



THE UK'S AI STARTUP ROADMAP

STARTUP COALITION + ONWARD + TBI

Acknowledgements

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Executive Summary

AI is likely to be the definitive technology of the century, disrupting and reforming whole economies. And this is a make or break moment for AI development in the UK. Supporting, enabling, and turbocharging the UK's AI sector is in the Government's hands.

If the UK Government succeeds in harnessing our AI sector, the benefits will be huge. Successfully unleashing AI could help us cure diseases, transform public services, and accelerate our sluggish economic growth – potentially adding £400 billion in economic value by 2030. But if the Government's approach disproportionately hinders the UK economy's ability to adopt AI across other sectors, or is complacent about growing the AI sector itself, we could see the UK quickly lose ground to other nations and miss out on these benefits.

One thing is clear: we will not succeed without startups. That is why Startup Coalition, Onward, and the Tony Blair Institute for Global Change (TBI) have come together to deliver the AI Project: to better understand what the UK's world-beating AI startups need to succeed in the new AI age.

We have spent the last three months speaking to startup founders to build an in-depth understanding of the challenges they face and what is needed to fix them. We did this through moderated group discussions, one-on-one interviews, and policy dinners. While we covered many topics and our discussions were wide-ranging, this report sets out the key themes and issues that the startups repeatedly raised and feel most significantly affect the UK's AI ecosystem.

Four key challenges emerged from our discussions. First, access to capital. While the UK is far up the rankings in global tech investment, European nations are making significant gains. Paris-based Mistral's recent \$113 million initial funding round was the largest ever seed round in Europe. Raising funds remains AI founders' top concern. Untapped potential funding from the pension market would be a vital means of increasing the capital pools, underlining the importance of reforming pension funds as committed to in the Mansion House Reforms. Cuts to R&D tax credits in 2022 have also hurt startups – and the system should be reformed so that startups do not lose out while more effectively promoting innovation, especially Deeptech. And while our Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS) have historically been incredibly successful incentives, they need to keep pace with the times.

Second, access to talent. AI startups struggle to compete with the US for top tech talent due to issues like salary levels and visa challenges. Some founders argued that the pull factors that used to make the UK an enticing place to home their startups have lessened due to broader economic issues. Startups also told us that they fear an overfocus on AI safety by the Government could, in the long run, hinder our ability to attract founders, innovators, and engineers who drive innovation and experimentation. We heard repeatedly that the visa system is not supporting the tech sector as effectively as it could be. The High Potential Individual Visa is too narrow – meaning many future founders are unlikely to qualify under the scheme upon graduation. The Youth Mobility Scheme is another key route, but does not include the US. And the Global Talent Visa

and [Innovator Founder Visa](#) schemes are both held back due to lack of clarity over the endorsement systems underpinning them.

Third, access to compute. Overwhelmingly, startups wanted one thing more than anything else when it came to compute: access to cost-effective and readily available compute capacity. But our compute offer isn't competitive. By the government's own [research](#): the UK went from third in global compute capacity in 2005, to 10th by 2022. Initiatives like the national [AI Research Resource](#) in Bristol are welcome but will struggle to keep pace. Startups also want access to private compute options, and many of the UK's AI startups have opted to build off existing AI infrastructure, such as via APIs or cloud infrastructure. But startups can struggle to get formalised relationships with compute providers quickly and at a reasonable price.

Fourth, regulatory compliance. Despite welcoming the sector-specific approach to AI regulation set in the Government's [AI White Paper](#) earlier this year, founders fear that the increased focus on AI safety concerns could create an impetus for over-regulation that would stifle the sector. They also fear that the tradeoff between [explainability](#) and accuracy of models may not be appreciated – an overly burdensome focus on explainability could cause models to be “dumbed down” and [curb](#) companies' innovative edge. Uncertainty too is a key concern. Regulatory sandboxes are seen as a potentially key enabler of innovation and can boost regulator-industry cooperation, but only if done correctly. Yet the AI White Paper's 12-month timeline is already regarded as too slow and there are concerns that even this goal is likely to be missed as the Government has not kept to the timetable it set itself.

The overarching lesson is that as the Government develops its approach to AI we have to keep the tried-and-tested basics in mind. Across capital, talent, compute, and compliance, we have yet to really nail the fundamentals: accessing capital throughout the lifecycle, hiring and bringing the best and brightest talent possible, competing on compute and data infrastructure internationally, and navigating the regulatory environment. There is much more to do.

To address these challenges, we have compiled “The UK's AI Startup Roadmap” for the Government. Implementing these steps as quickly as possible will put the UK in prime position to succeed and cement its place as a global AI leader.

The UK's AI Startup Roadmap

Investment Recommendations

1. Deliver on the implementation of Mansion House Compact – and go further
2. Renew EIS beyond 2025, review the Financial Health Requirement, and increase HMRC's EIS/SEIS capacity to tackle bureaucracy
3. Reform R&D tax credits by creating one unified RDEC scheme, with a £30k de minimis threshold and 20% relief level (33% for deeptechs)

Talent Recommendations

4. Expand the HPI Visa to better target AI and startup talent, through a focus on bespoke sub-categories or entrepreneurial potential
5. Negotiate a reciprocal agreement with the US to add them to Youth Mobility Schemes
6. Urgently clarify plans for the Global Talent Visa fix and simplify the endorsement system for the Innovator Founder Visas
7. Simplify the spinout system by reforming how TTOs operate and create a two-tiered model for university equity stake

Compute Recommendations

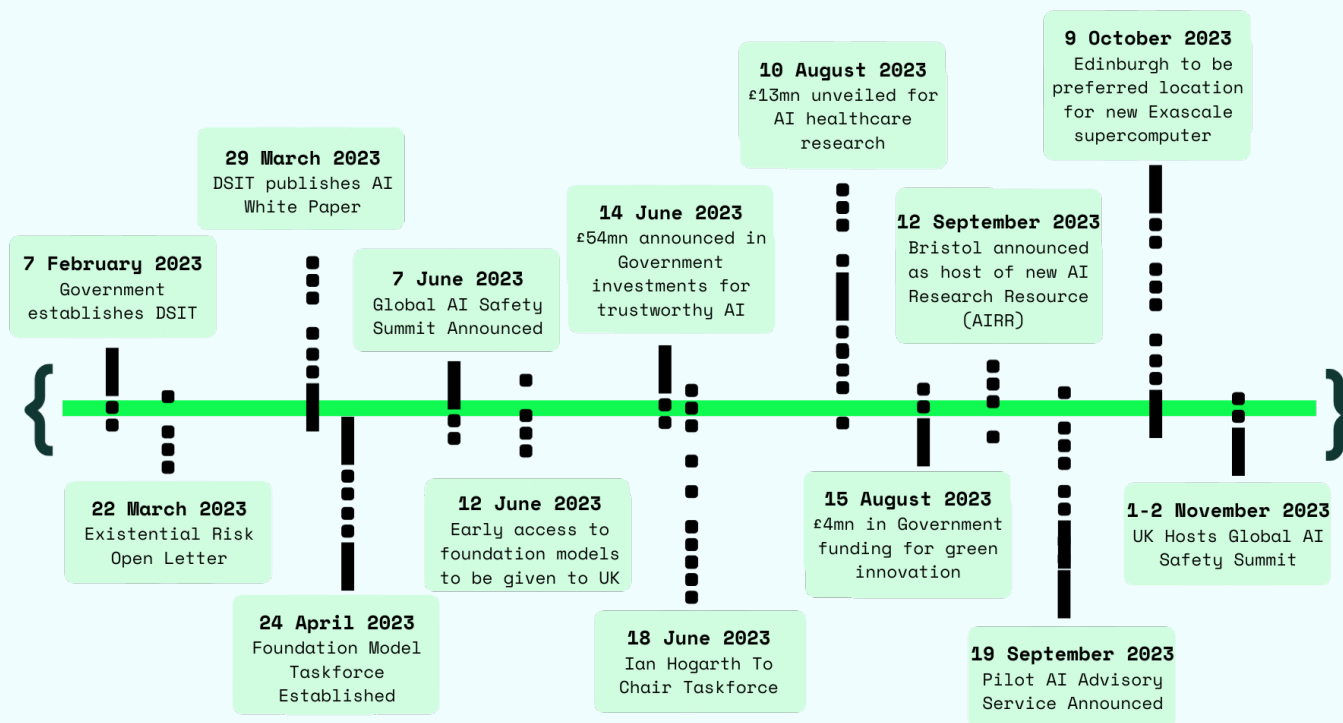
8. Grow the compute menu by increasing national compute capacity, getting better compute partnerships, addressing supply side barriers, and preparing for the next era of compute
9. Create new R&D initiatives for compute alternatives and develop new acceleration programmes for quantum technologies

Regulatory Recommendations

10. Successfully implement the sectoral approach to AI by scaling up regulator capacity as quickly as possible
11. Work with regulators to issue AI-specific guidance for intermediary liability, digital competition, copyright, and more
12. Work with like-minded global partners to pursue international regulatory convergence post AI Summit
13. Accelerate regulatory sandbox plans and ensure introduction of central cross-regulator AI sandbox

The UK's State of AI Policy

2023 has been a defining year for UK AI strategy and the government's ambitions to use the technology as an economic driver of growth, asset for public safety, and more.



In [February 2023](#), Prime Minister Rishi Sunak established a new Department for Science, Innovation, and Technology (DSIT) focused on five emerging technologies: quantum, AI, engineering biology, semiconductors, and future telecoms. [A recent Onward report](#) argues that the creation of DSIT has been a welcome improvement to the Government's approach to science and tech, but that many more reforms are needed.

In March, DSIT released a [white paper](#) on AI regulation proposing a "pro-innovation" regulatory framework that focuses on proportionate, context-specific regulation. Since then, there has been a rise in concern around the possibility of [existential risk](#) from AI. The Government has indicated it will now have a tighter focus on AI safety as it continues to develop a future regulatory regime.

In April, the Government established the [Foundation Model Taskforce](#), now the [Frontier AI Taskforce](#), to lead research and advice on frontier AI risks. Chaired by [Ian Hogarth](#), a UK founder and investor, and with £100 million in funding for AI safety, it is arguably the first of its kind. Alongside the Taskforce, an [agreement](#)

with Deepmind, Anthropic, and OpenAI to have early access to their models means the UK now has one of the largest state capacities to understand, test, and – theoretically – harness safe AI.

The UK also announced in June its ambition to lead international governance on the topic, with a Global AI Summit in November designed to bring a G-7 style international approach to how the global community approaches AI's rapidly emerging national security and borderless risks.

Alongside this focus on AI safety, the Government has also pushed AI adoption. It has committed to scaling national compute capacity with the development of an exascale supercomputer in Edinburgh and an AI Research Resource (AIRR) in Bristol, both aimed at helping researchers harness AI and better analyse its capabilities.

The UK's State of AI Startups

The UK's AI startup scene is growing. At the frontier, the UK is leading, with 48 startups involved in cutting-edge generative AI. But the UK's AI sector is so much more than that. According to October 2023 data from Beauhurst, in the last 10 years, we have seen the number of AI startups grow from 200 to over 1,700 – with the vast majority in the seed and series stages. UK AI startups currently produce over £2 billion in gross revenue and are estimated to employ almost 38,000 people..

Q3, a collaborative project between the Said Business School of the University of Oxford and the venture capital (VC) firm Open Ocean, mapped the UK's AI startup landscape and showcased its diversity in terms of the position of businesses within the technology stack, the sectors of application, and the various technological purposes. The data from the project reveals that the bulk of funding and investment is channelled into AI applications, surpassing the combined investment in AI Application Programming Interface (APIs), tools, and infrastructure.

The sector which receives most funding is health, with £3.4 billion going to AI healthtech in Q1 and Q2 of 2023. Big pharma companies are increasingly leveraging the cutting-edge capabilities of AI in precision drug design and drug discovery. In September 2023, the collaboration between German pharma giant Merck and Oxford-based health AI startup Exscientia was announced, with Exscientia set to receive up to \$674 million in funding from Merck to focus on three projects connected to previously unsolved drug design challenges.

The AI technologies currently drawing the most funding are those involved in recognition tasks: using AI to automatically identify and classify text, images, video and audio data. Startups focusing on its development collectively raised £6 billion since 2011. Globally, the market for image recognition alone has been valued at \$43.6 billion in 2023. It is expected to hit \$134.4 billion by 2030.

Generative AI occupies a relatively small proportion of the total funding of UK AI startups – accounting for only \$1.4 billion out of a total \$29.5 billion (approximately 4.7%). Generative AI is a frontier AI technology that can produce realistic text, images, music, and software code that is readily discussed for adoption in healthcare, education, and financial services – though the classic example known to most is OpenAI's ChatGPT. The top 5 UK generative AI startups in order of cumulative funding as of Q2 2023 are Ultraleap with \$150 million raised, Synthesia with \$120 million, Perspectum and Cognism, both with \$150 million, and StabilityAI with \$92 million. Despite being a small proportion of total funding for UK AI startups, generative AI is being rapidly adopted and established within many of the world's largest corporations. Synthesia, for example, is being utilised by 44% of the Fortune 100 for a wide array of use-cases such as learning and development, marketing, sales enablement, information security, and customer service.

What are the Key Issues for AI Startups?

From our discussions with founders based across the country, including London, Oxford, Cambridge, and Manchester, we have narrowed down the following issues as the most pressing ones facing AI startups. These issues span across sectors, layers of the tech stack, and types of services.

Issues Affecting Access to Capital

Founders fear a lack of support will drive nascent competitors to other nations rather than stay in the UK.

In our discussions, AI founders told us they were concerned that many of the factors that have traditionally made the UK an attractive place to start and scale a startup are increasingly under threat. This ranged from the technical – founders citing struggles with share options schemes – to the practical, such as access to affordable housing or easy transport links. Top of the list, however, was raising funding.

The UK's AI Funding Pool Needs to Grow:

In 2022, we were third in the world for tech investment, behind only the US and China. This access to comparatively large pools of venture capital investment has been an advantage of the UK's tech ecosystem compared to other European countries. But when it comes to AI, we face major threats: crucially, our competition in the funding landscape for AI startups is no longer just the US and China – a muscular European approach also risks the UK falling behind.

The deep pools of capital in the US have shaped an AI ecosystem consisting not only of the traditional Tech Giants but also newer frontier AI firms that have been able to raise the financing they need to grow rapidly. In 2023 alone, an estimated 70% of available global private capital for AI has gone to US-based companies, compared to about 7% for UK firms. Faced with this wall of American capital, China has responded. In just one facet of the Chinese AI investment strategy, their government guidance funds, Chinese officials have raised \$940 billion from public and private sources and are aiming to raise \$1.86 trillion. And concern around the lack of European firms in the previous wave of tech has triggered an EU response. French President Emmanuel Macron announced a plan to invest €500 million in creating French AI “champions” in June 2023. This approach is seen to be bearing fruit: France's Mistral AI, for example, debuted with \$113 million investment in their initial funding round – the largest ever seed round in Europe.

Many of the AI founders we talked to said they have found it harder to raise money in the UK than in the US. Many thought this was due to a culture amongst UK investors that was more risk averse, and asserted that this is a key reason why many of their peers exited the UK to build new companies in the US. They also described the US funding appetite for AI and deeptech as “hungrier” and willing to take riskier investments with less guarantees of revenue. One founder described the juxtaposition of startups on the US west coast being bombarded with VCs proactively contacting them to invest in their business, while founders in the UK, conversely, do not get approached in this way and thus have to spend an inordinate amount of their time fundraising.

This is borne out in the numbers. Investment in UK generative AI companies pales in comparison with our international counterparts. The single biggest funding round for a generative AI startup in the UK \$90 million in Series C by the startup Synthesia – one of the UK’s newest tech unicorns which has cumulatively raised \$153 million. The EU’s biggest was Mistral’s debut in France with \$113 million. Neither compare to OpenAI’s \$10 billion from Microsoft or Inflection AI’s \$1.3 billion funding round in June 2023.

UK Pension Funds Need to Step Up To Widen Capital for Tech

Currently, the UK has one of the largest pensions markets in the world. Despite this advantage, overseas pension funds invest 16 times more in venture capital and private equity in the UK than domestic public and private pensions do. There are many reasons for this and much time and attention, both within and outside Government, has been focused on attempting to address this gap.

One critical issue is that UK pension funds lack the scale necessary to invest in AI startups. The UK’s defined benefit pensions industry is fragmented, with over 5,200 schemes with an average size of £330 million. Their investment strategies have typically pursued a zero-risk approach. There are also over 27,000 defined contributions schemes, 90% of which have fewer than 12 members. Combined, this leaves the UK pensions market too small to properly support UK science and technology.

There is also a huge cultural challenge from funds. There were major concerns from founders and investors that we talked to about the UK pensions sector’s risk aversion. And there is a perception of VCs being bad investments, despite data showing the consistent strength of returns of European VC as consistent to those in the United States.

Startup Coalition, Onward and TBI have all been focused on this issue, and we welcome the recent Government interventions to widen potential pools of capital via the “Mansion House Reforms.”

Recommendation: Deliver on the implementation of the Mansion House Compact - and go further

The UK has the third largest pensions market in the world, but none of the top 40 largest global pension funds. Government should accelerate consolidation of both defined benefit and defined contribution pension funds to ensure funds have the scale required to invest in AI startups and generate higher returns for investors.

In July, Chancellor Jeremy Hunt announced the Mansion House Compact – an agreement with nine UK pension funds that they will deploy into unlisted assets like VCs. Committing to pension reform like this is a boon to the UK's AI startups who look forward to greater VC investment. Diverting just 5% of an expected £1 trillion in defined contribution pensions by 2029 could mean funding of almost £50 billion for startups.

The Government should ensure the full implementation and adoption of the Mansion House Compact, and forthcoming Onward research will explore where these reforms should go further.

Early Stage Funding Incentives Have Not Kept Up With the AI Age

It is not only at the point in their journey where companies need significant capital that there are funding gaps. AI founders we spoke with at pre-seed and seed stage voiced their concern that the UK does not incentivise early stage funding enough – particularly in deeper tech like AI.

The Enterprise Investment Scheme (EIS) and the Seed Enterprise Investment Scheme (SEIS) – established in 1994 and 2012 respectively – are tax incentive schemes that have been critical in encouraging early investment into startups. They have been a remarkable public policy success story for the UK. The schemes, along with Venture Capital Trusts (VCTs) have been so successful at mitigating risk, incentivising investment, and encouraging innovation for startups in the UK that countries around the world have created their own versions. But while EIS and SEIS were originally successful at channelling private investment into early-stage operations, many AI founders we spoke to argued that they have not kept pace with the needs of AI startups.

EIS is due to expire in 2025. In the 2022 Autumn Statement, Chancellor Jeremy Hunt pledged to extend EIS, but action on this has not happened yet and there are fears about the creeping deadline – despite a cross-party consensus on the value of the schemes.

Many founders argued the SEIS scheme has eligibility and investment challenges that are creating huge problems for their early-stage AI startups. To qualify for SEIS, you must have been trading for under three years – a timeline that many founders felt was too short to meaningfully help AI startups, who often start life as projects innovating for years before getting close to commercialisation and potential funding.

Founders also argued that the SEIS and EIS are too bureaucratic and difficult to navigate. There was a consensus that navigating the forms necessary were overly complex, and that the scale of investment allowed under SEIS and EIS might need reviewing when it comes to deeper tech investment, which generally requires more capital than less research-intensive tech companies.

Finally, HMRC has changed their approach to the “financial health” requirement for investment in VCTs and EIS. The financial health rules require a company to have more assets than liabilities and, if it is raising funds outside of its initial investment period, to still have more than half of its invested capital. This change of approach is having a detrimental impact on EIS and VCT-backed businesses and will penalise AI and deeptech startups, which are heavily R&D focussed, to an even greater degree.

These rules were tweaked again in [December 2022](#) (to extend the time period that a company can be in their initial investment period from 7 to 10 years) to limit some of the damage, but it is still an inferior system to the 2004 rules. There has been no change in UK law in this area for over a decade and this interpretation by HMRC should be reconsidered.

Recommendation: Renew EIS beyond 2025, review the Financial Health Requirement, and increase HMRC's EIS/SEIS capacity to tackle bureaucracy

SEIS, EIS, and VCTs are foundational funding sources for young and nascent AI startups and must be continued. Therefore the EIS should be urgently extended beyond 2025. The Government should also review the Financial Health Requirement to ensure it is working effectively. Finally, the Government should ensure that HMRC is staffed appropriately to manage the challenges of administering the system.

There is also the possibility that changes in the market will mean that tech startups of the future will need significantly more capital in order to effectively compete. That will mean adjusting the UK's world leading incentives later down the line. Right now we are in a strong place, but the Government should closely monitor in the future, review, and potentially adjust to account for the needs of AI startups and their future friends in deeptech and quantum.

Changes to R&D Tax Credits are Harming AI Startups by Accident

There was also founder frustration over the [UK's R&D tax credits](#). R&D tax credits are a [critical source](#) of funding for the earliest stage startups innovating in technologies that require an uphill climb to market – especially AI, deeptech, and quantum startups. They are claimed by many startups to help with research and development costs, including salaries, software upgrades, and development of prototypes, and have become

increasingly critical amidst high inflation and interest rates. In the 2020-21 tax year, approximately 78,000 SMEs claimed R&D tax relief.

Last year, the Government cut the R&D relief covering startups and scaleups and announced their goal to merge both the Research and Development Expenditure Credit (RDEC) and the SME R&D relief together. But in doing so, they cut the amount of R&D tax credits that would be available in the SME R&D scheme. Under the current proposal, startups developing new technologies will be able to claim less tax relief, while larger businesses will receive more R&D support. The planned cuts to the SME R&D tax credits meant startups will likely lose between 30% and 40% of savings from the scheme. The Startup Coalition surveyed over 250 founders after the changes were announced and calculated the cuts would make startups worse off by an average of £100k. A further 74% of surveyed founders told Startup Coalition they expected the cuts to severely impact their startup.

Similarly to how the broader startup ecosystem feels, AI startups underlined their concern about how these R&D tax credit changes would negatively affect the amount of credits they can claim, what they can and cannot include in their applications, and the response and payment timelines they already face. While additional R&D tax relief was announced in the 2023 Spring Budget, this has not, on the whole, assuaged startup concerns. The new relief only applies to R&D-intensive firms where qualifying R&D expenditure is at least 40% of total spend. Because startups, and especially AI startups, may struggle to meet this threshold consistently, it adds additional uncertainty to spending on R&D.

Recommendation: Reform R&D tax credits by creating one unified RDEC scheme, with a £30k de minimis threshold and 20% relief level (33% for deeptechs)

The Government should create one merged RDEC scheme with unified rules for startups and large companies. While the government has published draft legislation that explains a proposed merged scheme, the final decision has yet to be made on whether, and how, the schemes will merge.

A merged RDEC scheme that benefits startups should include a de minimis threshold for the whole scheme of £30,000 claim size and a relief level set at 20% of qualifying R&D expenditure, above the line credit for all profitable and loss-making companies. For the most R&D intensive deeptech startups, there should be a 33% taxable credit and the potential to retain carried losses. Any merged RDEC scheme should also retain cloud computing, data licensing, and pure mathematics as eligible expenditure. Other ideal additions include the adoption of draft legislation on treatment of subcontractors and overseas R&D as well as guidelines for R&D tax advisors that can best help startups navigate the credits scheme and rein in bad actors in the tax advisory space.

These inclusions would retain the benefits startups currently have, tackle claims of fraud, and enable HMRC to be able to focus on genuine innovation to make the operation of the scheme more efficient.

Issues Affecting Access to Talent

Founders have told us that, while there are many pathways for talent to come to the UK, they are not working in practice.

A broad view amongst founders was the risk that the UK is increasingly failing to attract the best AI talent. They attributed this to three key issues: lack of competitiveness in salaries, the existing visa routes being too narrow and working ineffectively, and the UK failing to harness homegrown talent through education paths and spinouts.

The difficulty competing on salaries was frequently raised. Bluntly put, very few UK startups can afford to attract the very top talent on salary alone. Those in the UK tech sector earn significantly less than their US counterparts. The average tech worker earns \$159k (£130k) in the US, compared to £83k in the UK – and both these numbers are naturally larger due to the higher salaries at bigger tech companies. A typical startup could not afford to compete on salary with bigger tech companies, and the Enterprise Management Incentives (EMIs), designed to enable firms to offer attractive share options for startup employees, have not evolved with the pace of growth in the sector. Currently, EMIs are limited to companies with asset capitalisation up to £30 million and 250 employees, which many startups these days surpass relatively quickly in their growth cycle. Several founders mentioned that one of the clear pull factors for the UK used to be that the UK is a nice place to live with access to good schools, nightlife and culture. With factors such as rising housing and living costs, this was viewed as increasingly hard to compete on.

The Government's focus on AI safety was also not met with universal approval from startups. To paraphrase one founder: some startups are worried that focusing so prominently on safety may mean the UK will end up attracting the top AI policy brains but not the top practitioners. While it may be that leading on AI safety creates an environment for many of the big US frontier labs to make their UK teams bigger, such as OpenAI and Anthropic, founders today wondered if future founders, engineers, and technologists – all of whom are mission critical for driving wider growth as we move into an increasingly AI-enabled economy – will be put off coming to the UK to innovate.

Immigration Hurdles Put Off Talent From Coming Here to Innovate

The UK's tech success is dependent on our ability to attract the best international talent. 39% of the UK's fastest growing startups have foreign-born founders, the most common nationality being American. But the UK is currently facing a growing inability to compete on what has made our startup ecosystem so strong: talent from abroad.

Founders told us that, while there are many pathways for talent to come to the UK, they are not working in practice. The design of several of the most startup-friendly visa routes do not apply to many top founders and innovators around the world.

The [High Potential Individual Visa](#) enables graduates from the world's [top 50](#) universities, as determined by the Home Office, to come to the UK for 2 years – 3 if they have a PhD – without a job offer if they are on 2 out of the 3 internationally recognized rankings. However, a number of successful AI founders in the UK told us that it did not include their alma maters or the alma maters of successful immigrant founders they knew and could exclude raw entrepreneurial talent from equally strong universities and even STEM-focused schools that focus on developing AI talent. This is in part because the top universities rankings are based on research output, facilities, and the number of Nobel Laureates employed – all imperfect predictors of graduate quality. One example of the failure to include raw entrepreneurial talent is how the HPI scheme currently excludes talent from [the IITs](#) from applying – a set of Indian universities that have educated the likes of [Sundar Pichai](#) the CEO of Google, [Parag Agrawal](#) the former CEO of Twitter, and [Arvind Krishna](#) the CEO of IBM.

Recommendation: Expand the HPI Visa to better target AI and startup talent - through a focus on bespoke sub-categories or entrepreneurial potential

The Government should explore increasing the number of universities it takes so that it includes more leading universities that are hubs for AI and tech talent. Doing so will ensure that more leading graduate programmes in tech are included and that particularly strong universities like the [University of Montreal](#), Carnegie Mellon, and IITs are not left out.

There have been a wide range of suggestions for how best to do so, from the creation of new [subcategories of visa](#) for specialist AI tech expertise to using [graduate earnings](#) as a measure of university eligibility. Whatever the Government may choose to do, we would strongly urge them to do something to unlock eligibility for the specific high-skilled AI talent both startups and the British economy needs.

The [Youth Mobility Scheme Visa](#) allows young people between the ages of 18 and 30 (or in some cases 35) from select countries, including Australia, New Zealand, Canada, Monaco, San Marino, Iceland, and – in some cases – Hong Kong, Japan, South Korea, and Taiwan. It allows them to come to the UK to work for a fixed period, operating as a reciprocal scheme where Brits have the opportunity to temporarily move to these countries. The scheme allows some of the most ambitious young people – many from countries with strong STEM backgrounds – to come to the UK and contribute to our economy. However, it does not include our [single largest trading partner](#), the US.

Recommendation: Negotiate a reciprocal agreement with the US to add them to Youth Mobility Schemes

Both the UK and the US have precedent for mobility schemes that work. The UK's Youth Mobility Scheme hinges on reciprocal agreements with countries on the list to offer the same opportunity for British Citizens to temporarily move there. In a slightly different approach, the [E3 Specialty Occupation Workers Visa](#) scheme with Australia in the US – created as part of the [Australia-United States Free Trade Agreement](#) – allows Australians in specialty occupations to work in the US without restrictions for as long as they like, so long as they remain employed and they continue to renew every 2 years.

The UK should negotiate their own reciprocal agreement with the US to create another avenue to attract high-skills talent and to build on existing US-UK migration and economic ties. The US shares with the UK democratic and cultural values, common language, and similar business culture. Because the US is also the only democratic country ahead of us on tech, the UK could immensely benefit from its talent, ideas, and entrepreneurial spirit.

The [Global Talent Visa](#) aims to entice leaders in academia, the arts, and technology. It requires the endorsement and review of Tech Nation for those on the [digital technology track](#). After being the endorsing body for the visa for nearly a decade, Tech Nation [lost its government funding](#) and ceased operations on [31 March 2023](#), throwing the future of the scheme into question. Tech Nation was acquired by Founders Forum and [relaunched](#) in October of 2023. They have agreed to continue running the visa programme through the [end of 2024](#) at minimum. The Home Office will be assessing the new Tech Nation's suitability to continue running the programme, but the visa's future remains uncertain.

With the Global Talent Visa in flux, the [Innovator Founder Visa](#) provides a similar pathway for startup founders to come to the UK. The visa requires an endorsement from one of several other endorsing bodies, and applicants face higher scrutiny from the Home Office. There are only a small number of endorsements available, and each endorsing body can come with their own requirements – including purchasing services from the endorser. Founders often struggle to convey the complexities of their work to non-experts and can face rejection as a result.

Recommendation: Urgently clarify plans for the Global Talent Visa fix and simplify the endorsement system for the Innovator Founder Visas

The Government should rectify issues with the Global Talent Visa and the Innovator Founder Visa. It should immediately clarify its long term plans for review and endorsement of the digital technology track of the Global Talent Visa, including the new Tech Nation's role.

The Government should also create clearer pipelines to endorsement for the Innovator Founder Visa through case studies and examples of how to convey your work in your application as well as best practices each endorsing body must use as they scrutinise applications. While each endorsement body can have their own requirements, the Government should create guidelines that explain what these can and cannot be so as to minimise the potential burden of proof placed on applicant founders.

The Current Spinout Process Struggles to Unleash Home Grown Talent

The UK has a globally envied university sector, including four of the world's top ten universities. Despite this, the overall consensus in the startup ecosystem is that the UK urgently needs to get better at capitalising on the innovation unlocked by university research. University spinouts are vital to the success of the UK's deeptech ecosystem and are central to driving innovation, growth, and the global attractiveness of UK universities.

Currently too many academics and students who wish to commercialise their research or "spin out" into a business face unnecessary barriers to doing so. This process varies widely between universities. Some are regarded as very founder-friendly. But at their worst, spinouts and their founders can be badly supported by universities, which can directly impact their ability to raise funds from VCs. This is well documented, most prominently by the spinout.fyi database, which aims to improve the founder experience and increase transparency of spinout processes.

AI spinouts are part of a new breed of university spinout. Typically, AI spinouts are more nimble and need to get to market quicker than more traditional spinouts – such as pharmaceutical research. And there are more of them. Anecdotally it seems some universities have struggled to support these spinouts.

During our discussions, AI spinout founders and investors told us their main frustrations with spinout processes included: universities overvaluing IP and insisting on taking a high equity stake – both of these can greatly impact a startup's ability to raise future funding – as well as bureaucratic and lengthy negotiations. Founders have reported this process can take up to a year to complete.

These frustrations are reflected in wider numbers. In the last decade, the average stake taken by UK universities into spinouts was 24%, though the mean stake for 2022 was 17.8%. This is far higher than US universities. Notably MIT, a university world renowned for the success of its spinouts, can take no equity at all. Average UK university equity stakes mean spinout founders are frequently made minority shareholders from day one. This makes raising future finance difficult. Many founders also told us they struggled to reinvest profits into their business due to overly difficult IP licensing or royalties. It is common for universities to retain ownership of IP and, when they do, spinouts must access the IP needed for their businesses through licensing agreements.

Further compounding spinout founder concerns is the widespread perception that there is too much of a power imbalance between the university and would-be founder. Typically negotiations to spin out are run through a university's Technology Transfer Office (TTO). Terms for these, or even an explanation of the process, can be hard to pin down. Many founders and investors cite this as a system that perpetuates power imbalances between the universities and spinout founders. TTOs have the legal and business infrastructure to negotiate while founders trying to spin out often lack the resources necessary to go toe-to-toe in these negotiations, often because the founder is still working a full time job at the university. Founders also told us they often struggled to access professional advice. Costs for legal counsel or business advisors either need to come out of the founder's own pockets, be funded by raising capital before finalising terms with the TTO, or be covered by professionals who are willing to offer pro-bono services or defer their fees. Achieving any of these can be quite challenging for fledgling entrepreneurs.

Recommendation: Simplify the spinout system by reforming how TTOs operate and create a two-tiered model for university equity stake

Government should push universities to make the spinout process more standardised and transparent. This means reforming TTOs. A model for reforming TTOs is the Founder's Choice model from Imperial College London.

Founders wanting to spin out should be given the option to choose between two different models. In option one, the university is light-touch and takes a small equity stake based on how much support they have given to create the IP. In option two, the university offers a support package and, in return for this extra support, takes a higher equity share.

Issues Affecting Access to Compute and Data Infrastructure

Buying 5,000 GPUs from Nvidia was viewed by founders as good for the present. But the same founders warned that Government should not only focus on the current paradigm of computing and instead look also to the future.

The pace of AI innovation is, to some extent, compute-governed. Compute dictates the speed at which AI startups can innovate. Without access to compute, an AI startup is not viable.

But compute is expensive. So it is not surprising that many founders we spoke to felt the UK needed to do more to support their access to state-of-the-art compute. Although startups viewed this as a priority, there was a lack of consensus on the Government's role in tackling this as well as how future-focused Government's priorities for compute should be.

The UK's Current Compute Capacity Offer Isn't Enticing to Startups

Overwhelmingly, startups wanted one thing more than anything else when it comes to compute: access to cost-effective and readily available compute capacity. And they did not care who provided it – government, private companies, or otherwise – so long as the agreements are equitable. A market for compute exists, but some of the UK's AI startups feel they need much more to compete internationally.

Compute is incredibly expensive and demand outstrips supply. AI startup founders told us the cost and access to compute power and data sets are two of their most significant drains on resources. Forthcoming TBI research estimates that the average GPU costs around \$20,000, while a more cutting-edge GPU, the NVIDIA H100, averages at \$30,000. This cost is so significant that Andreessen Horowitz research estimates that some companies spend up to 80% of their total capital raised on compute costs

The availability and cost of compute affects both established players and pre-seed AI startups though it has an outsized impact at the earlier stages. In 2023 Sam Altman, CEO of OpenAI, described the computational costs of running ChatGPT as "eye-watering" – and it is estimated to cost approximately \$100,000 per day or \$3 million per month – to run on Microsoft's Azure Cloud.

Second, our public compute is not a competitive option for startups as the UK is falling behind. By the government's own research: the UK went from third in global compute capacity in 2005, to 10th by 2022. As of June 2023, according to private monitoring by The Top500 Project, we seem to have risen slightly – Top500 considers the UK to be 6th, but we are still significantly behind countries with competing AI ecosystems including the US – with 46% of global compute capacity, Japan – with 12.5%, China – 9%, Germany – 4.4%, and France – 3.3%. The UK has recently proposed a few options that increase our compute power like the plans to achieve exascale compute capacity by 2026 in Edinburgh and the national AI Research Resource

in [Bristol](#). But both are seen by startups as [insufficient](#) and will struggle to keep up with the rate of innovation. More than one founder expressed the concern that these proposals would become failed government projects because of how quickly they could go obsolete.

Third, more startups want to be able to access private compute options as quickly as possible. Many of the UK's AI startups have opted to build off existing AI infrastructure – usually via APIs or cloud infrastructure. High profile cash-for-computing deals, such as [Microsoft's investment into OpenAI](#), sent ripples around the UK's AI ecosystem. Some founders told us these deals made them concerned that their smaller ventures would not be prioritised if they did not possess more formalised relationships with bigger players. Though most founders were unfussed as long as they were able to access compute they needed at a reasonable price. Cost aside, commercial access to compute through the cloud has an advantage in that it is not gated – there are no access forms to fill out or queues forming in the way they do around university or research institutions. If prioritised for smaller startups, better access to commercial compute can help startups build, test, and get to market their most innovative ideas.

Recommendation: Grow the compute menu by increasing national compute capacity, getting better compute partnerships, addressing supply side barriers, and preparing for the next era of compute

To successfully compete on AI, the UK needs a clear and effective menu of options that our startups can maximise for compute that tackles capacity from all angles – public, private, current, and future.

To tackle current compute from the public sector, the UK should urgently seek to increase its GPU purchases. The aim should be to reach the equivalent of 30,000 GPUs by 2026 – accounting for potential delays as leading developer NVIDIA currently has an 8-month backlog – so the UK has a small state compute capacity that is competitive with private sector options. The UK should also ensure that it makes its public sector compute capacity as easily accessible for startups as possible. This can be achieved by ensuring the National AIRR in Bristol provides compute easily to startups, including through cloud and API options or subsidised access.

To tackle compute from a private sector partnerships angle, the UK should focus on ensuring regulation and Government foster private partnerships that enable startups to take advantage of Tech Giants' cloud capacity – through APIs and cloud access. One way to do so could be to negotiate a deal with Tech Giants that gets them to install GPU capacity in the UK. Another option is to encourage startups to create collective partnerships that can deal with Tech Giants to ensure greater access to greater compute power.

The Government should also address the supply side barriers to the generation of new compute capacity in both the public and private sector – by working with providers to ensure that planning, tax incentives, and other barriers are being clearly addressed.

And to tackle the issue of future compute, the UK should have a regulatory and R&D environment that is friendly to quantum and other compute alternatives – something we discuss more deeply in the next section.

The UK Needs To Leapfrog Competitors in Compute

Alongside the immediate need to improve access to state-of-the-art compute, startups also hoped that the UK could reorient R&D to focus on potential breakthroughs in the next generation of computing, such as [quantum](#) and [neuromorphic](#) computing. Some startups – especially those involved in the quantum computing space – were concerned that the UK's strategy put forward in the [Future of Compute](#), the AI White Paper, and the Frontier AI Taskforce were not forward-focusing enough when it comes to compute.

[Reports](#) that the Government has been considering buying 5,000 GPUs from Nvidia were viewed by founders as good for the present. But the same founders warned that the Government shouldn't only focus on the current paradigm of computing and instead look also to the future. Not only could compute costs fall over time, but technical breakthroughs could render national compute clusters outdated, unless they are rapidly updated. The importance of R&D investment on the next generation of compute – which is unlikely to be today's GPUs if post-silicon chips or commercialised quantum computing advance and become implementable – was also highlighted.

The UK has a unique opportunity to build deeptech infrastructure that can help it leapfrog past our competitors on compute, even if we are unable to currently do so. Forthcoming TBI research estimates that the UK has the third highest levels of investment in quantum computing globally. If the UK was able to harness the compute power of quantum computing and other alternatives, the UK would likely be the home of the next digital age's frontier businesses.

Recommendation: Create new R&D initiatives for compute alternatives and develop new acceleration programmes for quantum technologies

While catching up in traditional compute is key, the Government must ensure it does not fall behind on next-generation computing that may change requirements for the AI industry and broader tech sector in the years to come.

Government should support initiatives on R&D focussing on the commercialisation of new compute alternatives, such as [neuromorphic computing](#). Government should also develop new acceleration programmes for quantum technologies that can help the UK's nascent quantum scene capitalise on market opportunities. Additionally, the Government should also produce a directory of existing infrastructure accessible to industry across the UK - to help new players find low-cost avenues for developing quantum, deeptech, and other emerging technologies. Additional funding could go into [ARIA](#) – the UK's research agency focusing on the production of transformative technological change – to give the best chance of developing new computational paradigms.

Collaboration with like-minded nations on quantum technologies such as Japan is also important. The EU's [Quantum Communication Infrastructure](#) is a helpful model to follow where agreements and shared standards allow for quantum collaboration between nations on sensitive quantum technologies.

Issues Affecting Regulatory Compliance

Startups do not want to face a brand new compliance regime as they scale to different jurisdictions.

Too Much of a Focus on AI Safety Risks Overregulation and Disempowering Regulators

AI safety has been widely discussed since the Government's announcements of a global AI Safety Summit. Concrete harms like data breaches, the proliferation of disinformation, and hallucinations or AI manipulation are of concern to AI founders. But they also believe that current and early-stage AI innovation are best poised to tackle these issues – making it easier to contain data breaches, detect fake content and target the tactics used by disinformation actors, and mitigate hallucinations. Thus, they are acutely concerned that safety regulation that is too rigid could stifle needed development in AI safety technology.

The vast majority of startups we interviewed felt the risk of focusing too heavily on AI safety – regarding frontier AI specifically – at this stage could stifle nascent technologies with procedures and regulations that only work for larger generative AI firms, improperly affect everyday AI that isn't a large language model, overlook problems that hinder the growth in UK AI innovation, and make it harder to attract the right talent.

Founders overwhelmingly told us that, in their opinion, many of the hardest problems to solve in AI safety would likely need iterative innovation from startups whose mission and vision focus on tackling these problems of misinformation, disinformation, and other harmful outcomes. Ultimately, founders wanted to ensure that tackling these negative outcomes does not get in the way of safe and oftentimes unrelated AI innovation.

Many founders also pointed to the high-risk, low-risk designations within the EU's AI Act, the proposed text of which is a clear example of how tackling concrete harms improperly could lead to the overregulation of needed services. For the UK's AI startups, innovation in a high-risk field does not automatically translate into high-risk use – something that is not clearly relayed in the EU AI Act's approach which designates broad categories like AI used in education, public services, or critical infrastructure as high-risk. A categorization system based on broad sector distinctions discourages iteration on a product or building off other systems. In areas like climate change or medical diagnosis, this could make revolutionary and life-saving outcomes less possible.

Lack of clarity from regulators, insufficient technical expertise, and inflexible processes are all common complaints from startups that could also lead to the improper regulation of AI and the failed execution of the sectoral approach from the AI White Paper. Many founders also questioned whether regulators could give meaningful guidance on AI and the implementation of the existing principles in the immediate future – acknowledging that significant resources would have to be attributed to each regulator to get up to speed and stay up to speed on AI, deeptech technologies, and their advancement. This is a trend echoed by how

regulators like the Food Standards Agency have announced they might not have the resources to help startups – something that will only be worsened by an heightened and AI-fueled rate of technological innovation.

Recommendation: Successfully implement the sectoral approach to AI by scaling up regulator capacity as quickly as possible

The adaptable, proportionate approach set out in the AI White Paper would ensure that the UK targets harmful outcomes and can address many of the safety concerns associated with generative AI. Foundation models are just one of many types of AI technologies and it is crucial that the Government does not bow to external pressure and create a regulatory framework designed for just one area of AI.

But in order to ensure that the sectoral approach succeeds, the Government needs to ensure that regulators have the correct tools in their toolbox – and in the right quantity. The UK risks over-regulating or improperly regulating AI if it does not support regulators to obtain the skills, education, staffing, and collaborative environments necessary for a principled and targeted approach to context-specific AI regulation. This means providing regulators with resources like technical staffing, training on a diverse set of AI technologies specific to their sectors, and avenues for quick and centralised collaboration.

Scaling up regulator capacity also includes auditing the current processes within the UK's regulators and creating clear benchmarks for response time, what is clear guidance, and how to engage startups and scaleups. A strong first few steps to achieving this include developing the central risk function for the Office for AI as quickly as possible and finding actionable items to capitalise on from the Department for Business and Trade's investigation into smarter regulation and the regulatory landscape. Scaling up also requires the successful execution of the multi-regulator, multi-sector AI sandbox from DSIT's White Paper, which we discuss further on in the paper, as it is a definitive avenue for collaboration that if done right can be transformative for UK AI.

The Government should set up the central risk function as quickly as possible to ensure that regulators are able to best coordinate, source information, and request feedback on how they are regulating. For startups that often have limited resources and capacity, it is vital there be an established body that is resourced sufficiently to monitor what regulators are doing and whether their actions are aligned with the White Paper.

Regulatory Uncertainty is Hurting AI Startups

Much of the regulatory uncertainty AI startups face – and that their founders cited – was due to lack of clarity: over how AI can best comply with existing regulation, over future regulation, and over standards and definitions.

Many of their concerns were around how to clarify existing regulations to explain what current standards would look like for AI startups. On the list of regulations they needed clarity on were data protection, copyright, competition, and online safety law.

Another issue we heard was how regulation can be improperly enforced and diffused across the stack. Specifically, founders worried that without clear definitions that differentiated the start, middle, and ends of the [AI stack](#), businesses could be likely to mistrust one another and only innovate on their own vertical stacks. Some describe this as a problem defined as a lack of clarity between developers and deployers. Others argued that AI technologies were much more nuanced and often are a multi-developer, multi-deployer, multi-consumer technology.

Many of these concerns echo a larger theme from [previous Startup Coalition work](#): startups want rules around liability that are clear, proportionate, and cover material or physical outcomes or defined issues of consumer protection, regardless of where they are on the AI stack. In a [previous survey](#), 94% of AI startup founders believed a lack of clarity on liability would discourage entrepreneurship within the sector – something that was repeated by startups time and time again during this project.

Recommendation: Work with regulators to issue AI-specific guidance for intermediary liability, digital competition, copyright, and more

In order to ensure our AI startups feel comfortable innovating, regulators need to ensure that startups know exactly how regulations affect their business practices. While this is commonly delivered through regulator guidance, many of these regulations need to be clarified immediately to ensure that all businesses – not just AI startups – can understand how compliance works across the AI stack and how current regulation affects them.

For data protection, this includes AI-specific guidance on GDPR and the Data Protection Bill. For copyright, this includes guidance on how to handle copyright content, impersonation, forgeries, and deepfakes. For competition, this includes an explanation of how Government is defining nascent AI markets. And for online safety, this is guidance on how the Online Safety Act will work in practice for AI. Further, this includes clarifying intermediary liability for AI, to ensure that all forms of liability are distributed proportionately and so that primary and secondary developers and deployers know what they are in charge of complying with.

Of many worries exacerbating this is the fear of an international patchwork that creates barriers to openness. Many startups want to scale and expand into global markets but often find themselves struggling due to competing regulatory regimes. As a rule, startups do not want to have to face a brand new compliance regime as they scale to different jurisdictions. They would much rather be able to scale smoothly and affordably between nations and regulatory regimes – something that is only possible through regulatory convergence and international cooperation.

AI startups pointed to the current international patchwork of regulations like [GDPR](#) and how they add barriers that inhibit innovation. Many founders cited the GDPR [data controller requirement](#) as an unnecessary and often impractical step for startups. Some even stated it was a reason they have not scaled into the EU.

Recommendation: Work with like-minded global partners to pursue international regulatory convergence post AI Summit

Ensuring some level of regulatory convergence and cooperation with global regulators will be essential to deliver on the UK's high level principles and support of innovation for startups. It is right that the Prime Minister wants the UK to play a leading role in creating global AI guidelines – and it is fantastic that the UK is hosting an AI Safety Summit in November. The UK has a strong track record in leading global conversations on AI through our founding of the G7's Future Tech Forum in 2021, and our role in the Global Partnership on AI (GPAI) as well as commitment to the OECD's AI Principles.

But we need to engage more with international partners, such as the US, Australia, the EU, and Japan – countries and jurisdictions that are aligned with our values but may lack the technical and operational ability to guide AI alignment – to offer partnership opportunities. Ensuring that our rules are competitive on a world stage will not just help AI startups in the UK scale to other markets, but also international AI startups help find a second home here in the UK.

Forgetting AI's Diversity Risks Stifling Specific AI Technologies

What constitutes transparency, interpretability, or explainability was of significant concern. As the US National Institute of Standards and Technology (NIST) [put it](#), “typically, there is a tradeoff between AI/ML accuracy and explainability.” The UK's AI startups and founders worry that appreciation of this tradeoff will not necessarily be reflected in risk management thinking or AI regulation.

For this reason, overemphasis on explainability could be detrimental to the development of more advanced AI models, which, if improperly regulated, might have to be “dumbed down” in order to comply. Additionally, AI businesses often differentiate themselves based on their algorithms and machine learning – their

mechanics themselves can be considered critically commercially sensitive information that founders worry could be made publicly available as part of future regulatory compliance.

There is also debate blossoming in the open-source community about how AI regulation will affect the ecosystem. A frequent concern within the community is that new regulation could harm their ability to innovate. Open-source AI founders argued that regulations that prevent openness or open-source AI will harm competition amongst AI businesses. One founder best put it as there being a clear danger of closing the space off to new innovation if we overregulate platforms such as Hugging Face and GitHub – both of which act as repositories and avenues for collaboration. Open-source AI development in this sense is often used by founders to save time, build off each other's work, and ensure that others can do the same. One founder cited the example of Wikipedia – an open-sourced encyclopaedia – which has become a widely-used and trusted source many rely on as an entry point into – but not the be-all-end-all source for – new topics. Open-source coding repositories can be a great and cost-effective way to build tech with the help of others.

These same open-source founders worried that the debate around AI regulation would fail to learn from previous debates that have affected the open-source community, like the discussions around smartphone ecosystems, cyber resilience in the Internet of Things, and more. If there was one takeaway that they wanted made abundantly clear – open-source is a way AI founders can easily compete with larger competitors and will continue be an important source of AI innovation, so long as Government helps protect its existence.

The Multi-Regulator, Multi-Sector AI Sandbox Is Needed Immediately

Many AI startups found the idea of a sandbox as described in the UK's AI White Paper as a way to help streamline compliance, so long as it allowed for early stage startups to work with the government to ensure their success on market. Startups struggle with the ability to dedicate capacity and personnel solely for compliance. And they struggle with being able to tackle too much compliance as they scale. Many of the founders we talked to wanted to tackle issues when they were in their early stages – but not necessarily immediately – to ensure that they could get a balance between the innovation they need to succeed and the basics they need to scale safely.

The UK's AI White Paper proposed establishing a multi-regulator sandbox as described in Sir Patrick Vallance's original recommendations, though it set out a focus to pilot the sandbox in one sector with high AI investment and then expand capacity. The White Paper suggested the full multi-regulator, multi-sector sandbox would not be built until after 12 months had passed since the publication of the White Paper as part of the third stage of implementing for the UK's new regulatory framework for AI. Though this is likely delayed as the steps that were intended to come before this have not yet been taken. The first stage of the new framework was supposed to be done within six months of the AI White Paper's publication and include an AI regulation roadmap. Seven months on, this has yet to be published.

When we discussed the sandbox proposal with AI startups, there was widespread optimism that this would significantly improve startup capacity to both comply with regulatory requirements and bring innovations to the market. Some founders worried that the speed proposed was not quick enough, however, citing how crucial sandboxes have been to unlocking startup innovation in highly regulated sectors such as FinTech. They worried that if Government couldn't deploy the multi-sector, multi-regulator sandbox quickly enough, it would be unable to keep pace with technological development in AI.

AI sandboxes need to be developed in a way that truly supports innovation. Often startups find that sandboxes, while at surface level are intended to support innovation, end up being a tick-box exercise without sufficient regulatory buy-in. Many policies designed to support startups fail when regulators are not fully committed. But where there is real commitment, such as how the FCA's FinTech sandbox worked originally, the results can be transformative.

Recommendation: Accelerate regulatory sandbox plans and ensure introduction of central cross-regulator AI sandbox

The Government's plans for regulatory sandboxes should prioritise speed of set up and operation, as well as making sure regulatory buy-in is embedded. It is important that startups and investors see going through the sandbox as a mark of legitimacy, as well as a signal that they are on the way to getting to market. This will increase overall industry engagement with regulators and bolster industry-regulator relations.

On top of this, the Government should be more ambitious and introduce the Vallance review's and White Paper's cross-regulator AI sandbox as soon as possible. Many AI startups will likely end up disrupting multiple sectors, needing multiple regulatory input. And many regulators who have traditionally not had to think too deeply about AI tech – for example the Food Standards Agency or the Care Qualities Commission – will increasingly have to do so.

The cross-regulator AI sandbox is primed to take on these hard cases and bring together regulators to smooth a startup's path. This is similar to other successful schemes, such as those in Estonia like their most recent U-Space Sandbox that went from announcement to launch in just two months – May to June 2023 – and coordinated the Estonian Transport Administration, the Estonian Business and Innovation Agency and the Tartu Science Park Foundation.

Looking to the Future

This roadmap is only a start towards tackling the needs of the UK's AI startups and AI ecosystem. We also need to have an eye on future challenges. A cross-sector focus on making the UK's AI startups viable international contenders will only go so far to actually make them such.

We need a specific focus on key AI niches. It is imperative that the UK Government appreciates what these niches are, the challenges facing them, and how we can leverage these niches to build strategic advantage.

Our AI HealthTechs are making it easier to diagnose cancer and hard-to-detect but debilitating diseases but can often face difficulty being procured by Government and navigating through the NHS. UK AI ClimateTechs are tackling crop efficiency, energy, waste logistics, and rewilding but can struggle when it comes to joining Net Zero initiatives. AI in human resources is ensuring workers' rights are at the forefront of businesses' minds when it comes to tech adoption – though there are many questions about how AI and labour will work in practice. And generative AI's use in art and creative industries is leading to new questions on copyright, but discussions about copyright and intellectual property need to be updated for an AI age.

The UK can lead the world in the AI revolution – harnessing the immense benefits to our society, public services, and economy, much of which being driven by our startups. It is also right that the UK seeks to play a key global role in ensuring AI develops safely and in line with our values. Ensuring that AI startups are central in policymakers' minds as we seek to achieve our national AI ambitions will be as vital in the years to come as it is right now.

About the Authors

Startup Coalition

Startup Coalition, formerly The Coalition for a Digital Economy (Coadec), is an independent advocacy group that serves as the policy voice for Britain's technology-led startups and scale ups. It was founded in 2010 by Mike Butcher, Editor-at-Large of technology news publisher TechCrunch, and Jeff Lynn, Chairman and Co-Founder of online investment platform Seedrs.

Startup Coalition fights for a policy environment that enables early-stage British tech companies to grow, scale and compete globally. It has over 2500 startups in the Startup Coalition network and have been instrumental in building proactive coalitions of businesses and investors on issues that are integral to the health of the UK's startup ecosystem.

Startup Coalition's recent work has seen many successes, including the design of the Future Fund during the pandemic, new tech-focused visas and SEIS expansion.

Onward

Onward's mission is to develop bold and practical ideas to boost economic opportunity, build national resilience, and strengthen communities across all parts of the United Kingdom. Onward's vision is to address the needs of the whole country: young and old, urban and rural, for all communities across the UK – particularly places that have too often felt neglected or ignored by Westminster. Onward believes in an optimistic conservatism that is truly national – one that recognises the value of markets, supported by a streamlined state that is active not absent.

The Onward team has worked at high levels across Westminster and Whitehall. They know how to produce big ideas that resonate with policymakers, the media and the wider public. They work closely with policymakers of all parties to build coalitions of support. Most importantly, they engage ordinary people across the country and work with them to make ideas a reality.

Onward's Science Superpower Programme explores the strategic challenges, opportunities and trade-offs that the government and science & tech communities face, as well as the action needed to achieve the goal of making the UK a "science & technology superpower".

Tony Blair Institute for Global Change

The [Tony Blair Institute for Global Change \(TBI\)](#) works with political leaders around the world to drive change. It is a not-for-profit organisation that provides expert advice on strategy, policy and delivery, unlocking the power of technology across all three. Its mission is to support leaders to build more open, inclusive and prosperous countries for people everywhere.

TBI provides expertise in several sectors, including health care, agriculture transformation, climate and energy policy, and economic development, and works with a wide range of partners, including governments, bilateral and multilateral institutions, private corporations, academic institutions, foundations, and philanthropists who share its commitment and ambition.

