TCG UK Tech Cluster Group

ECOSYSTEMS OF INNOVATION

Four Big Ideas to Harness Tech's potential across the UK

CONTENTS

ECOSYSTEMS OF INNOVATION: FOUR BIG IDEAS TO HARNESS TECH'S POTENTIAL ACROSS THE UK

Why tech ecosystems – and why now?

New digital technologies have the potential to drive business creation, benefits in productivity and promote social and economic inclusion for citizens. But this will not happen by itself, and will not happen with national-level regulation and programme delivery alone. We need to mobilise partnerships at the grassroots – where firms can start and scale, people can grow their skills, and the relationships and value chains underpinning innovation across sectors can flourish.

In the last decade, digital policy has been dominated by a suite of centralised, top-down initiatives that have had patchy engagement with local tech communities and their partners.

Renewed interest in the role of digital tech in innovation policy is welcome, but risks being hampered by a lack of understanding of how place-based digital innovation does and can work - and missing out on the network affects of relationships and spill-overs. This is how businesses grow, people build careers and 'places' succeed.

A successful Government can realise the benefits of listening to and partnering with those grassroots organisations who know how to effectively engage businesses, education partners and academic institutions. Science, Innovation and Technology policy must recognise that growth and opportunity are built through partnerships and do not occur in the abstract. Equally, skills policy is enhanced – and talent unlocked - for learners and businesses through close coordination with industry.

Local tech ecosystems can help Government and local leaders to design the right interventions for success. UK Tech Cluster Group (UKTCG) organisations exist because the business base of our local economies feel we are needed. While we work constructively with Westminster, we explicitly represent the whole of the UK outside of Whitehall and the City of London.

In setting out 'Four Big Ideas' for the next government to harness tech's potential across the UK, we are ready to help ensure new technologies unlock the potential of every business, every person, and every place. If we want our sector and our local communities to go far, then we need to go together.

Four big ideas to harness tech's potential across the UK

A globally competitive tech talent pipeline in every region

Ensuring the economy delivers opportunity for all and drives social mobility by unlocking tech talent.

Driving digital innovation at the foundations

Ensuring every business can understand and benefit from the opportunities which tech brings.

A UK Innovation Policy which gives every place a chance

By embedding digital tech at the heart of regional development strategies and incentivising collaboration.

Mobilising ecosystems to help businesses to start and grow

By recognising that 'place' matters, and tech communities can underpin the success of devolution.

UK TECH CLUSTER GROUP

The UK Tech Cluster Group (UKTCG) brings together the grassroots organisations supporting our regional digital ecosystems to thrive. With over half a million monthly engagements with businesses and partners across the nations and regions of the UK, we work daily to drive tech sector growth to underpin digital innovation for our economies.

Harnessing the power of tech for smart, sustainable, and inclusive economic growth in all parts of the country, requires active grassroots engagement. We support our local and regional digital ecosystems across four priority areas:

Skills – working in partnership with businesses, learners, schools, colleges, universities and other institutions to grow the digital skills base of our ecosystems.

Digital Adoption – ensuring businesses across our regional economies are supported to absorb and benefit from digital technologies.

Innovation in Technology – harnessing R&D and business growth by ensuring digital tech assets and new and emerging technologies drive productivity in key sectors within our clusters.

Start-Up and Scale-Up Tech Businesses – enabling the creation of more digital businesses within our clusters and supporting our companies on their growth journey.

A GLOBALLY COMPETITIVE TECH TALENT PIPELINE IN EVERY REGION

The UK can leverage the grassroots networks in its nations and regions to build a strong and robust pipeline of tech talent for competitive advantage. This needs Whitehall to trust and support local innovation in the skills system.

New technologies change the nature of all jobs – including those in the digital economy itself. So it is crucial for educators and busiensses to work in partnership for shared success. In tech, we see an urgent need to encourage an understanding along companies to be part of the solution to finding opportunities for early career people. Grassroots cluster organisations can help to coordinate this in a meaningful way, and Government can help our SME base by providing appropriate incentives to take on new talent so we can match more learners leaving skills programmes, to industry roles.

The current design of the skills system simply does not support this. DfE and DSIT must also invest in matching graduates from Bootcamps and similar remote learning initiatives to businesses, to help them take on new talent. Acquiring digital skills is still hugely beneficial for workers – it helps them to move more easily between market verticals when needed, and long-term wage trends beat the UK average[1]. This should be delivered in partnership between DfE, the locally accountable authority for Local Skills Improvement Plans (LSIPs) and grassroots tech industry partners.

Digital Skills Bootcamps have supported more people to acquire skills to start their journey in tech careers. However, the flow-through to roles in industry is less efficient than it might be, due to a lack of incentives for prospective employers to take on someone at an early and unproven stage. Finding appropriate industry placements for T-Level learners is also a challenge. Tech SMEs are typically new companies who do not have established HR functions, strategic relationships with and deep understanding of the FE system, or sufficient capacity to support students effectively.

[1] Sifted (2022) In data: The state of UK Tech salaries in 2022: https://sifted.eu/articles/uk-tech-salaries-2022-brnd/

DfE and DSIT must engage with tech SMEs more closely in designing a reformed Apprenticeship Levy. Most of the tech sector are not unicorns, or companies with huge valuations looking to scale – but they are crucially important to the people who work in them, the customers they serve and the communities in which they are based. Actively supporting our small, innovative employers to create roles in their organisations will help to deliver sustainable, high-paying jobs.

Skills programmes are often designed and deployed without sufficient engagement or connection with the demand-side. It is not surprising that only 4% of employers are spending full Apprenticeship Levy[1]. UKTCG members work in partnership with businesses, learners, schools, colleges, universities - and commercial training providers, platforms, and intermediaries - to grow the tech skills base at all levels across our ecosystems. We can assist in design of this policy and in its deployment.

[1] City and Guilds (2023): Only 4% of employers are spending their full Apprenticeship Levy funding https://www.cityandguilds.com/news/february-2023/only-four-per-cent-of-employers-are-spending-their-full-apprenticeship-levy-funding

Government needs to help address the ‘Class ceiling’ in tech at local level by being much more ambitious about promoting digital careers.

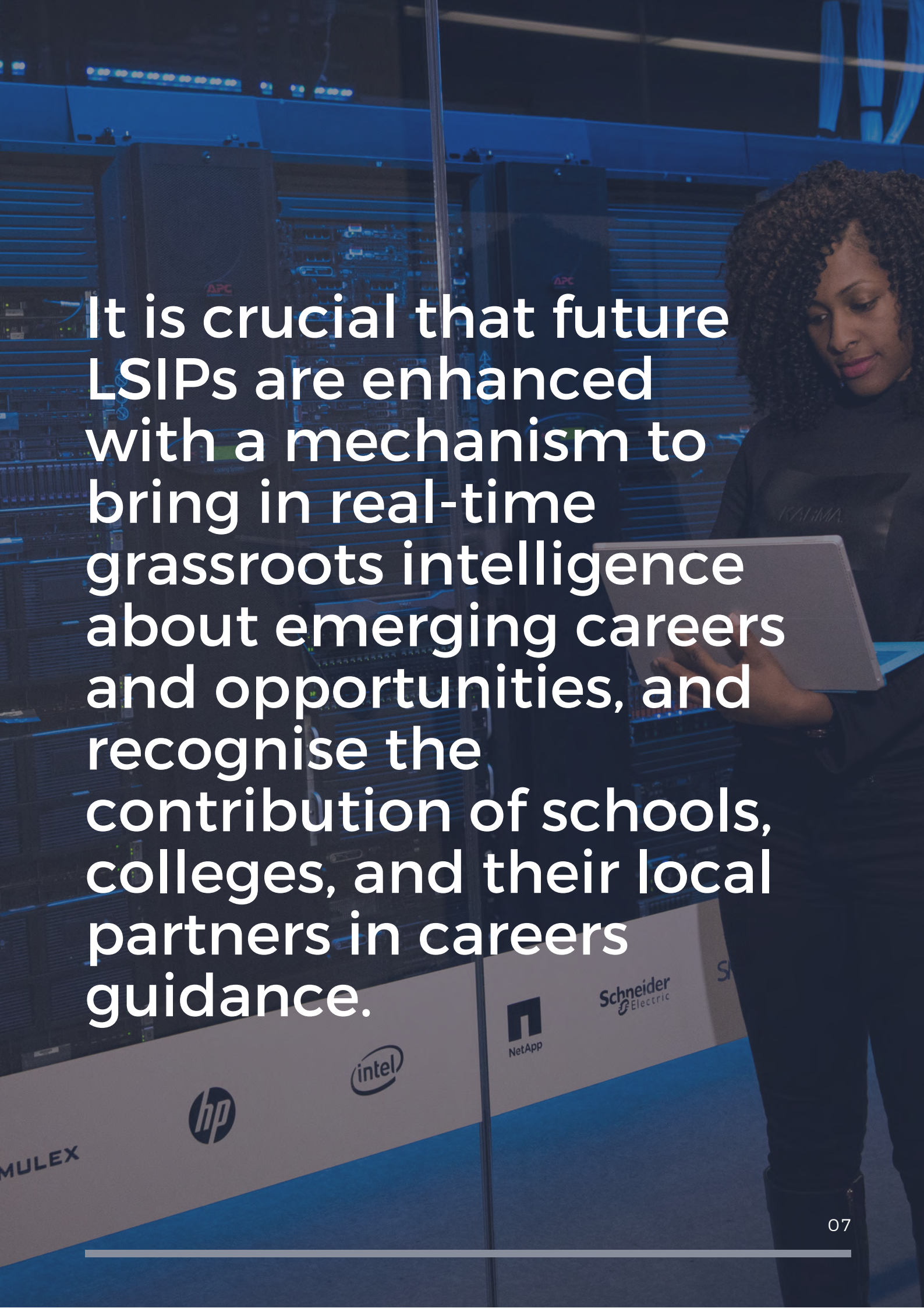
Schools and local FE colleges are important and often overlooked partners in setting people on appropriate pathways.

UKTCG partners work effectively alongside schools, industry, and local leadership; ensuring that education and business collaborate better and ensure young people are not only aware of, but inspired by the opportunities which the economy is creating in their communities. But we cannot forget that not all young people in our communities are able to access resources and advice about emerging industries through their home environment or networks[1].

It is crucial that future LSIPs are enhanced with a mechanism to bring in real-time grassroots intelligence about emerging careers and opportunities, and recognise the contribution of schools, colleges, and their local partners in careers guidance. Central Government support for tech skills has typically been piecemeal, selective in geographic coverage and based off-the-shelf models with limited ambition and impact (such as Digital Skills Partnerships or Bootcamps) which do not intervene in mainstream education provision. We need solutions that are not short-term, with limited commitment to long-term investment at the regional level, so devolution succeeds. While these may suit Whitehall departments, they do not effectively deliver for people and our businesses.

For adults with prior experience looking for new roles or to upskill, we need national support to realise their potential as the economy changes. In June 2023, the House of Lords Select Committee found that 5 million adults are at risk of being acutely under-skilled by 2030[2]. It is crucial that we encourage digital inclusion across the economy and society, and helping firms and workers to innovate together – dealing with the acute issue of early labour market exist which had only grown in the last decade, and been exacerbated by technological shifts.

[1] Local Government Association (2021): https://www.local.gov.uk/parliament/briefings-and-responses/tackling-digital-divide-house-commons-4-november-2021
[2] House of Lords Communication and Digital Committee (2023): https://ukparliament.shorthandstories.com/digital-exclusion-comms-digital-lords-report/



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A GLOBALLY COMPETITIVE TECH TALENT PIPELINE IN EVERY REGION

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By working with the UKTCG and our partners, a successful Government can ensure tech policy positively drives social mobility by unlocking our tech talent. This requires aligning efforts to ensure the economy delivers opportunity for all, and investing in coordination and support. Grassroots organisations understand when partners are overstretched and under resourced – but also, the collective difference we can make. As a sector, we need better ways to incentivise tech businesses to 'pay it forward' - playing a role in education, and building relationships with schools and colleges. This will deliver a better regional skills system and enable to UK to scale-up examples of grassroots good practice and act on insights. Government should invest in and learn from local initiative .

[1] House of Lords Communication and Digital Committee (2023): https://ukparliament.shorthandstories.com/digital-exclusion-comms-digital-lords-report/

A GLOBALLY COMPETITIVE TECH TALENT PIPELINE IN EVERY REGION

Opening access to tech careers is everyone's business – but Government must decide whether it will back local partnerships to deliver for their communities and grow a globally-competitive tech talent pipeline in every region. UKTCG organisations are keen to work with Government to ensure the needs of industry and learners informs Whitehall policy in a timely and effective way, which also has the support of our school and college community. To go far on skills, we must go together.

Making the Apprenticeship Levy work for tech SMEs

By engaging them in Levy reform in the next Parliament and helping them create more opportunities for learners.

Driving more demand for tech talent in our SME base

Through providing incentives for SMEs to take on new talent so we can match more learners from skills programmes to industry roles.

More responsive LSIPs with Schools and Colleges as partners

So we build real-time employer demand into LSIPs and effectively engage and support our education community.

Drive social mobility by investing in our grassroots networks

Which help places harness the benefits of bottom-up innovation, particularly in fast-moving and nuanced sectors like tech.

Driving digital innovation at the foundations

Early adoption of digital technology can drive long-term regional productivity uplift [1]. Efforts to do this centrally have largely failed and efforts to do this locally have largely succeeded.

In our work with partners at the grassroots, we hear from local leadership that inclusive growth is a key priority. This is commonly described as ensuring foundational economy firms and people across our communities are not left behind by economic and technological change, but are able to access opportunities and feel the benefits of innovation. It is crucial that people feel the benefits of new ways of living, working, and doing business[1]. UKTCG define successful Digital Adoption as supporting organisations to use digital technology in suitable and meaningful ways. This can include:

- Process transformation helping firms to reform their business model based on the opportunities of new technologies.
- Product and service development ensuring businesses can identify and understand new market opportunities arising from digital adoption.
- Cultural and organisational digital adoption: ensuring businesses are ready to plan and deploy digital transformation, and ensuring young people and partners are aware of and inspired by digital innovation.

[1] CityREDI Blog (2021): Harnessing the Digital Economy: The Role of Early Adoption of Digital Technologies: https://blog.bham.ac.uk/cityredi/harnessing-the-digital-economy-the-role-of-early-adoption-of-digital-technologies

[1] OECD (2023) : Inclusive Growth: https://www.oecd.org/inclusive-growth/#introduction

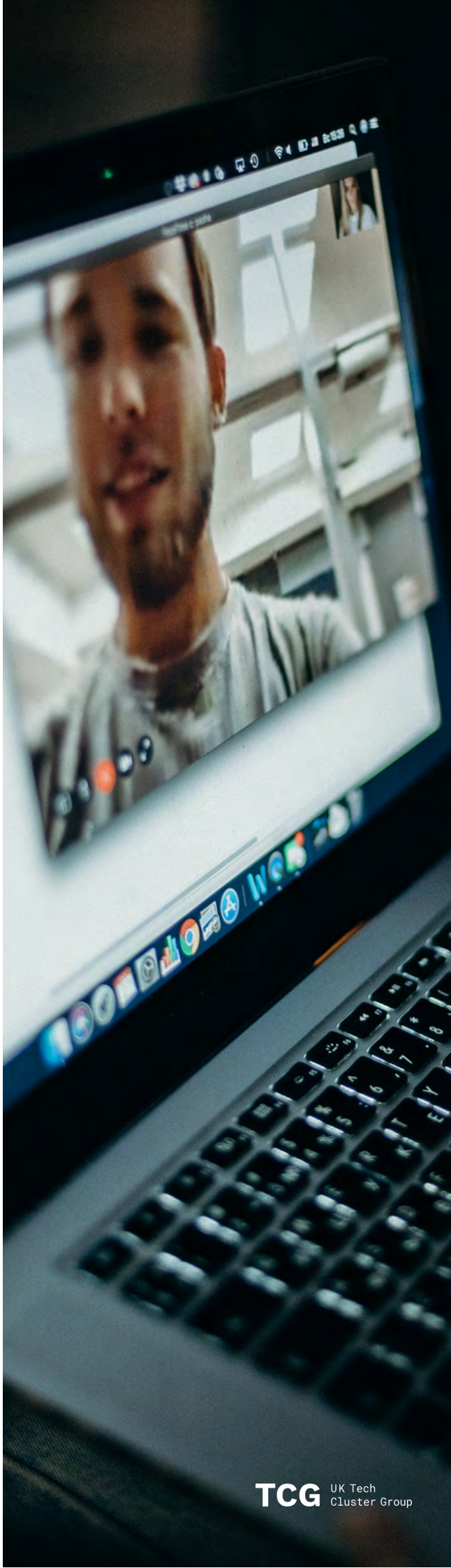
The need to drive productivity through digital innovation has not and will not go away. COVID-19 highlighted a pressing need for many businesses to get better at something – for example, deploying contactless payment or understanding the opportunities of and mechanisms for online sales. McKinsey estimates that COVID-19 accelerated the rate of digital adoption by several years in a few months[1]. This is easier for large firms, but often a huge barrier without support for SMEs.

[1]McKinsey (2020): How COVID-19 Has pushed companies over the technology tipping point and transformed business forever https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

Government must build on successes of pandemic-era digital adoption in designing and delivering a 'Help to Grow successor' which is delivered locally. This will ensure local commissioning and a diversity of providers, to effectively deploy support for an SME base which is often overlooked and is best reached by grassroots organisations embedded locally. The limitations of the national 'Help to Grow' digital adoption initiative were stark – this ultimately failed and closed early, and only reaching less than 1% of target uptake. Government had successful local models of support on which to build[1]. Across the UKTCG during the pandemic, our local authorities worked with central government to rapidly deploy business support grants to those in pressing need. This occurred at rapid pace, and was administered largely successfully by people who knew and understood their business base - working alongside cluster organisations. We feel that Government digital adoption support, must be designed and informed by grassroots intelligence and delivered locally by default.

[1]BEIS (2022) Help to Grow https://www.gov.uk/government/news/final-opportunity-for-businesses-to-access-help-to-grow-digital-scheme

Government and local leadership should co-commission clear pathways for inclusive digital growth by raising awareness of what has worked for similar businesses and where to access support.



Covid showed us that local approaches work, but businesses need to know which peers in their network can help, and what support will be useful. Furthermore, evidence since the pandemic suggests that the number of day-to-day tasks that people need to complete increasingly require tech skills. This is leading to an increase in the number of excluded adults[1] - many of whom are involved in conducting business practices, and all of whom are customers in the local economy.

As LEP functions transfer to Combined Authorities and local government, Growth Hubs' prior role in supporting the tech industry should formally transfer, fully funded, to Cluster organisations. UKTCG members signpost to funded support as much as possible through goodwill and support for our tech community, but a more structured commissioning pathway is needed, to ensure appropriate coordination between national and local initiatives. Currently, central government designate this role to Growth Hubs, who are valued partners but do not have the industry knowledge to do this effectively. Industry-centred support can create markets for tech businesses while also helping foundational economy businesses to identify and obtain the help they need.

[1] Fabian Society: https://fabians.org.uk/wp-content/uploads/2022/04/Bridging-the-Divide-web-file-Fabian-Society.pdf

Government should invest nationally in Leadership and Management training for tech SMEs to help our entrepreneurs succeed. But this must be from people with 'lived experience' of setting up and running tech companies.

While tech adoption initiatives help companies to become more digital, and accelerator programmes support businesses to scale, the majority of viable, trading tech businesses fall between gaps for relevant business support. Increasing the human capital levels of business owners and managers will have a positive impact on productivity[1]. While digital adoption is needed across the economy, it is important to recognise that busy tech SMEs can also benefit from foundational Leadership and Management support - designed in partnership with UKTCG members.

UKTCG represent the entire spectrum of businesses that make up the UK's digital economy - working with and for companies of all sizes, in real communities across our regions. This means working with and for everyone interested in digital innovation – not just the big players with the time and money to engage, but also the UK's digital businesses who are not looking to become a 'unicorn'.

We do this to give voice to businesses that usually don't fit a narrow definition of a 'Silicon Roundabout' tech start-up; but who drive growth, innovate, and create jobs in our communities. However, these businesses which have started and grown in our ecosystems should not miss out on support to build their Leadership and Management capability. Investing in our foundations is especially important in challenging economic times. UKTCG members and our partners are ready to work with the next Government to design an appropriate scheme.

[1] DfE (2023): Skills and Productivity: Estimating the contribution of educational attainment to productivity growth:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1137822/Skills_and_UK_productivity.pdf

Co-design and deliver a Help to Grow successor which is delivered locally

Building on successes of COVID-era digital adoption.

Growth Hubs' prior role in supporting the tech industry should formally transfer, fully funded, to Cluster organisations.

Providing clear pathways for inclusive digital growth, by offering our tech businesses the support they need to succeed.

Invest nationally in Leadership and Management training for tech SMEs.

To help our entrepreneurs to grow, innovate and create jobs in our communities.

A UK INNOVATION POLICY WHICH GIVES EVERY PLACE A CHANCE

Embedding digital tech at the heart of regional development strategies and incentivising 'Distributed Innovation'

Corporates and other large regional investors, working with ambitious tech companies for mutual benefit, is an effective model of place-based economic development that has been utilised in many of our clusters. It can be scaled up massively, and local leadership and central government can play a role in co-designing and encouraging this innovation model to underpin smart, sustainable and inclusive economic growth.

We have seen this model enable anchor firms such as Siemens, to collaborate with tech entrepreneurs in Hull. And for Nissan to partner with a digital agency in Gateshead; which resulted in a new AI business being formed in the region raising £650,000 investment. These examples highlight the potential of the tech sector as an engine of national and regional productivity, and the necessity of leveraging industry relationships for collaborative R&D which will identify market opportunities, drive new firm creation and support regional leaders to innovate in partnership with the sector. This has been achieved to date through traditional industry identifying a challenge that it cannot solve, and sponsoring business innovation activity that is brokered through UKTCG organisations.

It is crucial that the next Government harnesses the potential of bringing innovation and tech policy together by working with UKTCG to develop and implement 'Distributed Innovation' programmes. We need to better design-in collaboration between anchor firms and local institutions, and ambitious tech companies. By incentivising R&D through open collaboration between corporates and the tech sector, we help larger firms to engage effectively alongside tech SMEs. This activity helps anchor and grow local and regional innovation supply chains – accelerating growth for incumbent businesses, and channeling investment to scale-ups to conduct collaborative R&D.

In doing so, we drive place-based innovation clusters and spillovers, create new jobs and attract more inward investment. It is critical that we identify and scale good practice in helping locally-embedded firms of different sizes to innovate together if we are to truly capture the benefits of R&D – for smart specialisation, for the foundational economy and for a vibrant local and national tech sector[1]. UKTCG can help our tech businesses to engage, as we understand the cultural, logistical, procurement and management-level barriers that often inhibit collaborative working.

[1] Dan Breznitz (2021) : Innovation in Real Places: Strategies for Prosperity in an Unforgiving World

Tech Cluster organisations must be central to the design of ‘Distributed Innovation’ programmes. Universities have a role here but aren’t equipped with the knowledge, networks and credibility with the sector.

As each region has its own mix of corporate partners, sectoral strengths, institutional relationships and geographically based funding and investment mechanisms, we do not here prescribe what each ‘Distributed Innovation’ model must look like locally. This approach is at present underutilised and often occurs ad-hoc – but is something which the next Government could address through their design of place-based Innovation funding (e.g. for new Innovation Deals, succeeding Innovation Accelerators and Investment Zones). We believe this model has huge scale-up potential as a mechanism for driving private sector investment into our regional economies.

Distributed Innovation programmes might have some common characteristics:

A mechanism that lets organisations who have an interest in local economic development outcomes invest in effective brokerage for Distributed Innovation.

They will get the economic dividends, and local investors may get returns as well as shares on portfolio businesses. The model might include relevant tax incentives for collaboration marshalled by intermediaries.

Revenue support for the organisations working in supporting these partnerships to bridge the gaps which inhibit collaboration.

·Such as making traditional business a more educated buyer of a different type of technology; and making start-ups and scale-ups a better provider of their technology to industry.

A model which de-risks innovation by dealing with practical logistical challenges.

Such as cash flow support to bridge the gap on payment terms on large corporates (often 90+ days).

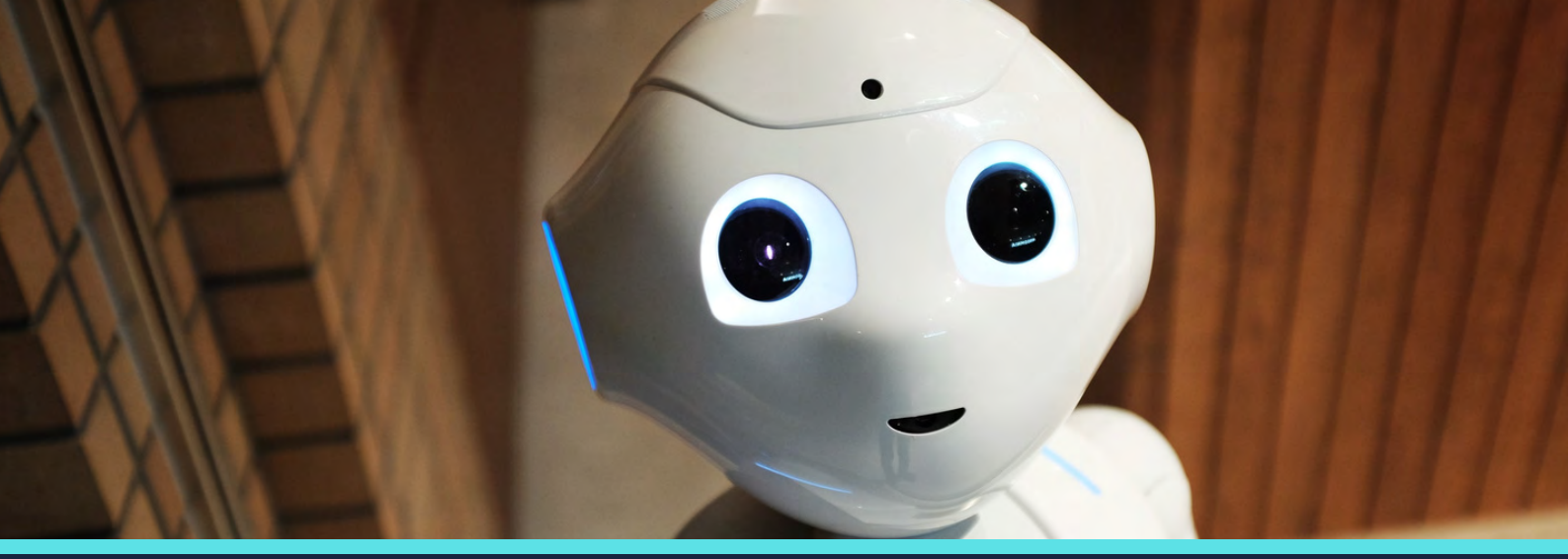
A UK INNOVATION POLICY WHICH GIVES EVERY PLACE A CHANCE

Embed the benefits of 'flagship' Government R&D investments locally by connecting and enhancing existing innovation activities within the region.

Government policy needs to ensure that 'flagship' national innovation programmes also crowd-in local innovative firms by building on existing innovation activities within clusters by enhancing and connecting them. National initiatives to support place-based R&D will have a role to play in directing the actions of UKRI agencies for the foreseeable future, and programmes on the radar of Ministers do naturally require attention from UK Civil Servants and funded translational institutions.

Flagship investments must therefore work with local organisations who can help our tech businesses to drive both programme innovation, and spillovers arising from collaborative R&D activity. UKTCG members such a Tech East, can help flagship initiatives like Freeport East, to work with tech entrepreneurs and local market verticals to embed the benefits of innovation. To help measure our success on this, we suggest that national innovation investments should record, track and report:

- The level of public R&D funding spent with local tech businesses; and
- The value of contracts between secured via inward investment to the region, for local tech businesses as a direct result of flagship innovation programmes.



A UK Innovation Policy which gives every place a chance

Work with UKTCG and partners to build and implement ‘Distributed Innovation’ programmes which design-in collaboration between anchor firms and local institutions, and ambitious tech companies.

These encourage regional innovation and business growth, based on mechanisms which have been proven to work in our clusters and which are ready for scaling up – and can play a crucial role in delivering a successful place-based innovation policy.
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Embed the benefits of ‘flagship’ R&D investments locally by connecting and enhancing existing innovation activities within the region

So that new national programmes drive innovation spillovers through engaging Tech SMEs and local assets.

MOBILISING ECOSYSTEMS TO HELP BUSINESSES TO START AND GROW

Agency and place matter - and tech communities can underpin the success of devolution.

UKTCG organisations provide a 'connective tissue' for successful ecosystem. When supported and harnessed, our tech businesses improve productivity in our region and underpin new, well-paid jobs locally. UKTCG understand that effective policy and programmes nationally, need genuine appreciation of place-based opportunities and challenges. This means helping companies who need skills, investment, and contracts; helping our local people who want to build careers; and helping our anchor institutions to create a smart, sustainable, and inclusive regional economy.

Government can encourage a more robust pipeline of new start-ups by considering R&D Tax Credit enhancement and grant funding 'runway' support for innovative firms and spinouts outside of the Golden Triangle. Diversity is still a huge issue in the sector[1]. In the two decades prior to Covid, 44.5% of all spinouts came from Oxford, Cambridge, Imperial or UCL – which clearly do not have 44.5% of the UK's best ideas or talented people[2]. The UK misses out on so many potential Founders. Not everyone has the luxury of being able to spend two years experimenting in a start-up after graduating, with financial support and connections from parents. Providing tax incentives and runway support would help to address this. While the scheme would need to be carefully designed, UKTCG members would be keen to support Government in doing so.

We need an outside-in approach to tech transfer to empower local networks to help people understand the potential of tech and explore their interest, and to match people to appropriate investment opportunities when they are ready. Addressing this is more complex than simply connecting investors or encouraging more entrepreneurial activity from Tech Transfer Offices in universities. Tech founders often start with financial support from friends and family and the expertise of their existing connections, and are more privileged as a cohort than most UK citizens.

[1] Wired (2019) https://www.wired.co.uk/article/uk-startups-diversity-education
[2] GovGrant (2021) University Spinout Report https://www.govgrant.co.uk/university-spinout-report/

MOBILISING ECOSYSTEMS TO HELP BUSINESSES TO START AND GROW

Capital markets are not as strong outside of London, and universities do not spin-out as many businesses. But the proximity to capital markets is also only part of the explanation. UKTCG members feel that not enough attention has been given to the socio-economic background of founders during a decade of policy aiming to grow the tech sector, and a need to help them navigate a complex web of options for start-up, scale-up and spin-out. National acceleration programmes play a role, but are not suitable for all. It is important that this experience plays into planning and delivery of support.

Government should continue to commission an Annual Baseline Report to support tech entrepreneurs.

An annual baseline report for the sector in all parts of the UK – which celebrates success to help companies grow and captures data for the sector, is helpful and should continue. UKTCG feel this model could grow in even more useful ways. This may include metrics highlighting local efforts to grow the tech sector which can be shared more widely with peer communities across the UK (e.g., to increase levels of support for spinouts from regional universities; or encourage business starts from left-behind neighbourhoods) as well as new sector trends - helping devolution to fuel growth and shared learning.

Government could give every region some funding to feed in regional intelligence nationally; and encourage learning from and awareness of successful local programmes or pilots which may be scaled UK-wide or adopted. A decentralised approach would capture good practice and drive shared learning, as opposed to focusing on promoting boosterish messages that go in press releases but do not really help the sector on the ground.

HELPING TECH DRIVE THE SUCCESS OF DEVOLUTION ACROSS THE NATIONS AND REGIONS OF THE UK

A successful Government will look closely at the effectiveness of translational institutions – such as those funded through UKRI - in delivering 'for' local and regional economies, as opposed to just 'in' them. Too often, the UK fails to proactively carve-out opportunities for local innovative firms to access collaborative R&D opportunities and grow their businesses[1].

Metrics for offices, facilities and factories built, academic papers generated, or businesses supported are easy to measure but do not always drive the innovation, spill overs and new business creation that we need. Too often, Whitehall departments and funded institutions define success in 'regional' investments by 'highly visible', or 'ribbon-cutting' activities, rather than sustainable impact for businesses and communities.

If the high-productivity firms and jobs of the future are to be found at the intersection of digital technology and market verticals – often strongly linked to place-based strengths[1] - then we need appropriate support for commercialising ideas. For this to be effective, the welcome move towards place-based innovation policy must be accompanied by an appropriate mechanism for innovative businesses to get involved. Across tech and other sectors, there is a real concern that Innovation Accelerators, Innovation Deals or Investment Zones will see cash 'disappear' into universities; while there is already a lack of transparency around the decision-making mechanisms of UKRI institutions.

A successful Government should develop Distributed Innovation Frameworks alongside Local Leadership, to identify clear KPIs for publicly funded innovation partners to work to; with a requirement to articulate their offer to local SMEs.

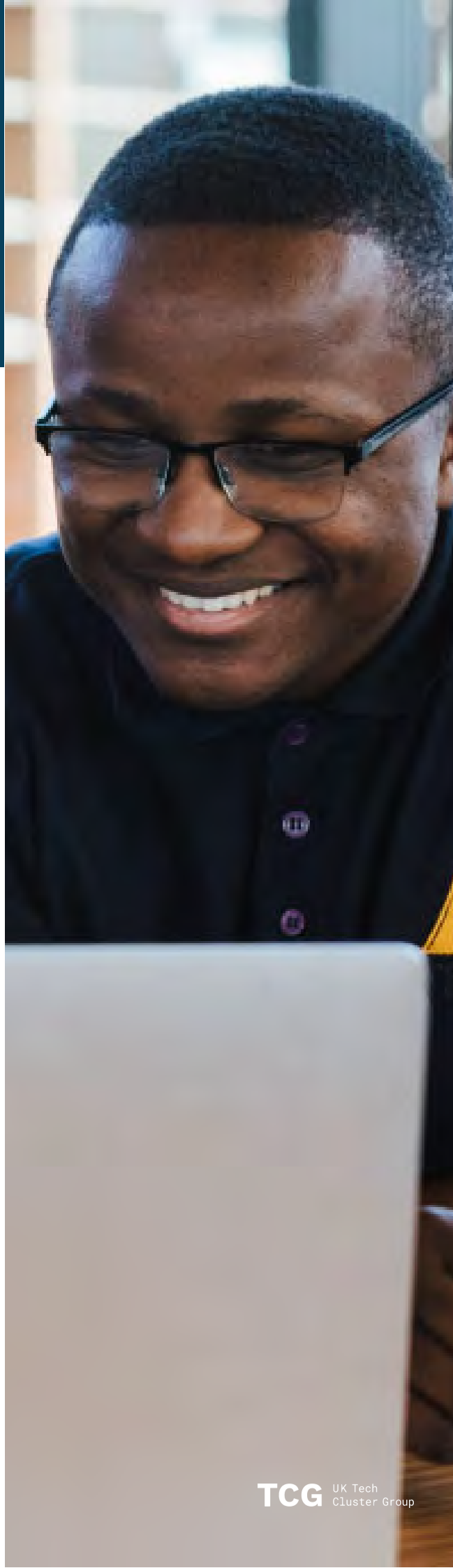
Frameworks can build on and extend existing positive practice (e.g. Civic University Agreements); helping our anchor institutions to harness the potential of their local businesses and help them to grow[1]. National agencies (e.g. Catapults; Innovate UK; National Institutes) must be explicit about how they will proactively deliver 'for' local areas.

All national and local innovation agencies should contribute to producing an annual 'Digital Ambition Statement' at local Combined Authority or County level; articulating to innovative local businesses how they can collaborate with corporates, innovation agencies and public partners.

[1] Kwadwo Atta-Owusu, Rune Dahl Fitjar, Andrés Rodríguez-Pose, (2021)What drives university-industry collaboration? Research excellence or firm collaboration strategy? Technological Forecasting and Social Change, Volume 173
[1] Philip McCann & Raquel Ortega-Argilés (2015) Smart Specialization, Regional Growth and Applications to European Union Cohesion Policy, Regional Studies, 49:8
[1] Civic University Commission (2019) : Truly Civic: Strengthening the connection between universities and their places ,The final report of the UPP Foundation Civic University Commission: https://upp-foundation.org/wp-content/uploads/2019/02/Civic-University-Commission-Final-Report.pdf

Distributed Innovation Frameworks are a missing piece in place-based innovation policy, and a successful Government can utilise these to bring innovation partners together.

When universities, tech businesses and other partners collaborate, there is internal bureaucracy and confusion about what constitutes value and who owns it. High university stakes can disengage investors. Some universities may even be some hostility to spin-outs, versus core objectives of research and teaching. A Distributed Innovation Framework can signal priorities and drive engagement. Place and agency are important in growing the tech sector and translating the benefits of digital innovation – it is not as simple as developing economy-wide regulations or nationwide schemes, and hoping for the best.



Mobilising ecosystems to help businesses to start and grow

Encourage a more robust pipeline of new start-ups by considering the merits of R&D Tax Credit enhancements and grant funding '**runway**' support for innovative firms and spinouts outside of the Golden Triangle

Commission an Annual Baseline Report to support tech entrepreneurs

Develop Distributed Innovation Frameworks to identify clear KPIs for publicly funded innovation partners to work to; with a requirement to articulate their offer to local SMEs.