LONDON'S DIGITAL FUTURE

THE MAYORAL TECH MANIFESTO 2016

TECH
LONDON
ADVOCATES

CENTRE
FOR
LONDON

tech^{UK}

ABOUT THE AUTHORS

tech^{UK}

techUK represents the companies and technologies that are defining today the world that we will live in tomorrow. More than 850 companies are members of techUK. Collectively they employ approximately 700,000 people, about half of all tech sector jobs in the UK. These companies range from leading FTSE 100 companies to new innovative start-ups. The majority of our members are small and medium sized businesses. techUK is committed to helping its members grow, by developing markets, developing relationships and reducing business costs and risks.

TECH LONDON ADVOCATES

Tech London Advocates is a private sector led coalition of over 2,500 expert individuals from the tech sector and broader community who have committed to championing London's potential as a world-class hub for tech and digital businesses. It strives to support London's tech start-ups and high-growth businesses in finding new investment, new talent and continued success. Tech London Advocates is an independent organisation, sponsored by City of London Corporation, Penningtons Manches LLP, London First, Mass Challenge, Here East and Russell Reynolds Associates.

CENTRE FOR LONDON

Centre for London is a politically independent, not-for-profit think tank and charity focused on the big challenges facing London. It aims to help London build on its long history as a centre of economic, social, and intellectual innovation and exchange, and create a fairer, more inclusive and sustainable city. Through its research and events, the Centre acts as a critical friend to London's leaders and policymakers, promotes a wider understanding of the challenges facing London, and develops long-term, rigorous and radical solutions for the capital. Centre for London would like to thank Google and Monster for their support of this project.

FOREWORD

This is an important year for London, as the city prepares to elect its third Mayor. The purpose of this Manifesto is to demonstrate why the development of London as a digital city is so important to its future, and how the new Mayor can contribute towards this goal.

Our organisations have a joint commitment towards supporting the future of London and the UK's digital industries; indeed as the pages that follow will demonstrate, we believe that the two are very much intertwined. Our belief is that a successful, sustainable and prosperous London in the 2020s will be a digital London, populated by digital Londoners and digitally-enabled businesses.

The next four years represent a crucial juncture in London's digital development: already it is home to a thriving population of tech entrepreneurs, investors and innovators. Now there is an opportunity to harness their combined expertise and influence to turn London from a digitally-friendly capital into a digitally-powered one.

The Mayor has a unique role to play in making this happen: as a convenor, bringing together public and private sector interests to broker solutions; as a champion, promoting London as a global hub of digital excellence; and as a collaborator, working with the tech sector to address the challenges it faces, and ensuring that Londoners are equipped with the skills to benefit from all that the sector has to offer.

As we argue within, there is also a need for City Hall to become a digital actor in its own right – testing, adopting and promoting the digital solutions that will underpin London government into the future. The ideas and recommendations that follow are the work of many, and we are very grateful to those who contributed their insights and expertise during the research process. In particular, thanks are due to Andrea Bertone, Executive Vice President of Monster; Theo Blackwell, Head of Policy at UKIE; Claire Cockerton, CEO of ENTIQ; Dan Morgan, Head of Policy and Regulation at Innovate Finance; Dr Max Nathan of the LSE; Cllr. Guy Nicholson, Cabinet Member for Regeneration at Hackney Council; Gavin Poole, CEO of Here East; Conrad Roeber, of Doteveryone; John Spindler, CEO of Capital Enterprise; Jon Steinberg, Public Policy Manager at Google; and Rob Whitehead, Head of Strategy at the Future Cities Catapult. All gave their time to attend a roundtable discussion that was instrumental in shaping the thinking of this Manifesto.

Thanks to Richard Brown, Kat Hanna and Jess Tyrrell at Centre for London for their role in drafting the Manifesto, to the techUK Public Policy Group and to the team at Seven Hills.

We have published this manifesto because digital innovation has such an important role to play in the future of the city, its companies and communities. We look forward to working with the candidates and new Mayor towards that end.

RUSS SHAW
FOUNDER ∘ TECH LONDON ADVOCATES

CHARLOTTE HOLLOWAY
ASSOCIATE DIRECTOR ∘ TECHUK

BEN ROGERS
DIRECTOR ∘ CENTRE FOR LONDON

LONDON HAS THE OPPORTUNITY TO LEAD A SECOND WAVE OF DIGITAL TRANSFORMATION, NOT JUST AS A HUB FOR TECH COMPANIES, BUT AS THE WORLD'S LEADING DIGITAL CITY.

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INTRODUCTION

TECHNOLOGY HAS BECOME ONE OF LONDON'S GREAT SUCCESS STORIES: A SECTOR THAT IS ATTRACTING TALENT, CAPITAL AND ATTENTION FROM AROUND THE WORLD

Companies that were still emerging forces at the time of the last Mayoral Election have now become globally admired technology leaders in fields as diverse as finance, fashion, health, gaming, advertising, transport and data centres. London's economy is digitising, and both new and established sectors are benefiting from the adoption of digital innovation. Such digital progress has benefited the city as a whole: at least 382,000 people are employed in the technology and information sectors, which according to one study has been responsible for 30% of the capital's job growth since 2009.[1]

In a few short years, London has become a globally renowned centre of digital excellence: a hotbed for entrepreneurs, investors and innovators. The 2015 European Digital City Index ranked London at No. 1 for both start-up and scale-up readiness.[2] However, any assessment of the London technology landscape in 2016 must acknowledge that there is as much still to do as has been achieved over the last half-decade.

With so many digital companies starting and scaling across the capital, it is now clear that there are capacity issues for the city to address, from infrastructure to skills and access to funding. Moreover, there is significant untapped potential to harness digital innovation for the benefit of London and Londoners as a whole: in areas as diverse as transport, the environment, healthcare and social inclusion. A successful London in 2020 will be a digital London, and that is something the Mayor is uniquely placed to encourage and drive forward, working with key

organisations from its own delivery agencies to the borough councils and the London Enterprise Panel.

Over the next four years, London's new Mayor must build a digital-first mindset into the relationship between citizen and city. A truly digital London will be a city which is not just home to a diverse community of technology businesses, but a capital which is itself technologically excellent. One which is digitally inclusive, which is instinctively open and responsive in adopting innovative technology, and which harnesses the power of digital to reshape and enhance the services it provides and to involve citizens in that journey. As recent research suggests, there is still some way to go on this, and much to learn from other cities which have taken a lead, such as New York, Barcelona and Tel Aviv.[3]

London has the opportunity to lead the next wave of digital transformation, not solely as a hub for tech companies, but as the world's leading digital city. It has the opportunity to champion a regulatory environment that is open to the best of digital innovation in a way that benefits the city and those living in it, from the sharing economy to the use of smart sensors. London can also lead in helping its citizens benefit from new waves of innovation, such as equipping workers with the skills to thrive as job roles change and as traditional industries experience innovation and evolution.

1 June 2014, South Mountain Economics, "London: Digital City on the Rise", p.2
2 European Digital Forum, "European Digital City Index 2016": https://digitalcityindex.eu
3 Nesta, "City Initiatives for Technology Innovation and Entrepreneurship: London's Performance": citie.org/cities/London

LONDON SHOULD BE LEADING THE UK'S DIGITAL TRANSFORMATION

Of course, not all factors affecting the development of a digital London are in the gift of the city or its companies. One issue causing concern among the digital community is the upcoming referendum on British membership of the European Union. A 2015 survey of techUK members found that 71% favour staying in a reformed European Union, with a further 17% saying they would stay in regardless of further reforms. 78% believe the UK would lose influence on the issues that impact their business if it were to leave the EU.[4] Similarly, 86% of Tech London Advocates surveyed last year said they believed the UK should remain in the EU.[5] Whatever the result of the referendum, London's digital future relies on its status as a city with strong commercial, cultural and human connections to Europe and the world. Those are foundations which any Mayor must work to deepen and strengthen.

The opportunity is there for the taking. There are few cities in the world where a municipal leader is so well placed to both help, and be helped by, the digital community than London. The Mayor has unique powers which can unlock genuine change for the city, its people and its companies, through harnessing the power of digital innovation. As the national capital, London should be leading this transformation for the benefit of the UK as a whole, as well as working with and learning from other UK cities with similar ambitions.

That is why we also look to the UK Government to take these recommendations on board ahead of the launch of the UK Digital Strategy next month.[6] London's world-leading strengths in tech are reciprocally bound to the digital successes of the rest of the UK. In an era which will see ongoing devolution of powers across the UK, national Government and City Hall can set a positive example for how a collaborative approach can benefit both city and citizens.

As the global economy becomes increasingly digitised, the economic and social success of London is inextricably bound to its capacity to innovate. For the incoming Mayor, digital innovation is an imperative which cannot be ignored.

4 16.11.15, techUK, "techUK member views on Europe": https://www.techuk.org/member-eu-survey/eu_membership_survey

5 08.11.15, Sky News, "Tech bosses add voice to Brexit vote warning": http://news.sky.com/story/1583794/tech-bosses-add-voice-to-brexit-vote-warning

6 29.12.15, UK Government, "UK Digital Strategy - the next frontier in our digital revolution": https://www.gov.uk/government/news/uk-digital-strategy-the-next-frontier-in-our-digital-revolution

DIGITAL LONDON — THE 2020 VISION

A fully digital London will be one where people, businesses and the city itself all reap the benefits of a more connected, responsive and integrated capital. By grasping the digital agenda over the next four years, the new Mayor can play a significant role in helping London become:

A SCALE-UP CAPITAL:
One of the world's leading destinations for high-growth tech firms, those that do most to create jobs, attract investment and generate economic momentum.

A GLOBAL DATA CAPITAL:
A city powered on data, with an open data strategy which can unlock improvements in fields ranging from transport to housing and fraud prevention.

AN INCLUSIVE CITY:
Where greater provision of digital skills for life and for work is central to addressing the exclusion and deprivation issues that London faces.

A TALENT MAGNET:
A city where the strength of the technology ecosystem attracts talented innovators from around the world, as well as developing a deep pool of homegrown digital talent.

AN ULTRAFAST CITY:
One of the world's most connected cities, with competing companies offering fixed and mobile services with speeds ranging from 100s Mbps to Gigabit+ unlocking wide-ranging benefits for both households and businesses.

THE WORLD'S MOST INNOVATIVE CAPITAL:
Where technology is harnessed to make London green, clean, accessible and secure, by reducing pollution, congestion and energy consumption and boosting cyber readiness.

A CITY OF MANY TALENTS:
A city where a diverse range of digital specialisms flourishes in areas across the capital, building on the current landscape which ranges from fintech in the City of London to adtech in Clerkenwell, ecommerce in Richmond and Euston's MedCity, to name a few. A city where new digital quarters are constantly emerging, as they have begun to in areas such as Croydon, Wembley and Wimbledon.

FUTURE PROOFING

When London last voted in a Mayoral election, few could have accurately predicted the speed and scale of technological change that would transform the capital over the next four years. This pace of innovation shows no sign of slowing in the years ahead. We believe London must adopt a pro-innovation approach and build closer relationships with technologists who can advise on the future in digital innovation and what it can contribute to the social and economic life of the city. Openness to innovation must be balanced with a regulatory framework that instils trust and confidence in London citizens.

From the Internet of Things and smart cities technologies, to autonomous vehicles and the sharing economy, technology is bringing a raft of new possibilities and implications for London: its people, companies and infrastructure. City Hall will need a proactive mindset to keep pace with the latest developments in digital innovation. It must understand how London can shape its future, working with rather than against technology, and setting an example on a national and global basis.

London could lead, for example, in adopting the Digital Development Goals outlined by Doteveryone, the campaign to bring the UK into the network age.[7] In a city where almost a fifth of the population (18%) has no basic digital skills, London should eliminate digital exclusion: ensuring that London is a digital capital not just of business, but for all people, of all backgrounds and all ages.

18%
OF THE POPULATION HAVE NO BASIC DIGITAL SKILLS

LONDON NEEDS A REGULATORY ENVIRONMENT BUILT ON THE PRINCIPLE OF 'LEVEL UP, NOT DOWN'

Fundamental to the future proofing of London is the question of regulation: how new and transformative technologies can be adopted, and innovation welcomed, at the same time as people's concerns around issues such as privacy and labour market security are being comprehensively addressed. This approach must balance open innovation with consideration of citizens' interests. Where necessary, it must seek to mitigate the impact of rapid change.

The new Mayor should be ready to address the changes that new technologies bring for London life. In this regard, the Mayor is well-placed to broker solutions between businesses, workers, and regulators. The disruption to the private hire markets caused by the introduction of Uber in London is a prime example of regulators failing to keep pace with the scale and speed of a particular innovation. London needs a regulatory environment built on the principle of 'level up not down,' where increased choice and improved services are available to people as citizens and consumers. A good example is the Department for Transport's approach to preparing the way for driverless cars, by developing a regulatory framework and a testing environment in advance of their introduction.[8]

7   28.09.15, Doteveryone, "We all love big goals": http://doteveryone.org.uk/2015/09/28/we-all-love-big-goals-by-graham-walker/

8   11.02.15, Department for Transport, "The Pathway to Driverless Cars": https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/401562/pathway-driverless-cars-summary.pdf

THE PRIMARY MINDSET OF CITY HALL SHOULD BE AN INSTINCT TO SUPPORT INNOVATION

Building a team at City Hall with instincts for innovation will become ever more important in the coming Mayoral term. Regulation is not only about responding to the introduction of new products and services but understanding the changes that lie at the root of many of these innovations, for example, the increased use of data. If approached with the right mindset, City Hall can shape a regulatory framework which enables new opportunities and innovations. In a City that runs on data the new Mayor — along with the Metropolitan Police — can play an important role in ensuring that the city's digital development enshrines the privacy, safety and security of its citizens and companies.

The growing Cyber Security threat is one that concerns all London businesses, creating a need for greater awareness on how to operate safely and securely online. The Office of National Statistics, which has just begun including cyber incidents in its overall crime statistics, estimated a total of 2.5 million cyber crime incidents in the year to June 2015.[9] With Cyber Security an emerging sector within the London digital economy, the Mayor can do more to join together the work of the private sector and the Met Police to ensure that the city, its citizens and companies are best equipped to deal with the cyber threat.

Overall, London is already a more favourable environment for consumer-focused innovation than many of its international city peers: in fintech, open data and many aspects of the sharing economy, an enabling approach has been deployed. How can we build on this to make it the very best in the world? We need the Mayor to lead proactively to ensure that London is ready and receptive to innovation that benefits consumers and citizens. Such an approach will underline its credentials as a global capital for innovative technology.

9 15.10.15, ONS, "Improving crime statistics in England and Wales": http://www.ons.gov.uk/ons/rel/crime-stats/crime-statistics/year-ending-june-2015/sty-fraud.html

EXPERT VIEW
SARAH WOOD
CO–FOUNDER AND CO–CEO • UNRULY

Over the last decade, London has firmly established itself as one of the world's best destinations to start and scale a tech company. That reputation, and the benefits it brings, can only be maintained if the city makes a concerted effort to support and enable new technologies and future industries.

London's tech firms are moving fast towards the future, and so must the city, to ensure that the environment for innovation is optimised, and that the regulatory approach is one that actively attracts entrepreneurs and investors to our city.

The pace of technological change means that London will very quickly start to look like a different place, driven by innovation from smart cities solutions to the Internet of Things, changing how people live and businesses operate. Ensuring that London is in the vanguard of this change will be crucial to the future of the city as a global capital. The Mayor also has a key role to play in encouraging diversity and digital skills initiatives, to ensure that the opportunities afforded to Londoners by creative and transformational technologies are accessible to the many and not just the few.

THE SOLUTIONS

The new Mayor needs to send a strong message that London is open to digital innovation and willing to support it in an aware, receptive and intelligent manner. They must work with regulators across the city to achieve a facilitating regulatory environment which encourages innovation and also protects citizens. Priorities for the new Mayor must be:

01
CONDUCT AN INNOVATION AUDIT

A London-wide audit of regulation to cope with the pace of innovation, mirroring that which is currently taking place on a national level. The audit should assess how London is preparing for the impact of technologies including the Internet of Things, wearables, driverless cars and more; outlining how they can be adopted while maximising benefits to consumers and maintaining necessary protections. Where regulations are dated and can be revised, the Mayor may open up new market opportunities and benefits for Londoners as a result. The Mayor should consider what regulatory principles are required to predict and respond to the major challenges that London will face as new technologies continue to change and improve our lives.

10 As defined by Go ON UK: http://www.go-on.co.uk/get-involved/basic-digital-skills/
11 16.09.15, techUK, "Securing our digital future: the techUK manifesto for jobs and growth, 2015-2020," p.51

02
FULL DIGITAL INCLUSION

The new Mayor should work proactively with local authorities and organisations addressing the digital divide towards the aim of a fully digitally inclusive London. All Londoners should have the opportunity to learn basic digital skills,[10] so that they can interact with public services online and reap wider benefits from digital opportunities. We call on the new Mayor to make full digital inclusion for Londoners a top priority, and convene a working group in the first 100 days of the new administration, with the key organisations working on digital inclusivity in London. This should develop a comprehensive plan for how City Hall can work with these organisations, through promotion, advocacy support and facilitation of local pilot projects to accelerate solutions. London can and should take a lead in shaping to a UK-wide digital inclusion strategy, which techUK amongst others has previously advocated.[11]

03
WORLD CLASS CYBER SECURITY

There is a clear opportunity for London's growing Cyber Security sector to work in closer partnership with the Police to tackle the threat posed by cyber crime. The new Mayor should build on the work done at the London Digital Security Centre (LDSC) which brings together experts from policing, technology and business to provide clear, accessible digital security advice and support to London's SMEs.

INFRASTRUCTURE

THE SITUATION

With the population rising, infrastructure is a challenge for the whole of London. At the same time, there are specific issues this poses for the digital community and new solutions that digital innovation can help promote. While London may be the ideal geographic, social and cultural capital for technology businesses, it risks becoming a victim of its own success unless it is able to meet the demand for suitable office space, broadband and housing that is affordable and secure to employees on a range of payscales. The capital's tech sector also stands to lose if new transport infrastructure, notably aviation capacity and Crossrail 2, is further delayed.

Broadband connectivity is a priority area of focus in fulfilling the vision for a digital London. While London enjoys a high underlying level of superfast broadband, and fast, widespread mobile coverage, provision across the capital is uneven. This variable supply demonstrates the complete investment landscape across the city – influenced by geography, legacy networks and other factors. The private sector is starting to meet these challenges through extra investments spurred by innovations in technology. These include small (wireless) cells, network realisation and business models from a variety of service providers ranging from the local to the national. It is this plurality of approaches underpinned by a supportive business, regulatory and planning environment that will enhance and equalise connectivity London-wide.

LONDON CAN TAKE A LEAD IN ESTABLISHING ITSELF AS AN ULTRAFAST CITY

The Mayor can play a role in setting the level of ambition and incentivising the case for investment. On the former, London can take a lead in establishing itself as an ultrafast city, where households and businesses are able to access very high levels of bandwidth as required at competitive prices. This is something the Mayor should be prominent in encouraging and championing. Improved broadband supply will also require the planning system to respond to innovations in the provision of infrastructure, and the Mayor should be working with boroughs to foster collaboration that makes the development of digital infrastructure easier.

The struggle to get connected is, in many cases, matched by the problem of how to find affordable and appropriate office space. Rising rents, especially in East London, may have had the effect more of dispersing digital companies across the city than discouraging them altogether. However, what cannot be escaped is the growing shortage in the supply of commercial property. Deloitte's most recent 'Crane Survey' found that available office space in central London is at its lowest level for 14 years, and that 2015 was set to see less new commercial space completed than in any year since 2012.[12] The effects of a supply crunch are being exacerbated by rising demand, not least from the technology sector, which accounted for 44% of new commercial space leased in Q3 2015.[13]

12 11.11.15, Deloitte, "The London Office Crane Survey – Winter 2015", p.16: http://www2.deloitte.com/content/dam/Deloitte/uk/Documents/real-estate/london-crane-survey-report-winter-2015.pdf

13 Ibid, p.18

In an already unpromising environment for office space, new and growing technology companies can face a particularly difficult journey to find their business home. The combination of weak covenants for asset-light start-ups, and unpredictable growth for ambitious scale-ups, make tech companies unpalatable tenants for many landlords. At the same time, companies face a challenge in locating themselves near where their staff can afford to live: an issue which risks the development of sector clusters that are so important to the technology industry as a whole.

While the opening up of new areas and the explosion of shared workspaces provide solutions for some, there is an unmistakable and pressing need to fix the fundamentals underpinning the space race for London's digital community.

Transport poses an equally pressing problem for the business community in London, and one which digital innovation could help alleviate. According to one study, the economic impact of traffic congestion in London will rise by over 70% by 2030, by which time it will be costing the capital's economy $14.5bn a year.[14] The digital sector is well placed to drive behavioural change and increase operational efficiency, as it already has with innovations such as Citymapper. A more comprehensive deployment of Big Data to plan transportation delivery based on demand, and support user information on service availability, would be an important step in the right direction. The new Mayor should be working with TfL to promote innovative digital solutions to the capital's congestion challenge.

14 14.10.14, CEBR, "Urban population growth and rising GDP are key trends impacting the future economic costs of congestions": http://www.cebr.com/reports/the-future-economic-and-environmental-costs-of-gridlock/

EXPERT VIEW
GAVIN POOLE
CEO • HERE EAST

As London continues its growth as a world class digital sector, it will need to help companies find the space to locate and expand. With such a thriving start-up community, there is rightly now a focus on how these companies can be supported to scale into world-beaters. One of the big hurdles tech scale-ups face is the frequent inflexibility of the property market, which is geared more to the reliable needs of large companies than the often unpredictable requirements of fast-growing companies.

Advancing our position will involve a combination of solutions. New managed work environments, such as we are building at Here East on the site of the Olympic Park, have a big role to play in incubating scale-ups and giving them access to a community of likeminded peers, and larger companies. At the same time, there needs to be more willingness on the part of the property industry to understand the needs of start-ups, and the benefits as well as challenges that tech tenants can offer.

THE SOLUTIONS

The technological infrastructure that London needs will come from effective collaboration between the private sector as provider, and City Hall as connector and enabler. The Mayor must work to create the best possible environment for investment in new infrastructure, championing the importance of connectivity as a 'fourth utility' and making specific interventions around planning that support the interests of business, which will only become more reliant on digital infrastructure, across all industries. Priorities for the new Mayor around infrastructure should include:

04
PLAN AHEAD FOR BROADBAND

It is essential that the new Mayor gives broadband a more prominent role in the work of the London Infrastructure Delivery Board. For instance, the London Infrastructure 2050 plan needs to be revised to include broadband as a more central component, with a focus on the changing nature of future demand and how this will be met.

Building on the creation of the London Connectivity Map and the work of the Connectivity Advisory Group, the new Mayor must ensure broadband is treated not as a separate concern, but a central plank of overall infrastructure planning and delivery: the 'fourth utility'. Achieving this will also require more work with landlords, to encourage adoption of the Connectivity Rating Scheme and the new wayleave template being developed by the City of London Corporation.

05
FROM NOTSPOTS TO HOTSPOTS

The new Mayor should work with national Government, Ofcom and the London boroughs to both ensure a consistent planning permission regime across London; and to facilitate reasonable access to public sector land and properties (such as rooftops) for the establishment of fixed and mobile infrastructure.

As an immediate priority, the next Mayor should create a pilot programme addressing the broadband issue in five 'notspot' areas in London, bringing together private sector providers and local authorities to develop cross-borough solutions. The results of this work should be shared as best practice for London as a whole, to demonstrate the benefits of a collaborative approach, and new solutions to planning difficulties. These will also be relevant to areas such as smart cities infrastructure.

06
SHORE UP THE SUPPLY OF COMMERCIAL SPACE

With the supply of new commercial space slow to come online, it is imperative that London does not experience an erosion of its existing office estate. That is under threat from the Government's 2013 relaxation of the change-of-use rules, allowing commercial property to be converted to residential use without planning permission. Key areas in London, including the Central Activities Zone (CAZ) are currently exempt from the policy, exemptions that will expire in 2016. It must be an urgent priority for the new Mayor to work with local authorities to secure and extend these exemptions, ensuring London avoids an unaffordable loss of commercial space that would further squeeze the ability of technology firms to both find and afford office space, and to safeguard the clusters which are fuelling the development of the tech sector across London, exploring new areas and specialisms.

INVESTMENT AND FUNDING

THE SITUATION

London has experienced an explosion of venture capital (VC) investment over the last half-decade. In 2015, digital firms in London raised a total of $2.28bn, a 69% increase on the 2014 figure.[15] That is part of a total of $5.2bn raised by London firms since 2010, over half of the UK-wide volume.[16]

London's technology sector has played an important role in enhancing inward investment in the capital as a whole: the volume of FDI (foreign direct investment) in 2014 was the highest in a decade, while over half of global executives surveyed by EY named London as the most attractive investment destination in Europe.[17]

As the breadth and diversity of technology companies has grown in London, a deeper pool of investors has flocked to the capital. One analysis suggests that at least 25 venture funds have been established since 2010, which are yet to see a portfolio company exit.[18]

Yet while capital flows have increased, funding remains a prominent concern for London's technology community. A third of companies surveyed for Tech City UK's Tech Nation report identified access to funding as a challenge.[19]

$5.2BN

TOTAL VENTURE CAPITAL RAISED BY LONDON'S DIGITAL COMPANIES SINCE 2010

From seed capital to follow-on funding, gaps in the supply of capital have been identified across the spectrum. A majority of respondents to the Tech London Advocates (TLA) survey (59.5%) for this report pointed to the pre-seed and seed stages as the most difficult at which to obtain capital, while the 2014 Scale Up Report highlighted the absence of follow on funding as a significant constraint on the development of high-growth companies.[20]

15 06.01.16, London & Partners, "UK tech firms smash venture capital funding record": http://www.londonandpartners.com/media-centre/press-releases/2016/20160106-vc-barometer-q4

16 idem

17 27.05.15, EY, "London remains the single most important location for FDI in the UK and across Europe,": http://www.ey.com/UK/en/Newsroom/News-releases/15-05-27---London-is-the-number-one-location-for-inward-investment-in-the-UK-and-Europe

18 05.02.15, Financial Times, "Venture capital funds sprout amid rush to invest in London tech": https://next.ft.com/content/463480c2-a872-11e4-bd17-00144feab7de

19 02.06.15, Tech City UK, Tech Nation: Powering the Digital Economy: http://www.techcityuk.com/wp-content/uploads/2015/02/Tech%20Nation%202015.pdf, p.24

20 November 2014, S. Coutu, "The Scale-Up Report on Economic Growth", p.32

THE INVESTMENT CLIMATE FOR LONDON'S TECH COMMUNITY HAS IMPROVED MARKEDLY

At various levels, progress has been made in filling funding gaps and proving that it is possible to capitalise the growth of London-based scale ups. City Hall's London Co-Investment Fund has pooled public and private funds to support fundraises in the £250k-£1m range, while the recent success of the likes of Funding Circle ($150m in April 2015) and WorldRemit ($100m in February 2015) has demonstrated that later-stage funding can be sourced by the most high-potential firms. There are also national funds, such as the Business Growth Fund, which London firms could be doing more to leverage.

As a whole, the investment climate for London's tech community has improved markedly in recent years. The challenge now, one which the next Mayor must play a central role in helping to address, is ensuring that as the London technology sector matures, the investment community grows and develops with it, and that the environment remains favourable to existing and prospective investors.

EXPERT VIEW

SHERRY COUTU CBE

SCALE UP INSTITUTE

London needs to establish itself as one of the best places in the world to scale a digital business. Funding has a major part to play in that, and what has changed over the last decade is that companies that start in the UK have a much more international focus and ambition. For instance, we've seen a number of London scale-ups, notably in the fintech sector, achieve significant fundraises in the last year to go global, and that momentum should continue to grow in the years ahead.

What needs to be remembered is that finance alone cannot allow companies to scale beyond the UK. It is global customers that are key to international expansion, and that is where the Mayor has an important role to play. Trade missions must be focused not just on encouraging overseas funds to invest in the UK, but to link high-potential scale ups to the customers who can facilitate their overseas expansion.

THE SOLUTIONS

The current Mayor has provided a good template for his successor in both championing inward investment into London technology, and helping incentivise private sector backing of firms through the London Co-Investment Fund. The new Mayor must continue and broaden this work on two fronts:

07

TAKE THE LONDON MESSAGE GLOBAL

Trade missions play an important role in helping raise awareness of London as an investment destination, and showcasing exemplar firms. In 2015 alone, the current Mayor led trade missions to countries including the US, Israel, Japan and China. It is vital that the next Mayor not just continues but evolves the programme of missions; extending beyond fintech to champion other key specialisms in the London tech economy, from medtech to greentech, cybertech, retailtech, lawtech and cleantech. Fintech currently accounts for over a quarter of venture capital investment into London technology. It is time that other equally high-potential sectors were given their moment in the overseas sun, helping to nurture their own funding ecosystems and long-term growth prospects.

08

PRIORITISE INVESTMENT INCENTIVES

London has grown in stature as a technology investment destination not least because of the benign environment it offers from a regulatory and taxation perspective. The Enterprise Investment Scheme (EIS) and Seed Enterprise Investment Scheme (SEIS) create an unrivalled incentive for investors to back UK companies, while the regulatory environment around alternative investment platforms such as equity crowdfunding has also been conducive. While neither EIS/SEIS nor regulation are levers at the Mayor's disposal, the influence of City Hall in encouraging Central Government to maintain these advantages is significant, and the new Mayor must be vocal in ensuring they are continued to the benefit of London and the UK technology community as a whole. Corporate venturing, either directly into companies or through accelerators and incubators, is also something that is playing an increasingly important role and which City Hall would do well to further encourage.

SKILLS,
IMMIGRATION
& DIVERSITY

THE SITUATION

Ask a London technology entrepreneur what keeps them awake at night, and a shortage of available talent will often be the answer. An industry survey conducted by techUK in 2014 found that 93% of tech firms believe the skills gap has a direct negative impact on their business.[21] That is a sentiment reflected by available data on the technology skills shortage. Recent research from O2 suggests the UK will need to fill 766,000 new digital jobs by 2020, and to train almost 2.3m digitally skilled workers to meet that demand.[22]

In priming the talent pipeline for digital business, London faces a dual challenge. Firstly it must recruit skilled talent from overseas, including outside the EU. Secondly it must nurture a much richer homegrown talent ecosystem, ensuring that young people develop skills that will allow them to access the wide range of jobs the digital sector offers, and indeed jobs across all industries that will increasingly require digital skills. To achieve this, bridges must be built between businesses and learning providers. The Mayor can help to address this by brokering a large-scale public-private solution across the city, to rival schemes such as the Tech Talent Pipeline in New York. This has engaged companies from Facebook to Google, LinkedIn, BuzzFeed, The New York Times and Goldman Sachs to provide digital training and job opportunities.

The Government's new Apprenticeship Levy, commencing in 2017, will seek to raise a total of £3bn to fund apprenticeships, through a 0.5% tax on companies whose payroll exceeds £3m. The Government's target is to fund three million new apprenticeships by 2020 through the levy; but at present there are still many questions as to how the levy will work in practice and how companies can use the funds to get the talent they need.[23] There is nowhere near the necessary supply of appropriate tech apprenticeship schemes to satisfy likely demand once the Levy is implemented in 2017.

For a sector thirsty for new talent the Levy presents both challenges and opportunities. While implementing the Levy will cause difficulties for some, including for tech companies who may not yet be aware it applies to them, it does present an opportunity to fund the development of the diverse, homegrown talent pool that London needs to support its digital development. That is an opportunity which can only be realised if the supply of appropriate training is radically improved.

Whilst there are tech companies that run extensive apprenticeship schemes, tech companies as a whole take on a comparatively low level of apprenticeships among London industries, at just 0.4 apprentices per 100 employees.[24] It should be remembered that the high-wage, high-skilled nature of many digital roles, such as Cyber Security, big data analytics and software developers, may not suit apprenticeship-level training. However, the low number of digital apprenticeships is a trend the Levy should help reverse. A greater supply of higher and degree-level apprenticeships is needed to address the skills shortage and provide opportunities for London's young people. The Mayor must act in consort with the tech sector to design fit-for-purpose higher level apprenticeship schemes across London's 'complex network' of skills providers.[25] They must also encourage the work that the private sector is doing to support the coding and computing curricula in the schools system, providing training support and mentorship.

21 30.10.14, techUK, "Julian David addressed European leaders on Digital Skills Gap": https://www.techuk.org/insights/reports/item/2771-techuk-ceo-speaks-at-european-commission-conference-on-digital-skills

22 12.10.15, O2, "2.3 Million Digital Workers Required by 2020 to Power The UK's Digital Economy": http://www.developmenteconomics.co.uk/tag/o2/

23 05.01.15, House of Commons Library, "Apprenticeships Statistics: England (1996-2015)", p.6 and p.10

24 October 2014, London Assembly, "Trained in London: Creating more apprentices to support the London economy", p.15: https://www.london.gov.uk/moderngov/documents/s40481/05a%20-%20Appendix%201%20-%20Trained%20in%20London%20report.pdf

25 16.01.15, London First, "London 2036: Agenda for Jobs and Growth" http://londonfirst.co.uk/london-2036-an-agenda-for-jobs-and-growth/

Ultimately, London needs to develop a talent pipeline which ratchets up training at all levels, from basic digital literacy to high-spec technical skills. Partnerships between business, training providers and London's world-leading Higher Education sector are vital. Indeed, London's Universities and research institutions have a central role to play across the skills spectrum, as beacons to attract talent from around the world. London must also build on its budding community of EdTech companies and scale up digital learning programmes that prove their excellence.[26]

Just as London must look to develop a homegrown talent pipeline, so too it needs to ensure that its tech companies have access to skilled employees from overseas. The difficulties companies face in navigating the visa process to recruit non-EU workers are well documented. And while recent changes to the Tier 1 Exceptional Talent visa — enabling employers to hire groups of overseas workers — have been rightly welcomed, the warnings about mooted changes to the much higher-volume Tier 2 visa also need to be heard. With thousands of overseas workers depending on the Tier 2 route, it is essential that it is maintained to avoid creating an even higher hurdle for digital companies looking to recruit from abroad.

New routes, such as Third Party Sponsorship visas, where institutions such as VC firms or tech accelerators could sponsor visas on behalf of their companies, should also be considered. So too should the reinstatement of old ones, notably the Post-Study Work visa. To thrive and grow sustainably, London tech needs the freedom to recruit from around the world; not to fight a global talent and investment war with one arm tied behind its back.

26   March 2015, Centre for London, "This is for Everyone: Connecting Young People and the Tech City Cluster"

EXPERT VIEW

MAGGIE PHILBIN

CEO • TEEN TECH

London is now creating technology products, innovations and ideas that really have made the digital future a reality. From Oyster cards on the Tube to online shopping, London is fertile ground for tech – the ultimate test bed for the businesses changing the world.

What does this mean for the city? Technology has transformed the employment landscape of the capital, creating job opportunities for all ages, backgrounds and specialisms.

However, the industry is generating jobs faster than we can fill them. We run the risk of losing valuable employees who have not updated their skills for the digital age and alienating a generation of young people unprepared for digital careers.

Addressing this problem at root means starting early. Young people need to be given opportunities to develop digital skills within the education system. The computing curriculum was a big step forward, but what is needed now is more comprehensive engagement from digital businesses with the education system – something the new Mayor can do much to encourage and facilitate.

THE SOLUTIONS

The Mayor has a major role in addressing the digital skills challenge. Through greater devolution of skills funding, partnership brokering between industry and apprenticeship providers, and influence on government immigration policy, City Hall can co-ordinate a city-wide response to securing and devoloping the talent the industry needs to succeed. Key priorities for the new Mayor should include:

09

BUILD A TECH TALENT PIPELINE

The Mayor ugently needs to establish London's Tech Talent Pipeline, building on the £5m Digital Skills Fund, due to take effect in April 2016. Building a new generation of skilled digital workers is a challenge not just for the tech sector, but for London as a whole. In their first 100 days, the new Mayor must work urgently with the private sector to invest in a comprehensive strategy for digital skills, to scale existing initiatives and identify gaps. They must invest in apprenticeship providers who can prove successful employment outcomes, especially in specialisms where demand for skills is greatest, and develop a truly collaborative response in partnership with industry, rivalling the ambition of New York's Tech Talent Pipeline scheme. The first step would be to engage the Digital Skills Fund Task Force in identifying priority areas further to the Fund's activities and agree an action plan for future private sector partnerships.

10

CHAMPION DIGITAL APPRENTICESHIPS

The new Mayor should convene a Digital Apprenticeship Task Force in the first 100 days of their term, to increase both the quality and quantity of schemes. The Task Force should include companies across the economy requiring digital workers, larger companies and SMEs who will be affected by the Levy. It should include both private and publicly funded providers, HE and FE institutions and young people themselves to devise innovative, bespoke solutions; working with companies to model schemes that will fill talent gaps, and which, critically, are measured on employment outcomes. A Year 1 target for the new Mayor should be a tech-focused apprenticeship framework, ready for the introduction of the Levy, that covers a wide range of digital specialisms, from basic digital literacy through to advanced technical skills. A significant proportion of apprenticeship schemes should be reserved for women to help address London's digital gender diversity divide at root.

11   BE BOLD ON VISAS

London's tech companies need a Mayor who will fight for their freedom to recruit talent on a global scale. That means a Mayor who will advocate to Central Government that key talent routes, such as the Tier 2 skilled worker visa, must be left unrestricted, to ensure companies can access the skills they need to grow. The new Mayor should put pressure on Government to reconsider changes to the Tier 2 visa, particularly on the cap, on salary thresholds and on inter-company transfers. They must make a case for its strategic economic importance as a talent pipeline for high-growth, job-creating companies. They should also work with the private sector to establish the appetite for Third Party Sponsorship visas, and champion them with central government, and explore with London Universities the possibility of a trial reinstatement of the Post-Study Work Visa for occupations where there is a clear skills shortage.

CHAPTER 05

DIGITAL LONDON GOVERNMENT

THE SITUATION

London's growth as a globally-recognised digital hub has largely been seen through the lens of its private sector: the burgeoning business population which has rightly gained the attention and admiration of observers and investors the world over.

Yet a fully digital London will be more than a city where technology companies thrive. It will be a capital which itself harnesses the full potential of technology: not just a city of innovators, but an innovative city in its own right. In this respect, London is already in the top class of world capitals. The CITIE project, which ranks global cites as catalysts for digital entrepreneurship and innovation, has London as one of the top performing cities, alongside New York and Helsinki.[27]

In aspects ranging from its advocacy of technology, to its role as a customer and investor, CITIE places London in the top global rank.[28] Where the capital falls down is as a 'digital governor', providing 'digital by default' services; enabling citizens to interact with the city government in real time; and to engage people and businesses in policymaking. Here, CITIE places London in the third of four ranks. The Greater London Authority and London boroughs could do much more to work with the tech sector as supplier and partner to drive innovation in public products and services. City Hall could also use its convening power to encourage borough councils to adopt a shared services approach, sharing systems, data, and IT infrastructure. It should do so in a way that respects privacy, data ownership and delivers better local services at lower cost.

Nationally, there is much greater scope for Government to innovate the means by which it procures and provides services, as techUK outlined in its Three Point Plan, with a focus on engagement, information and innovation.[29] The strength of London's digital community means it is ideally placed to take a lead on this.

A DIGITAL LONDON WILL BE NOT JUST A CITY OF INNOVATORS, BUT AN INNOVATIVE CITY IN ITS OWN RIGHT

London is a digitally-friendly city but could do much more on digital government. It should build on established innovations, such as those introduced by TfL, where contactless payment has been used to deliver a better service and support business transformation. However, City Hall lacks both mechanisms for integrating digital delivery into its operations, and for gathering insight and input from London's technology community. These could aid both its support for the private sector through new procurement opportunities, and its own capacity to help its agencies innovate how they deliver services.

There is a real opportunity for London to be at the forefront of digital transformation as a city, taking much bolder steps than it has so far. A true digital city would re-engineer services to provide one-stop, self-service, personalised services for citizens, not government silos. It would involve its citizens in designing and developing digital solutions. It would open up resources like empty buildings for use, much like the sharing economy does with personal assets. We suggest key new roles are needed to integrate digital innovation across City Hall operations, to harmonise its work with the tech sector and to develop innovative public products and services to meet modern demands.

27 24.06.15, Wired.co.uk, "London beats San Francisco on 'world's most innovative cities' list": http://www.wired.co.uk/news/archive/2015-06/24/nesta-cities

28 http://citie.org/cities/london/

29 13.10.14, techUK, "Three Point Plan to transform public services": https://www.techuk.org/insights/news/item/2266-techuk-3-point-plan-to-transform-delivery-of-public-services

THE MAYOR CAN ENCOURAGE A COMMON COMMITMENT TO OPEN DATA AND INNOVATION

A key element of this task is deploying the data at the city's disposal more openly. A 2015 report from the Capital City Foundation pointed out the discrepancy between London's successful open data innovations — such as the London DataStore — and its shortcomings, for instance not doing enough to encourage boroughs to collect more data, and shape decision making accordingly. It argued for the establishment of a Mayor's Office of Data Analytics, on the model established in New York, to put data science at the heart of City Hall decision making, which we endorse.[30]

While City Hall may not itself provide the services and much key data is held locally by boroughs, the role of the Mayor is to facilitate and encourage a common commitment to open data and innovation. They must use their influence to encourage all relevant parties (from the boroughs to providers such as TfL) to follow suit.

In the last five years, as the city's technology businesses have accelerated at great pace, City Hall has moved too sedately towards a digital, data-led approach to its own operations. The expertise to transform London as a digital city resides within it. There is a real opportunity to test, iterate and optimise a whole range of new citizen services, working with the technology industry as innovator, collaborator and provider. Demand for increased connectivity, improved information, and efficient services that are open and transparent, is at an all time high. Cities that respond to these demands, sooner rather than later, will be best placed to prosper.

30 09.06.15, Capital City Foundation, "Big Data in the Big Apple": http://capitalcityfoundation.london/big-data-in-the-big-apple/

EXPERT VIEW
EDDIE COPELAND
DIRECTOR ∘ INNOVATION LAB, NESTA

In many ways, London has consolidated its position as a city with digital expertise worthy of global recognition. However, the capital risks falling behind the competition without embedding a digital mindset and data-led approach to the way city government is run.

Though it has done much to improve the provision of open data via the London DataStore, City Hall needs to start using London's data for itself. Currently, City Hall does not systematically collect data from the 33 boroughs over which it presides, other than that collected for statutory purposes. As a result, the next mayor risks leading blind.

That is why I believe London needs a Mayor's Office of Data Analytics (MODA), established on the same model as that created by former Mayor Bloomberg in New York City. A London MODA would help reform public services, predict and prevent problems from occurring, stimulate new business growth, aid disaster response and model the impact of future policy decisions.

For one of the world's greatest cities in the 21st Century, having the ability to use data is no longer a 'nice to have', it is the most fundamental building block on which good government depends.

THE SOLUTIONS

The new Mayor has the opportunity to set a positive tone from the very beginning, in moving City Hall onto a more digital footing. New appointments and new City Hall structures are required to put digital governance at the forefront of the new administration's agenda. We call on the new Mayor to build on existing discussions in the following two areas:

12
HIRE A LONDON CDO

We recommend the appointment of a Chief Digital Officer (CDO) responsible for co-ordinating, developing and delivering a world-beating digital strategy for the city. In addition, the Mayor should invest in a Lead Data Officer, to build on the success of the London Data Store and to work with industry to realise opportunities for further opening up of data, particularly from London's local authorities. Finally, we recommend a Head of Developer Relations, to liaise with programmers, designers and technology businesses to trial and test new forms of citizen services. Reporting directly to the Mayor, the remit of the CDO would include:

- Oversee digital innovation of service provision across City Hall, working where appropriate with private sector partners

- Work with service providers, such as TfL, the Fire Brigade and the Met Police, to encourage them to take a more comprehensive open data approach

- Streamline City Hall procurement systems to aid access to small businesses and tech innovators

- Encourage a mindset of experimentation, collaboration and ideation to support the development of new digital products and services for the city

- Act as a single point of contact for London's digital community, receiving and acting on feedback

- Encourage the collection and access of more open data, including data sourced at local authority level

- Instigate a programme of hack-days to invite public involvement in the development of new products and services, leveraging the assets of the city

13
CREATE AN OPEN DATA CHARTER

It is incumbent on the new Mayor to go further when it comes to open data; not just making information available, but actively collating data from across the city that can be used to improve outcomes for citizens and reduce the expense in service delivery. London should seek to become the best city in the world at both making data available for common use, and implementing big data strategies to improve service delivery and efficiency. That will require a Mayor who gives open data the prominence it deserves, as well as addressing real concerns on data privacy and security.

The Mayor should set the standard for clear, transparent and intelligent uses of citizen data by developing an open data charter outlining transparently what data is being collected, on what terms and to what end. The proposal for an Office of Data Analytics should also be taken forward by the new Mayor, in conjunction with the CDO and team.

CONCLUSION:

DEVELOPING DIGITAL LONDON

THIS MANIFESTO HAS BEEN WRITTEN TO PROVIDE A BLUEPRINT FOR LONDON'S FIRST TRULY DIGITAL MAYOR. THE NEXT FOUR YEARS REPRESENTS A VITAL STAGE IN THE DEVELOPMENT OF LONDON AS A DIGITAL CITY.

The Mayor holds a unique position to bring about that change. As the city's primary champion, convenor and connector, they have the power to set the agenda, create the connections and inspire the actions to lead London's digital transformation.

A digital London will be one which touches the day-to-day life of every citizen and company; one where the city and its government becomes open, agile and responsive. Where all London is a digital London; where every London business is a digitally-enabled business; and where every Londoner is a digital Londoner.

These are the changes that will lay the foundations for the future of the city, for not just years but decades ahead. Decisions now that build a digital instinct and approach into the heart of the city, will pay dividends far beyond the term of the incoming Mayor, as well as generating significant benefits for London's citizens in this term.

For people: it means public services that are more readily accessible and adaptable; opportunities to develop new digital skills; and the chance to play a greater role in how their city is governed, and how digital services are developed. It means a digitally-enabled transport system where travel information is more immediate, targeted and available; and ultimately, where autonomous cars ('smartphones on wheels') begin to appear on London's streets.

For businesses: it means an improved supply of homegrown talent; enhanced infrastructure enabling more to start and scale; and better access to public procurement opportunities. It means improved connectivity that will allow businesses to provide more data-related services, and employees to work virtually more seamlessly.

For the city: it means shifting its role from a digital enabler to a digital actor; fully integrating a digital approach into the heart of municipal governance; transforming the way it provides services; and establishing its credentials as the world's leading digital city.

Digital government, digital services, digital citizens and digital companies. All will be needed to ensure London fulfils its rich potential as a prosperous, open and inclusive global city. All can be enabled and supported by the Mayor, in their multi-faceted role as convenor, champion, connector, exemplar and advocate.

The means and the will to drive London's next wave of digital transformation are at hand. London's thriving community of digital entrepreneurs, investors and experts represents a major resource of expertise and ideas for the City Hall to tap. The onus now is on a new Mayor with the vision and ambition to make digital London a reality.

A DIGITAL LONDON WILL BE ONE WHICH TOUCHES THE DAY-TO-DAY LIFE OF EVERY CITIZEN AND COMPANY

ADVOCATES SURVEY

The following are results from a digital survey of Tech London Advocates, conducted during December 2015 and January 2016. There were 304 participants.
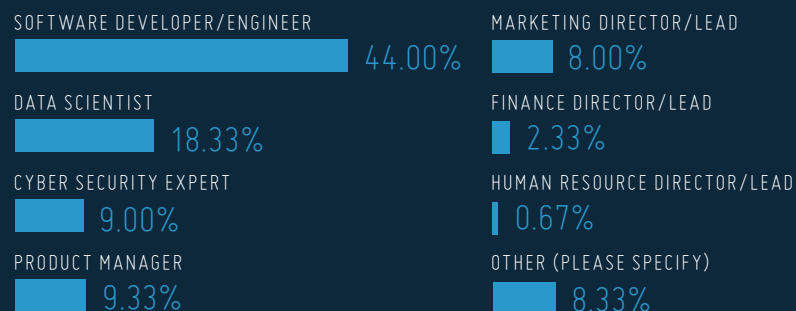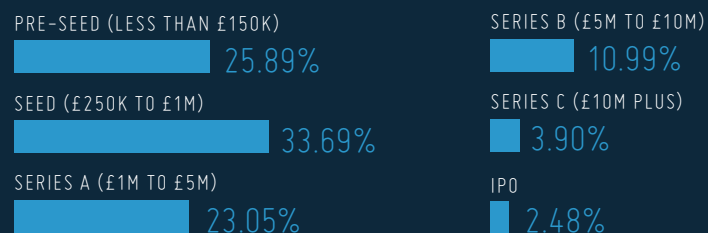
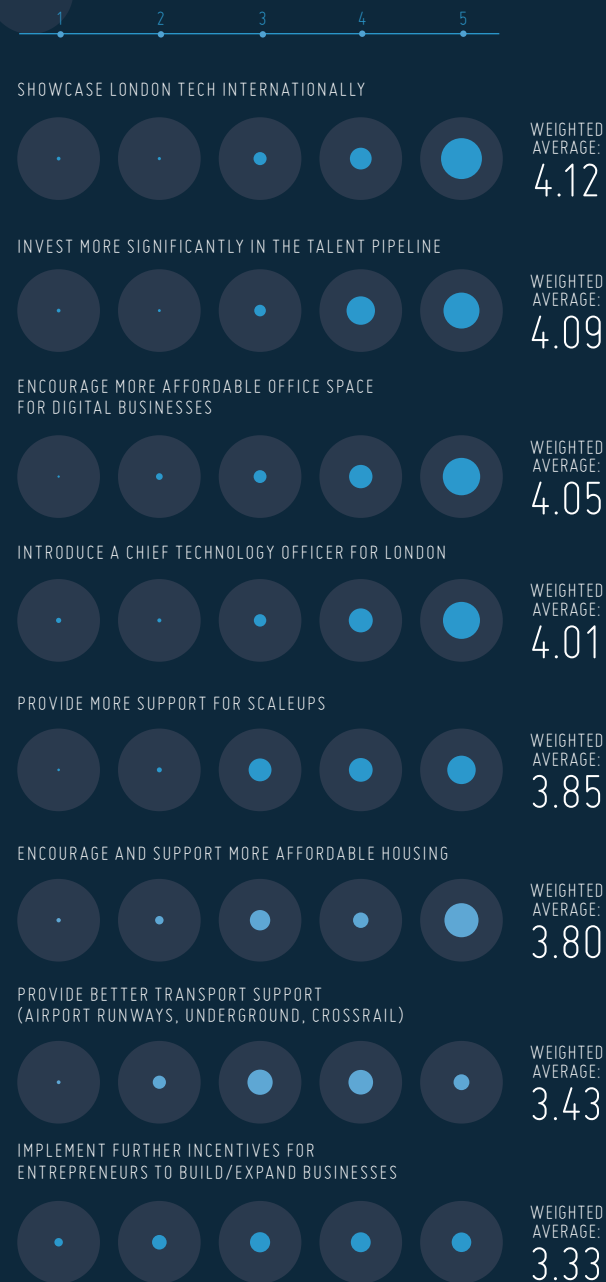## WHAT IS THE SINGLE BIGGEST CHALLENGE FACING LONDON'S TECHNOLOGY SECTOR?

SHORTAGE OF TALENT
43.38%

OFFICE SPACE
5.63%

IMMIGRATION LEGISLATION
8.94%

BROADBAND SPEEDS
4.97%

LACK OF DIVERSITY AND WOMEN IN TECH
12.58%

OTHER (PLEASE SPECIFY)
6.95%

ACCESS TO FUNDING
17.55%
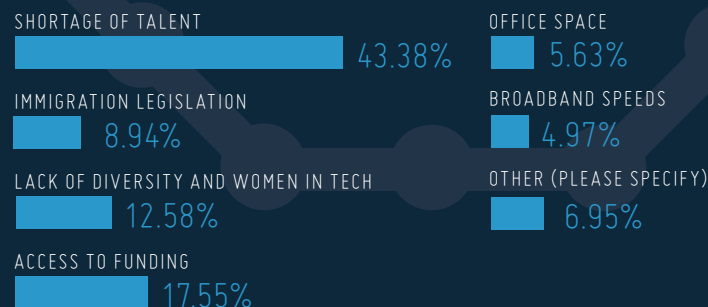
WHAT PROFESSIONS ARE MOST URGENTLY REQUIRED BY LONDON'S DIGITAL BUSINESSES?

SOFTWARE DEVELOPER/ENGINEER
44.00%

MARKETING DIRECTOR/LEAD
8.00%

DATA SCIENTIST
18.33%

FINANCE DIRECTOR/LEAD
2.33%

CYBER SECURITY EXPERT
9.00%

HUMAN RESOURCE DIRECTOR/LEAD
0.67%

PRODUCT MANAGER
9.33%

OTHER (PLEASE SPECIFY)
8.33%

AT WHAT STAGE IS FUNDING MOST DIFFICULT TO OBTAIN FOR DIGITAL BUSINESSES IN LONDON?

PRE-SEED (LESS THAN £150K)
25.89%

SERIES B (£5M TO £10M)
10.99%

SEED (£250K TO £1M)
33.69%

SERIES C (£10M PLUS)
3.90%

SERIES A (£1M TO £5M)
23.05%

IPO
2.48%

ON A SCALE OF 1 TO 5, WHICH OF THE FOLLOWING COULD THE MAYOR OF LONDON DO TO BEST HELP THE CAPITAL'S TECHNOLOGY INDUSTRY. (1 BEING NOT HELPFUL, 5 BEING VERY HELPFUL)

1   2   3   4   5

SHOWCASE LONDON TECH INTERNATIONALLY
WEIGHTED AVERAGE: 4.12

INVEST MORE SIGNIFICANTLY IN THE TALENT PIPELINE
WEIGHTED AVERAGE: 4.09

ENCOURAGE MORE AFFORDABLE OFFICE SPACE FOR DIGITAL BUSINESSES
WEIGHTED AVERAGE: 4.05

INTRODUCE A CHIEF TECHNOLOGY OFFICER FOR LONDON
WEIGHTED AVERAGE: 4.01

PROVIDE MORE SUPPORT FOR SCALEUPS
WEIGHTED AVERAGE: 3.85

ENCOURAGE AND SUPPORT MORE AFFORDABLE HOUSING
WEIGHTED AVERAGE: 3.80

PROVIDE BETTER TRANSPORT SUPPORT (AIRPORT RUNWAYS, UNDERGROUND, CROSSRAIL)
WEIGHTED AVERAGE: 3.43

IMPLEMENT FURTHER INCENTIVES FOR ENTREPRENEURS TO BUILD/EXPAND BUSINESSES
WEIGHTED AVERAGE: 3.33

GLOSSARY OF TERMS

Big Data: Large, unstructured data sources which can be collated and queried at speed to derive insights and inform organisational decision-making.

Corporate Venturing: Investments by corporations and larger businesses into start-ups.

Enterprise Investment Scheme: Government scheme which provides tax reliefs to incentivise investors to buy shares in smaller companies.

Follow-on-funding: Secondary, tertiary or additional rounds of finance raised by a company from its investors.

Internet of Things: A digitally connected network of physical objects and devices, with an ability to send and receive data.

Notspot: Locality with slower-than-average broadband connectivity, which may be due to specific local geography or factors.

Open Internet: Access to the Internet whereby all legal information is accessible on an equal basis, without the manipulation of Internet Service Providers to favour given commercial interests.

Seed Enterprise Investment Scheme: Parallel Government scheme to EIS, which offers tax reliefs to incentive investors to buy shares in early-stage companies (with no more than 25 employees or £200,000 in gross assets).

Seed funding: Capital raised before a business launches, to fund the start-up phase.

Series A funding: First round of finance raised by a trading company.

Smart cities: Umbrella term for the integration of digital infrastructure into the operation of a city, to improve efficiency of municipal services, the adaptability of urban management and personalise the relationship between a city and its citizens.

Ultrafast broadband: Broadband which delivers speeds ranging from 100Mbps to 1Gbps.

Wearables: Technology integrated into devices which can be worn in clothing or on the body.

ACKNOWLEDGEMENTS

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