Tier 1 General visa – or an equivalent

If and when we leave the European Union, ending free movement will deprive startups of a vital source of high-skilled labour. This makes reforms of other visa categories even more necessary.

The Government has called for the introduction of a points based system, but it's rarely acknowledged that the current system is the remnants of one. In 2015, the government stopped accepting applications for the Tier 1 (General) visa, which had been introduced in 2008 to replace the Highly Skilled Migrant Program (HSMP).

The Tier 1 (General) visa allowed highly skilled migrants from around the world to come to the UK to live and work for any employer, including working for themselves, with the initial visa lasting for two years. This meant that the best and the brightest could come to the UK with the freedom for the individual of not being tied to a specific employer, while early-stage businesses could employ them without the costs and bureaucracy of needing to go through a sponsorship route.

If we are to compete internationally, the next government should bring back the Tier 1 (General) visa, or create a similar path.

Reduce the Tier 2 Visa Salary threshold and allow stock options to be considered in visa applications

The current salary requirement of £30,000 for Tier 2 Visas has proved difficult for startups to meet because many people are paid less in the early stages of a company. ONS data shows that 46.1% of people employed in technical jobs receive a salary of less than £30,000, which makes it difficult for startups to hire at junior and mid-level positions, as those salaries fall below the threshold. These positions cannot be filled easily via the Tier 1 Exceptional Talent Visa either, which leaves a hiring gap for many companies.

It would be preferable for the salary threshold to be lowered to around £21,000, which 25.3% of employees in technical jobs and 39.2% of all people in full-time employment earn less than.

Stock options form an important part of the compensation packages offered by startups, as equity is often offered to key hires in lieu of a higher salary, in order to moderate operational costs at the beginning of a startup's lifecycle. There is no reason why their value should not be taken into account for the salary thresholds in visa applications, especially since they are already used for other reporting criteria such as gender pay gap reporting. It would be reasonable to expect the equity to be written into the employment contract and worth under 30% of the total compensation package.

“UK startups and scale-ups compete for talent not just domestically, but more widely on an international level. In some areas like London, the shortage of technical talents means we have to hire people who need a visa to work here, but the current salary threshold is quite high, especially when considering more junior positions. Furthermore, even though stock options are a common way to make up for lower salaries in startups, they aren't taken into account when applying for Tier 2 Visas. This needs to change. Hiring abroad is essential to companies like toucanBox, Tier 2 visas need to be made available to more talents so the ecosystem can continue to flourish.”

Virginie Charles-Dear, Founder | toucanBox

Startups are able to compete against big tech companies for domestic top-tier talent by offering equity in lieu of a higher salary. They should be given the same level-playing field when seeking to hire from abroad.

Extend the Tier 5 Youth Mobility Scheme visa to European citizens

Tier 5 is a successful suite of visas that support youth mobility. The Tier 5 Youth Mobility Scheme visa currently allows those aged 18 to 30 from specific countries to live and work in the UK for up to 2 years, which includes the freedom for them to start their own business. If Britain leaves the European Union, this should be extended to citizens of EU countries and it should also be considered in future trade deals.

The Tier 5 visas allow young people to get experience of the job market, but migrants' connections can also help UK businesses to scale up supporting expansion and growth into new markets; strengthening client relationships in existing markets abroad by being able to use their language and cultural awareness; and helping with business activities using local connections within the UK.

Migrants are able to bring to the workplace culturally unique and complementary skills, as well as knowledge of processes and ideas. They have been known to innovate, up-skill colleagues, improve processes and secure new work.

If there isn't the political appetite to extend this scheme to the whole of the EU, the UK could discriminate, picking countries where there is a perceived special relationship, while allowing citizens of other EU countries to use the Tier 5 Temporary Worker – Government Authorised Exchange visa. The number of visas allocated to each scheme would need to be significantly increased.

In addition, to make the visa system easier for migrants, all Tier 5 visa holders should be able to switch from Tier 5 to Tier 2 (assuming they find a sponsor) as well as other visa routes without the added unnecessary bureaucracy of having to leave the country and apply from their home country.

Modernise EMI by increasing current limits from a £30m asset capitalisation to £100m, and from 250 to 500 employees

Startups need a way to compete with large, established businesses for talent. Since cash is tight, startups are unable to compete against the salaries offered by large tech firms. The Enterprise Management Incentive (EMI) is extremely popular and it has traditionally been very effective in levelling this uneven playing field by allowing startups to grant share options to key employees on a

“*Whereas there are generous tax incentive schemes in place for both investors (EIS, VCT etc.) and founders (Entrepreneurs Relief), team members are not often recognised for the shared risk taking and are often under-represented at the board level. As well as greater board representation, a more accessible employee share option scheme via increasing the EMI thresholds for example is needed. Increasing the current restrictions on the EMI scheme from a £30M asset capitalisation to £100M, and from 250 to 500 employees would allow British scaleups like Onfido to continue to share their success with staff - and aid UK firms in the global hunt for tech talent.*”

Husayn Kassai, CEO & Co-Founder | Onfido

tax-advantaged basis, thus compensating them for their smaller cash salary and riskier employment choice.

But as the criteria for EMI were set in 2000, the scheme urgently needs updating to reflect the maturity of the startup ecosystem. Three quarters (75%) of startups have cited a 'brain drain' of talent to large tech firms over the last 5 years because their growth and success has unintentionally locked them out of the EMI scheme. This has severely damaged the ability of the UK's fastest growing startups to attract, reward and retain the best talent.

We support the letter signed by over 100 startup founders and urge the next government to increase the current limits of EMI from a £30M asset capitalisation to £100M, and from 250 to 500 employees. This would not only help quell the brain drain – supporting startups' ability to compete against large incumbents – they would also allow for greater employee ownership, which in turn would mean greater representation of worker interests and voting rights.

In addition to ensuring the UK continues to attract the best tech talent, these changes would also help to attract more VC capital. In a study of 38 countries' share option schemes, the Research Institute of Industrial Economics found that a more competitive share option scheme increases VC activity. Taken together, this would help cement the UK's position as a global tech hub.

Support more women to start and scale businesses

Women have made great strides in entrepreneurship this past decade. In 2011, 11% of startups that raised equity investment for the first time were female founded. By 2018, the figure had almost doubled to 21%. Once funded, women-led businesses are just as likely to secure second and third rounds of financing.

Barriers to participation and growth persist, however. Just one in five business owners is female and women-led firms are underrepresented in those sectors most likely to scale (e.g. tech and IP-based businesses). Studies suggest they are held back by three factors: access to finance, risk aversion, and access to networks.

We offer three recommendations to ensure more women start and scale businesses. First, we need to tackle STEM drop-off rates by gathering more data, consulting with schools and universities to examine the role of socialisation in the disparity, and examining how careers guidance could inform and tackle gender stereotypes.

Second, we should ensure the Minister for Women and Equalities has female entrepreneurship in their remit, and encourage MPs and Ministers to open the doors to Number 10 and the House of Commons to formally validate and celebrate female entrepreneurs' efforts.

Finally, a lack of networking opportunities remains a persistent barrier to female founders. By providing networks – through LEPs, for instance – and encouraging more female employees and founders to get into schools and universities, we can shine a spotlight on role models and inspire the next generation.

If women set up businesses at the same rate as men, we'd have 1.1m more in this country. If they can scale them at the same rate too, we could add nearly £250bn to the UK economy.

Utilise private coding schools as lifelong learning providers

It's no secret that there is a real digital skills shortage here in the UK. Tech companies are starting to feel the squeeze already with one study suggesting the country is losing out on £63bn a year because companies are struggling to find people with adequate digital skills.

Better education helped power economic growth in the 19th and 20th centuries, and efforts to modernise the national curriculum to include coding – as well as through digital T-Levels – have been extremely welcome. But addressing the digital literacy and employability of 5-18 year olds is only one facet to ensuring an adequate talent pipeline.

Private coding schools are a widely untapped resource that have a proven track record of turning novices into fully qualified coders in just 12 weeks. We should leverage their success by putting them on a more formal footing with the current education system. Allowing coding schools, and their prospective students, to tap into government funding would ensure that it's not just those in traditional education that have access to digital skills training opportunities.

Taken alongside the National Retraining Scheme, private coding schools can play a crucial role in ensuring that the labour market evolves alongside the skills demand. The next government should explore ways of harnessing the success of our coding schools, as they can provide invaluable mid-career education and help to upskill and reskill sections of the workforce within a short time frame. This will ensure the current and future workforce have the necessary skills.

“ Access to talent is vital to drive the UK’s startup success. It’s no secret that the UK experiences a skills shortage in terms of design, engineering and product development expertise.

Like myself and Kristo, the majority of the UK's startup unicorns have founders that were not born in the UK. The ecosystem relies heavily on the global talent pool - to the tune of 42% - to fill skills gaps.

The next government must ensure the visa system enables UK tech to thrive. Currently Tier 1 and Tier 2 visas are too costly, bureaucratic and slow. We need clarity and certainty now about what the system looks like for our current foreign workers, as well as the international employees we’ll hire in the future. We’re competing internationally for the top talent, so the process needs to be as smooth and seamless as possible.

But the country’s skills crisis has been an issue long before Brexit. The next government must recognise that educating a workforce equipped to thrive in a hi-tech digital economy should be placed at the heart of their approach. Training for those entering the workforce is crucial but emphasis must be placed on those already in work. One-size fits all qualifications may not deliver the flexibility needed to re-train and upskill such a large proportion of the workforce; providing lifelong training opportunities that offer transferable skills to existing workers is key. ”

Taavet Hinrikus, Co-Founder & Chairman | Transferwise

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Access to finance

Reform the Tier 1 Investor Visa by lowering the minimum qualifying investment threshold for investment in UK startups, scale-ups and venture capital funds

The Tier 1 Investor Visa grants the right to live and work in the UK to any foreign national who makes a qualifying investment of £2m or more in the UK. Until recently, the most common form of investment for Tier 1 Investors was in gilts. However under new rules, investments in government bonds no longer qualify. This follows a change in 2014 that prevented investments in property from qualifying. While the rules have encouraged Tier 1 Investors to invest in share capital, the vast majority are investing in established FTSE 100 companies.

In order to promote job creation and innovation in the UK, the Tier 1 Investor Visa should be reformed to direct more capital into startups and scale-ups. Governments have developed multiple targeted tax reliefs such as SEIS, EIS, and Venture Capital Trusts to incentivise investment in higher risk, early stage ventures. Due to the substantial tax relief on offer, the schemes are closely monitored and feature a principles-based risk-to-capital test, alongside restrictions on investments from connected persons, such as relatives or employees.

To promote investment into UK startups and scale-ups, the government should relax the minimum qualifying investment threshold for the Tier 1 Investor Visa for any investments into Venture Capital Trusts and businesses that would qualify for either EIS or SEIS tax relief. A higher threshold should be maintained for lower risk investments.

The government should also remove additional barriers to foreign investments in risk capital. The requirement to top up an investment if the value of an investment declines, pushes investors towards low-risk investments. In the case of a struggling startup, this requirement could swiftly become prohibitively expensive.

Reform advance assurance for EIS and SEIS to unlock more investment in high-growth startups

The Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS) are targeted tax reliefs designed to promote investment into innovative startups and scale-ups. They offer substantial tax relief and de-risk investments in early stage businesses who often face considerable difficulty in raising funds. In the 2017/2018 tax year, 3,920 startups raised £1.9bn in investment under EIS, alongside 2,320 startups raising £182m under SEIS. Most business angels (58%) say they would not have invested at all, if the reliefs were not available.

In recognition of their vital role in the UK's entrepreneurial ecosystem, the next government should commit to maintaining and improving the schemes. In particular, the government should seek to streamline the application process for advance assurance from HMRC, which investors typically insist upon before agreeing to invest. Although the government set a target of 15 working days to approve each application, the waits can often last more than three times longer. Startups often need to access capital quickly and 6 to 8 week waits can place otherwise viable businesses under significant pressure.

There are a number of measures the government could take to substantially shorten wait-times. For instance, they could work with investor organisations to develop standardised EIS/SEIS pre-approved Shareholders' Agreements and Articles of Association to reduce the amount of time inspectors must spend on each application. Companies using standardised documents could qualify for a fast-tracked decision. They could also create greater certainty, with regards to wait times, by allowing applicants to track their application status online.

The advance assurance process is necessary under the status quo as there is no mechanism to make corrections post-investment if they fall foul of HMRC's interpretation. If there were provisions to make such corrections, it could be possible for lower-risk applications (for instance, those using pre-approved standard documents, within the 7 year limit, and not in certain sectors) to be outsourced to accredited independent advisers.

HMRC should also remove the requirement that investors should be identified in applications for advanced assurance, in order to prevent 'speculative applications'. While this restriction was a well-intentioned measure designed to reduce the backlog for the advance assurance process, it has created an unwelcome 'chicken and egg' situation, where startups need advance assurance to attract investors, but can't get advance assurance without an investor.

Unleash pension fund capital by adjusting the pension charge cap

For many entrepreneurs, seeking investment from abroad is not a strategic decision — it happens simply because the funds they need to fuel growth are not available in this country. Venture capitalists (VCs) completed £63.7bn of deals in the US but just £5.8bn in the UK in 2017. While the steady flow of investment from overseas can be seen as a vote of confidence in the UK, it does mean that the fruits of our own startups' rapid growth will be enjoyed abroad.

The government has spent several years examining how to release some of the cash held in Defined Contribution (DC) schemes for investment in fast-growing startups. The next government must follow through on this work as this progressive approach will help the UK to mirror the large amounts of growth capital available in the US and China. In the US, for example, 98% of venture capital funding comes from institutions such as pension funds and insurance companies. This figure stands at just 55% in the UK.

With assets in UK DC schemes expected to exceed £1 trillion by 2029, diverting just 5% of that to venture capital firms would equate to a £50bn funding boost for startups. The British Business Bank has already undertaken a study which found that a 5% portfolio allocation in startup investments

“*Speak to most founders and you’ll consistently hear feedback that without SEIS and EIS relief, they may not have been able to get their businesses off the ground. It’s vital that these reliefs are retained; this pool of capital gives life to so many early stage startups seeking investment and I celebrate this forward thinking tax break the UK Government introduced.*

Sadly, though, the ability to be pre-approved for qualification which HMRC previously offered (and which gave startups confidence to pitch for investment to investors who want to take advantage of this compelling tax relief) has been rescinded.

HMRC’s new advance assurance process has placed fledgling companies in a catch 22 scenario, as it requires applicants to have already identified their prospective investors. This risks locking out many entrepreneurs looking to raise capital for the first time, who want advance assurance before they go out to the market seeking funding that they will qualify.

I fear this will reduce the pool of SEIS and EIS investment made. Busy investors may not want to spend time meeting founders and learning about their businesses if it may ultimately lead to an investment they cannot make. Why do HMRC need to know where the funding is coming from before it gives approval? This scenario is absurd and creates uncertainty where there previously was none?”

Emma Sinclair MBE, Co-Founder | EnterpriseAlumni

appropriately balances against the risks of investing in illiquid assets - thus protecting retirement savings.

Unfortunately DC funds are currently unable to invest in startups, through VCs, because of a statutory 0.75 per cent cap on annual fees. VC fees are significantly higher than passive asset classes with lower returns (equities) due to the costs of managing an unlisted portfolio of companies, which translates into a performance fee.

By adjusting the annual fee cap, to account for performance fees, the next government can unleash this growth capital - hugely benefitting savers at the same time. Research has shown that retirement savings for an average 22-year old could be increased by as much as 7-12 per cent, and the average 45-year old could see an increase of 6-7 per cent. This would ensure that a wider group of people reap the rewards from some of the UK's fastest growing businesses, rather than the profits remaining concentrated in an ever-smaller group of wealthy investors and institutions.

Encourage the British Business Bank to provide more risk capital

The government helps startups to grow and scale by providing them with patient capital through the British Business Bank (BBB). This is structurally achieved through two “fund of funds” schemes - British Patient Capital (BPC) and Enterprise Capital Funds (ECF) - which deploy capital to various venture capitalists (VCs) depending on their fund size. In theory this structure should spread capital across a broad range of investors and, therefore, a wide range of innovative companies.

Although the barriers to entry are meant to be lower for VCs applying for ECF access, in practice there is little difference in the functionality of the ECF to BPC. The BPC focuses exclusively on well-established VC managers who have already been successful in raising capital without public help. Whereas the ECF currently writes marginally smaller cheques into marginally less established VC managers operating slightly smaller funds. Since both primarily support funds larger than £30m, neither are helping to nurture new emerging managers or investment diversification.

For the ECF to fulfill its strategic objectives, it must be reformed to become more ambitious in its policy goals, improving diversity and its added value to the VC ecosystem. To do so there needs to be more of a focus on backing genuine emerging fund managers. The BBB should nurture smaller funds of £5m+ through the ECF, with more established fund managers providing mentoring and training programmes for newer fund managers in exchange for their BPC support. These measures would help diversify the VC ecosystem, which would in turn improve the investment pool for startups.

In order for the BBB to provide effective long-term patient capital, it is also vital that it is given the latitude to be genuinely risk taking. This will require the BBB remaining fairly independent from central government to ensure that long-term investment horizons are not subject to political whim and that success is not deemed by an artificial required rate of return. This will help to ensure that the BBB can become a world class state-backed funding vehicle.

“We're huge fans of the R&D tax credit. At its heart, it's a scheme that backs the innovative work required to develop our world-leading products and services. At Seedrs, it was crucial to receive this kind of support when we were starting out, and it continues to be extremely important as we are scaling up.

But it's terribly bureaucratic to file for and, right now, there are things you can't claim for that are clearly part of what we would consider our R&D process. The scheme doesn't reflect the modern research costs of a tech company – things like cloud computing costs & data sets to train algorithms. By bringing it up to date, Government would be giving tech startups at the cutting edge of innovation a real boost.”

Karen Kerrigan, COO | Seedrs

Reform R&D Tax Credits so that they are fit for a modern digital economy

When it comes to R&D spend the UK is lagging behind its peers. According to the latest spending data, we only rank 11th in the EU and 19th in the OECD. Although the government has set a target of achieving 2.4 per cent of GDP for R&D investment by 2027, if R&D investment continues at the current rate of growth the UK would not reach this target until 2053... 26 years too late. If we are to meet the 2.4 percent of GDP target we must increase the amount of R&D work carried out by startups.

The UK's tech sector is growing over one-and-a-half times faster than the rest of the economy, yet tech startups are currently being denied the right to R&D Tax Credit rebates for a range of technologies that are vital to their innovations.

Take data for example, the lifeblood of any tech startup. Since it 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. Yet it's integral to R&D projects of many tech startups, including AI and machine learning.

Another issue of major hindrance to tech startups and scaleups concerns cloud services. Startups rely exclusively on cloud providers to work with large datasets, train new algorithms and deploy sensors at scale when developing their products. However, more often than not, these costs are not accepted in tax credit applications. It is vital that startups have access to the computing power they need to build world-beating products and services.

Similarly, over 80% of startups undertake significant amounts of user interface (UI) and user experience (UX) research which they considered a vital part of their R&D processes. At the moment, startups are unable to claim fully for the costs they incur building innovative solutions to the front end of their product. Tech firms won't market 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.

We know that R&D is going to be critical for the future of the UK economy. We know that startups with limited capital need to invest early to be able to build world-beating products. And we know that the system needs to be updated. The next government must look at modernising this great scheme so that it is fit for the digital age.

Improve access to Innovate UK grants

The cost of making UK research funding more professionalised in the past three decades has been to make it more bureaucratic and managerial as well.

“There is a real need to ensure that Innovate UK grants are targeted to serve our small business community. From speaking to our peers, it seems as though grants are all too often awarded to big corporates who can no longer obtain the funding they would have traditionally received directly from government departments.

The problem for startups in the 1-3 year stage at the moment is that there is a growing and gaping chasm in seed-stage investment. If Innovate UK grants and loans become scarcer and harder to get then the UK will soon have a national shortage of startups providing innovative solutions, as the necessary talent will begin to look elsewhere. Some of our peers have already been offered the chance to relocate to more favourable funding environments, which is why the government must look at making the grant scheme more accessible for small businesses.”

Merlie Calvert, Founder & CEO | Farillio

This has meant that many innovative firms prefer not to bother with grants from Innovate UK, for example, because of the time and cost of applying and the amount of reporting necessary. The cumulative cost to all the applicants for any particular grant could be a sizeable per cent of the actual grant award: for example, 10 applicants spending 2.5% each on the application would be 25%.

Apart from the bureaucracy involved, it is not clear that research grants are very well targeted. Inevitably, many good projects will fail the approvals process, and application reviewers end up separating not just good from bad, but good from good, a more difficult and probably less valuable task.

There could also be clearer focus on Innovate UK's reason for existing – the market failures, like uncaptured spillovers or collective action problems, that means that private investment may underfund innovation from society's point of view.

To simplify and better-target grant funding, the next government should pilot a lottery-based funding system, where grant applications are reviewed to pass a certain threshold and those that do are entered into a funding lottery. The assessment could include whether there is a “market failure” case for support where for-profit VCs have decided not to, so that government funding has a clear purpose grounded in the economic case for supporting innovation.

Devise a coherent regional startup strategy

There is currently a disconnect between central government and regional tech ecosystems. The needs and requirements of startups in the nations and regions of the UK are very different to those situated in London. Yet there has been a tendency for government to take a top-down approach, using one size fits all initiatives which do not work within local ecosystems.

Additionally, the investment landscape across the UK is not uniform. Private investment varies from region to region, while outside of London, emerging and innovative funds can lack a network of peers and mentors, which would increase their chances of success. Unlike London, startups and scaleups in the rest of the UK often rely heavily on public-backed investment funds. Where regional clusters have sought to move to a privately financed model, they still face challenges, as there is a perception amongst private investors that regional investments can be higher risk.

To mitigate this risk, we must start to build and connect nationwide network of Non-Executive Directors, peers and mentors outside London for emerging and innovative VC funds to tap into. The British Business Bank's UK Finance Hub should partner with organisations like Capital Enterprise and local, established cluster-based organisations to create a network that could highlight both best practices, and also practices that could prove risky for emerging funds in the long run. This would instil confidence in regional investments, enabling emerging funds to unleash capital outside London.

But investment alone brings less benefits than when it is combined with business support initiatives, especially in newer, more emergent ecosystems. It is widely felt that Local Enterprise Partnerships (LEPs) across the country do not understand, and are not always responsive enough to, the needs of the tech sector. Future investment schemes should consider ways to ensure that investment and local support are intrinsically linked. Where an approach has been successful in one region, it should be shared with other LEPs and regional funding bodies to understand

transferability.

Similarly, the digital skills shortage is felt very acutely in the wider regions, however, it cannot be resolved with a uniform approach. The issue needs to be overcome by understanding what is happening at a grassroots level in terms of skills and the provision of skills and training, and intervention has to be targeted and funded to deliver for individual regions.

The next government must devise a coherent regional startup strategy that takes a grassroots approach within regions outside of London, developing more networks and infrastructure to share transferable best practice between tech clusters to bridge the disconnect.

“The UK Tech Cluster Group brings together a diverse range of regional tech hubs. From the North East, Manchester and Birmingham to East Anglia, Sussex and Cardiff, our regional tech clusters have vibrant and thriving startup ecosystems. While some local ecosystems are more developed than others, we all agree that there is a need for a coherent regional startup strategy from central government.

This must be founded upon a grassroots approach within the UK's regions. A 'one size fits all' approach does not always work within local ecosystems and they can be counterproductive and sometimes damaging. To develop an effective regional startup strategy, the next government should look at developing the networks and infrastructure that is required to share transferable best practice between tech clusters.”

David Dunn, Chairperson | UK Tech Cluster Group

3

Regulation



Secure a Data Adequacy agreement as soon as possible

Data is the lifeblood of the UK's startups, and that lifeblood must flow freely. In the event of leaving the European Union, we will become a third country to Europe's data protection framework. This means that while UK businesses will still be able to send data to Europe as before, information flowing from Europe to the UK will require a lot more work.

Without a data protection adequacy agreement, meaning EU recognition of the UK's domestic privacy framework as one which protects European data to European standards, startups will need contract-based legal structures to cover their data flows. While these contractual structures are easy for large tech companies, they can consume a startup's time and funding.

The process of evaluating the UK as an adequate third country cannot begin until the UK has left the European Union - you cannot, after all, evaluate a third country which is not a third country yet - and would take no less than a year to adjudicate. Nor is an agreement guaranteed by any means. A range of issues, including the UK's domestic surveillance programmes, stand in the way of the UK being deemed adequate.

It will be absolutely critical for government to ensure that an adequacy agreement can be achieved, as quickly as possible, to keep the UK's startups afloat. This will mean remaining within the spirit and letter of the European data protection framework, supporting startups to devise contractual protections at the speed of business, and resolving domestic issues which could block an adequacy recognition.

Promote innovation in regulated sectors by creating a cross-sector regulatory sandbox

Regulatory sandboxes allow new firms to operate outside some existing regulations, many of which are constructed with large incumbents in mind. The success of the UK's fintech sandbox shows how effective they can be.

An "n+1 sandbox" could replicate this function across other sectors, issuing five-year provisional licenses to innovative companies with business models that conflict with existing regulations, which could then operate outside those regulations. The companies would be required to take out liability insurance, or in some cases the regulator itself may offer it (at a price) if the private sector would not insure an innovative business.

This approach exists in healthcare already, where treatments may be used in certain circumstances even before they have won full regulatory approval, as well as in fintech to some extent.

This would have two objectives. The first would be to make it easier for innovative companies to come to market, and test out their propositions without having to worry about regulations which may unintentionally have prevented them from operating. The second would be to highlight regulations that are causing problems and holding back innovation, allowing other regulators to see the costs of their actions that would otherwise be invisible.

Use Open Banking-style reforms to promote innovation in sectors such as telecoms and energy

Open Banking allows consumers and small businesses to share their banking data via a secure API with approved third parties, and to allow those third parties to make payments on their behalf. Its objective is to “unbundle” banking services from the traditional current account so that bank customers can access third party services, like accounting and payments software, without the need to move accounts.

The Open Banking principle could be applied to other products as well. The FCA is currently considering whether to extend Open Banking-style APIs to other financial products like savings accounts, mortgages and insurance, and BEIS is considering a wider application of data sharing through secure APIs to markets like energy and telecoms as well.

This “Open Everything” approach will have increasing returns as more kinds of data are made available. Many businesses spend lots of time and money managing everyday expenses like energy and telecoms, or end up spending too much because they get stuck on expensive deals. Data sharing would allow them to delegate the task of shopping around to a trusted intermediary.

It would also unlock valuable data to innovators, with the owners of that data remaining in control of how it can be used and by whom. In energy, for example, data sharing would make demand-side response viable, so that businesses that could help people draw electricity at times of lowest demand, for example by providing home batteries that can charge in the middle of the night, to save huge amounts of money and allow us to move to renewables that might otherwise be unviable because of intermittency.

“It’s no secret that the financial industry was in dire need of a makeover. Even though banking is an important part of everyday life, few really understood how the industry worked.

With Open Banking, customers now have the opportunity to control their financial data — and release it from banks’ ownership. With customers’ permission, startups could access transactional data — such as spending habits and regular payments — and build innovative solutions to everyday problems at a rate never seen before.

Cleo is one of those innovative solutions. Using financial consumer data, we’ve been able to build an AI-powered product which addresses one of the most pressing societal issues faced by Millennials and Gen Z: not feeling connected to their money.

Traditional financial products can be messy. Whether they involve sneaky overdraft fees or expensive credit card costs, these don’t often work for millennials. This generational cohort expects intuitive and supportive technology that speaks their language, without complexity or condescension. With her human voice, smart AI, and witty chat, Cleo connects to millennials and Gen Z users concerned about their money. Using data analytics to identify spending patterns, Cleo helps them budget and save more effectively than ever before.

There’s infinite potential behind Open Banking. Though there’s still some way to go to make sure strong customer authentication (SCA) doesn’t restrict startups’ ability to access bank data, there lies a clear benefit to extending the principles of Open Banking. Imagine a future where mortgages, insurances, pensions, and investments can experience unprecedented change like the consumer finance industry; a world where startups build innovative solutions to society’s most urgent problems: financial exclusion, unaffordable home ownership, and intergenerational inequality. The possibilities are endless.”

Thish Nadesan, COO | Cleo

Revolutionise the way government collects, stores and shares data

At the extreme, governments' failure to properly collect, store and share data can destroy individuals' lives – just ask British citizens caught up in the Windrush scandal. But on a sustained basis, business owners are stymied in their interactions with government, monopolising time that could otherwise be spent focused on running their business.

At present, there is a lack of standards across government leading to inconsistent ways of recording the same data. The National Audit Office has found that more than 20 ways of identifying individuals and businesses across 10 departments and agencies, with no standard format for recording data such as name, address and date of birth.

Tinkering may help, but the next government could and should be more ambitious. Estonia's X-Road is the model we should shamelessly imitate. The keystone of Estonian digital society since 2001, is "allows the nation's various public and private sector e-service information systems to link up and function in harmony." It is estimated that the general savings is around 12 million hours every year.

Since 2016, X-Road has been available as open source under an MIT License. In fact, the UK was considering using it back in 2013. Finland, Iceland and the Faroe Islands have already adopted the platform. With its e-residency card, Estonia even allows entrepreneurs outside the country to start and run a company – which embarrassingly the Mayor of London's entrepreneurs of the year 2017, Ellenor McIntosh and Alborz Bozorgi, founders of eco-friendly wet wipe brand Twipes, did to avoid Brexit complications.

Estonia's experiment was a gamble. It could have failed – but it didn't. We aren't asking for the next government to take a leap in the dark; they just need to copy what already works elsewhere so Britain's businesses – and perhaps even those located overseas – can flourish.

Implement the Age Appropriate Design Code in a pragmatic way

Next year the Information Commissioner's Office plans to introduce its Age Appropriate Design Code, a series of design standards which aim to make the internet a safer place for children. As it's been drafted, though, the Code won't quite achieve that - but it will make the UK a more difficult place to start and run a tech business. The Code's provisions will require startups to impose mandatory age verification on all sites, regardless of whether their services even target children,

and to collect and safeguard all that user data; create up to six different versions of their services for six age bands from infancy to adulthood; and create parental monitoring systems to let children know they're under surveillance. That's just the start of a list of sixteen requirements which will put startups in the business of corporate co-parenting first, and their actual business models second.

The costs for coming into compliance with the Age Appropriate Design Code's requirements, which will include everything from contracting with age verification providers to beta testing privacy policies on preschoolers, will fall entirely on startups to bear themselves, on top of the costs they are already incurring ahead of the UK leaving the European Union.

While we all have a role to play in making the internet a safer place for children and young people, the Code must be implemented in a pragmatic way, and enforced in a manner which assumes the best intentions of businesses rather than the worst. As existing iterations have been drafted, startups and scaleups which don't even target kids are at risk of being forced into an absolutely impossible regulatory burden. It's in everyone's interest - both kids and startups - for the ICO to implement a code that does not set up the tech sector to fail and render the UK a no-go area for doing business along the way.

Work with startups to ensure tech regulation does not create new barriers to entry

Further regulation of internet platforms now seems inevitable. But as the Government themselves have admitted, there isn't a one-size-fits-all framework for tackling the challenges that have risen along with tech platforms.

One thing is clear: there is a real risk of poorly designed regulation hitting startups harder than the tech giants that the government is aiming at. Where European watchdogs thought that regulation would balance the market, it has actually tilted it further towards the tech giants. Investors agree: 86 per cent of UK investors surveyed worry that policies aimed at tech giants could hit startups harder than their intended targets.

Startups have already struggled and are likely to struggle again with the recently passed Copyright Directive. The UK's dozens of committee reports, draft frameworks, working groups, and proposed legislation muddy the waters even further. So whether it's the domestic Online Harms framework's proposals on subjective harms, the Digital Charter's multiple areas of focus, or the EU's review of intermediary liability provisions in the forthcoming Digital Services Act, the next government needs to be mindful of the impact that sweeping regulation can have on startups.

That's also why it's so important for the next government to take heed of the Furman Review's findings into digital competition on regulation - and that it doesn't just cherry-pick the bits it likes. Professor Furman and the panel warned that regulations could "cut across each other if taken forward in isolation", and that government "should ensure that pro-competition aims and functions are aligned with others, and that the regulatory landscape for digital businesses is kept simple".

Now the tide of public perception is turning against the tech giants, they are building a regulatory moat to protect their interests - because they are large and profitable enough to do so. The next government should not inadvertently help them by drafting punitive regulation which misses its target and hits startups instead.

Protect encryption from politicised attacks

As every technologist knows, policymakers have a tendency to judge the web by the worst abuses of it, and try to legislate it accordingly. That's certainly the case with encryption, which is routinely singled out as the cause of everything from child abuse to terrorism. In recent months, DNS over HTTPS encryption has come in for particular criticism by MPs who believe that it will undermine the CSE filters provided by the Internet Watch Foundation. This has led to some of them setting up a zero-sum argument: the UK can have child protection or data protection, but not both.

We want policymakers to look at the wider picture with cooler heads. DNS over HTTPS encryption fills in the gaps which leave all web users at risk. It adds a layer of encryption to one of the last remaining fundamental technologies of the web, strengthens protections for users at risk of government censorship, and can help provide user anonymity for vulnerable people who need to stay safe online. It also makes the web a safer place to do business. Despite all that, the UK government is the only government seeking to reverse this technical direction of travel on ideological grounds, risking a British internet which works to its own set of technical standards.

DNS over HTTPS is not a risk to children or the CSE monitoring frameworks which protect them. The solution to those issues lies elsewhere. Encryption must remain end-to-end, and encrypted DNS technologies should not be the subject of legal blocks or filters.

It's also critical that policymakers don't insist that platforms and providers provide "backdoors" for law enforcement to bypass encryption. A backdoor to one phone is a backdoor to all.

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



The Entrepreneurs Network is independent, non-profit and non-partisan. We support entrepreneurs by:

- Producing cutting-edge research outlining the benefits of easing unnecessary burdens upon enterprise;*
- Hosting regular events to bridge the gap between the aspirations of the entrepreneurial community and policy makers;*
- Building a network of entrepreneurs who are keen to improve the public policy debate;*
- Championing entrepreneurship and making the case for a more entrepreneurial society.*

We are also the Secretariat of the APPG for Entrepreneurship. The APPG for Entrepreneurship was set up to encourage, support and promote entrepreneurship and to engage with entrepreneurs; and to ensure that Parliament is kept up to date on what is needed to create and sustain the most favourable conditions for entrepreneurship.