



**THE
GLOBAL
CITY**

Collaboration and Co-Creating

The Changing Tech Landscape in the Square Mile

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Contents

Foreword



One of the great features of the City of London is that you will find medieval churches and halls alongside the offices of thriving tech start-ups and major multinationals. We have always seen innovation alongside history, and tech is the latest permutation with the City establishing itself as a hub for tech firms, along with being a centre for well-established financial and professional services industries. This is no coincidence. One of the things that makes London so attractive to tech firms is its advanced and interconnected business ecosystem. The clusters of expertise in fields such as banking, consultancy, law, insurance and accounting mean that all the services a new business needs are right here on the doorstep, along with a talented workforce drawn from across the globe.

Similarly, the growth of tech in the City has enhanced and strengthened the other businesses here – who benefit from both the technological innovation and the influx of innovative thinking. Innovation is a crucial ingredient to the UK's continuing success as a centre for global finance. This report sets out why innovation is so important, how the tech landscape is evolving and what we need to do to ensure tech continues to flourish. The City's tech firms have a central role in keeping the UK at the forefront of global innovation.

Alderman William Russell

Rt Hon Lord Mayor of the City of London

Catherine McGuinness

Policy Chair of the City of London Corporation

What's on the Horizon?

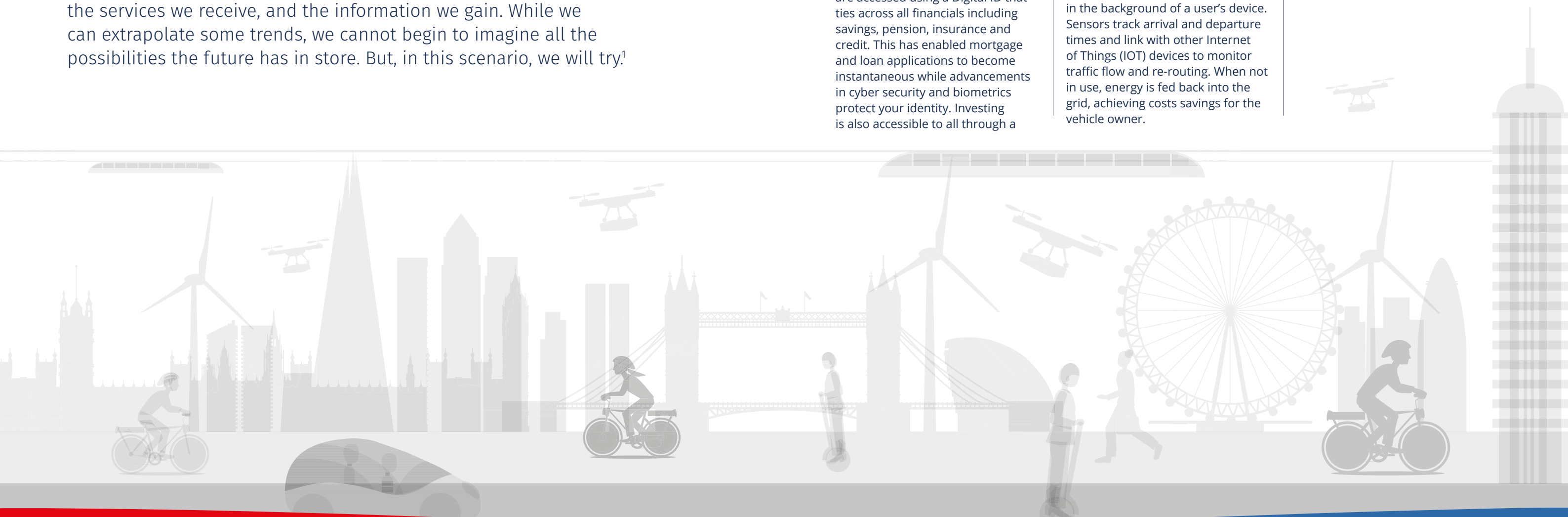
Picture yourself 5, 10, or even 20 years into the future. Is what was once emerging tech now widespread? What new niche areas are being explored? How has tech sustained or disrupted innovation in the world around us? Life in 2040 could look vastly different than today. Technology will impact the way we interact with each other, the services we receive, and the information we gain. While we can extrapolate some trends, we cannot begin to imagine all the possibilities the future has in store. But, in this scenario, we will try¹

Commerce - The strength of challenger banks has increased and digitally native banks are the new normal. Society is cashless, and trading is done through central bank digital currencies. New partnerships have emerged, with some banks working with bigtech to strengthen their market position, improve data analytics capabilities, and deliver products through open finance. On an individual level, financial accounts are accessed using a Digital ID that ties across all financials including savings, pension, insurance and credit. This has enabled mortgage and loan applications to become instantaneous while advancements in cyber security and biometrics protect your identity. Investing is also accessible to all through a

personal portfolio of interests on a mobile app. This portfolio shows not only value but impact on the environment and society, and you can dial your interests up or down based on your preferences.

Energy - Autonomous electric vehicles are commonplace, tied into a country-wide renewable energy smart grid. Vehicles can be directed to complete tasks or pick up passengers, while the platform runs in the background of a user's device. Sensors track arrival and departure times and link with other Internet of Things (IOT) devices to monitor traffic flow and re-routing. When not in use, energy is fed back into the grid, achieving costs savings for the vehicle owner.

Environment - The cost of nature is fully factored into all products and services. The carbon cost of all public and private operations is automated and tamperproof, traceable through blockchain. Data and algorithms are used to put automatic limits in place, triggering carbon exchanges and investment in decarbonisation tools. Direct and indirect impacts are verifiable, ensuring global targets are met.



Health - Your personalised medical and dental plan is easily accessible through your Digital ID. Events are automatically shared between providers, so that specialist appointments are automatically booked with the next available physician. This information syncs to your smart device, monitoring changes in vitals and predicting risks based on your health history. Upon realising trigger events, automatic activities are scheduled, and regular check-ups are slotted into your diary automatically to match your availability. In medical centres, nurses work with robots to enable rapid diagnosis and testing, while maintaining patient standards of care. Hospitals have expanded 3D printing capacity, addressing organ shortages to save lives.

Transportation - People and goods travel throughout the country via a network of safe, coordinated, high-speed and carbon neutral transport modes. Increased investment in rail networks and train automation improve journey times and reliability. Changes to international aviation are also taking place, with hybrid-electric commercial planes becoming commonplace. New forms of journey planning applications, Digital ID services and payment methods automate ticket purchases and boarding. Mobility as a Service plans calculate your monthly travel expenses and automatically purchase the best travelcard or subscription. Enhanced and dense networks of sensors and connected devices enable real-time

data collection and transmission, ensuring current travel information is always available. Micromobility modes such as dockless e-scooters and bikes are plentiful and easily accessible, providing more choice and convenience for local travel. Autonomous vehicle technologies help to nearly eliminate road accidents and casualties, and improvements to the public realm and stations help make travel safer and more accessible to people with disabilities and mobility impairments.

Retail - XR² experiences become a staple in fashion, homeware, and other forms of retail. You can instantly visualise size, style, and shape of products in real surroundings or on your body. Each item has a sustainability score, and alternative items or brands are immediately highlighted in response to your personal targets. Supply chains are fully autonomous, meaning that when you select an item it is instantly in production. Run completely through cloud, smart logistics take products through order, production, and delivery to your door. A system of electric subterranean and unmanned aerial vehicles manages deliveries, taking freight vehicles off the streets and creating more green space.

Of course, there will be many more ways tech impacts our lives that cannot be anticipated yet. From agriculture to future of work, civic engagement to deep fakes, and even space travel, the future in 2040 may look very different from today depending on the speed and level of innovation.

The scenarios above illustrate that business lifecycles are intertwined with tech. Advancements in tech change the dynamics of a mature market, creating space for new products and business models. Once these models become dominant, businesses shift to compete around use of new tech and incrementally innovate their offering. Activity revolves around creating complementary assets, or creative combinations of products and services already on the market. Ultimately this new market matures, and the cycle of innovation starts again. What begins as niche becomes emerging and widespread, making room for fresh ideas.



The Future is Tech

The landscape of businesses in the Square Mile is changing, with an increasing number of tech companies located in, or around, the area. These tech companies collaborate with other sectors such as financial and professional services, advance emerging technologies, and influence policy.

Whilst the relevance of tech to businesses and individuals is not new, it has strengthened through the Fourth Industrial Revolution and has been further catalysed by COVID-19 and the emergence of new ways of doing things. Moving forward, the role tech companies play in business operations and daily living will continue to grow.

The Square Mile is an attractive place for tech to do business, with many tech companies choosing to locate in or around it. It provides proximity to investment, knowledge and expertise, innovation spaces, and talent to accelerate sustainable business growth. The wider community benefits in being co-located with tech companies, gaining new insight into processes, efficiencies, and data capture. Together, this creates a vibrant City cluster that is fit for the future.

Tech companies, like all businesses, require support to grow, scale and successfully integrate their solutions. In the past, these companies have been framed as competitors and disrupters to traditional ecosystems, rather than collaborators that can improve service offerings. This has stifled innovation and investment in digital transformation from progressing to the full extent possible. It also risks knock-on effects to competitiveness of other sectors such as financial and professional services. Now is the time to change this narrative and raise awareness of the value



of the tech sector, and the work being done to support it. In doing so, we can maintain London's status as a leading innovative ecosystem and a burgeoning hub for tech development.

This report will examine the changing landscape of tech in the UK and the value it contributes to innovation and wider economic growth. It makes the case that investment in tech, greater tech adoption, and innovation are necessary to prepare for the

demands of the future. This report will also focus on why the Square Mile is a great place for tech to flourish and respond to demands for innovation. Case studies are provided throughout to showcase some of the leading tech activities happening within the area, whether it be in financial services, food delivery, legal services or sustainability. Each of these companies is located within the Square Mile and benefits from wider network effects and engagement with the ecosystem.

The Scale of Tech Worldwide

Tech is changing the way we live and work. It has become integrated, or even synonymous, with innovation.

The way we use tech impacts everything from business operations, to design, and banking. It creates new ways of doing things to improve processes and efficiencies and brings value to products and services.

As globalisation increases, tech companies expand across borders and start to scale worldwide. Those that adopt tech become innovators and global hubs, setting trends and business standards. Those that do not risk falling behind.

Case study: Salesforce

An expanding presence of bigtech that influences innovation

salesforce

Salesforce is the global leader in enterprise Customer Relationship Management (CRM) software, bringing companies and their customers together in the digital age. As a trusted digital advisor to CEOs and companies in the UK and Ireland, Salesforce supports companies of all sizes to accelerate their digital transformation – from major corporations like Unilever, and smaller firms like PensionBee, to thriving start-ups like GoCardless.

The pandemic will have a lasting, long-term impact on the UK's economy. One thing is clear; COVID-19 has accelerated the digital transformation of all aspects of society. This digital trend was already underway, but now is vital to the very survival of a business. It is imperative that companies remain agile enough to continue the rapid pace of digital transformation that we have seen over the past 18 months.

As a technology company, Salesforce values constant innovation to advance

its industry and company. It offers three releases a year and is constantly innovating so customers can automatically access the latest technologies, allowing them to innovate, build, and stay ahead in their industries.

In the context of a rapidly evolving workplace, Salesforce is also investing heavily in bridging the digital skills gap. This benefits customers and all businesses operating in an era of fast-paced innovation and digital transformation.



“Offices will continue to play an important role in the workplace, but they will be used in more innovative and flexible ways. This is a once-in-a-generation opportunity to reimagine how we work for the better.”

Jose-Luiz Moura

Senior Vice President and Chief Operating Officer at Salesforce UK & Ireland

Tech's influence on daily living

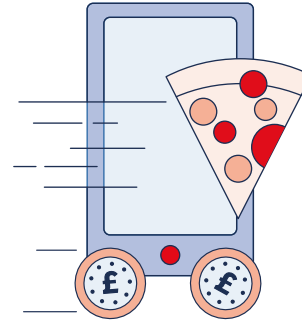


Consider the last year. Global ways of working have completely changed because of the possibilities created through tech. COVID-19 has demonstrated our need for connectivity and forced a shift from risk aversion towards resilience and speed of recovery. It has led to new challenges, and use cases for tech, such as remote working, taxation, and online retail and commerce.

Best practices will emerge and some of the trends we have seen will continue. Global businesses, cities, and universities will adapt and influence their competitors. Employees will move between cities and countries, bringing this knowledge to their new homes.

24.8m

number of people in the UK that used a food delivery app in 2020³

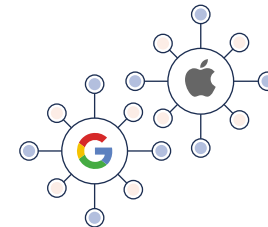
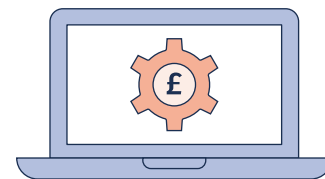
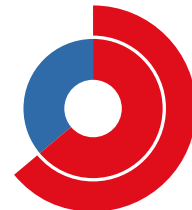


£6.85bn

projected revenue by 2025⁴

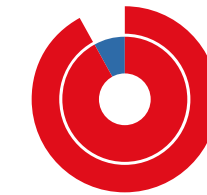
64%

adults using fintech to manage account activity in 2020⁵



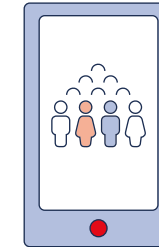
5.7m

number of apps available on Google and Apple platforms⁶



92%

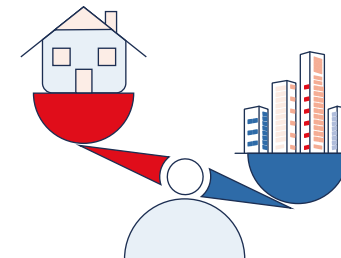
adult internet users in the UK⁷



99% - adults aged 16 to 44 in the UK using the internet⁸

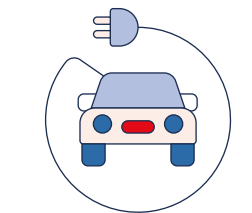
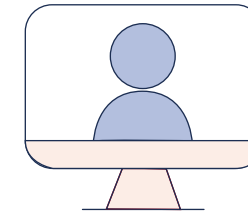
85%

homeworking adults in the UK who want a hybrid approach in the future⁹



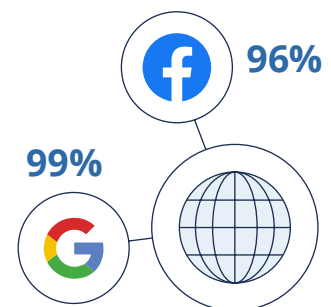
145m

daily Microsoft Teams users as of 2021 (up from 13 million in 2019)¹⁰



850 000

number of electric or hybrid electric cars in the UK¹¹



Google (99%) and Facebook (96%) reached almost all online adults in 2019¹²



Edtech – doubled in investments between 2019 and 2020¹³

The growing depth and breadth of tech is not just a driver in our daily lives, but an economic powerhouse. Tech companies consistently generate economic revenue and attract further investment and development to an area.

\$585bn

value of the UK tech start-up and scale-up ecosystem¹⁴

\$32bn

amount UK tech unicorns have raised in venture capital investment¹⁵

\$95bn

total tech spend by UK financial services firms in 2019¹⁶

Case study: Vanguard Asset Management

A space to bring together networks and create digital solutions

Vanguard®

Technology can be a huge catalyst for creating a successful savings and investing culture in the UK and delivering consumers a better chance of investment success. Already, technology is being used to radically improve the ability of UK consumers to understand their financial needs, bring together their financial information, understand their costs and services, and to make effective comparisons between financial service providers.

Vanguard is a vocal proponent of the advancement of digitalisation within the financial services industry and specifically, investment management. Technology plays a key role in how it serves its investors, increasing efficiency and reducing operational risk. Effective use of technology allows Vanguard to enhance the breadth and depth of its proposition to clients, while keeping running costs low so it can maximise value to investors.

In April 2021, Vanguard Personal Financial Planning (VPFP), a new financial advice service on Vanguard's UK Personal Investor platform,



launched in the UK. With an all-in cost of just 0.79%, VPFP combines the use of digital technology, cutting edge advice methodologies and the expertise and experience of Vanguard's financial planners to deliver low-cost, bespoke financial advice for investors preparing for retirement.

The Square Mile represents a unique ecosystem, bringing together financial services companies, fintech and investors. Reflecting this, Vanguard Europe's Chief Information officer, Barbara Gottardi, recently joined the TISAtch Advisory Board¹⁷, a group made up of 17 organisations

across financial services, which is focussed on creating effective networks to drive further innovative digital solutions.

“

As one of the world's leading global financial centres, London, its financial services and technology industries, and their constituents have an unparalleled opportunity to create transformational digital solutions to the benefit of UK consumers and the wider economy. Being based in London means Vanguard has access to technological talent and partnerships that allow us to develop and offer the most up-to-date customer-centric digital solutions.

Barbara Gottardi
Chief Information Officer at Vanguard Europe

As we explore constantly evolving technologies like artificial intelligence, big data, quantum computing, and virtual and augmented reality, we will continue to discover new ways of doing things and encourage economic growth.

How we combine these tools and interact with them will create powerful advancements. But we must also do so with caution, working to combat risks of deepening inequalities and the impacts of a digital divide.

Both public and private sectors have roles to play in supporting sustainable tech development. Research, investment, exploration, community engagement and test beds are some of the tools available to understand impacts of tech, to test scenarios, and to accelerate innovation. How the ecosystem works together is paramount to success.

Case study: Starling Bank and InstaVolt initiative

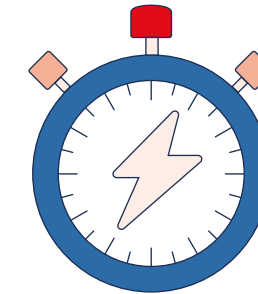
Access to partnerships that can power a green economy



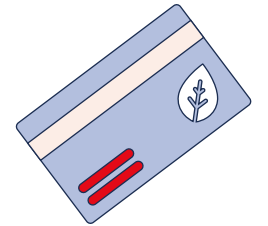
Starling Bank's mission is to be a digital, branchless, paperless bank running on renewable energy. As part of this, it recently partnered with the rapid electric vehicle (EV) charger network InstaVolt. InstaVolt is the leading owner-operated network of rapid EV chargers with more than 600 existing chargers and a growing portfolio of corporate partners. The brand's technology delivers rapid charge via a simple, contactless payment, with no monthly subscription or membership cards required, and its latest 120kW charge points can add 220 miles of range in half an hour.

As part of this collaboration, Starling will utilise InstaVolt's rapid charging network as a full-service advertising channel to engage with the emerging market of EV drivers. Every time someone pays with their Starling card (via InstaVolt's App), Starling will plant a tree. The relationship demonstrates Starling Bank's determination to look after the environment by recognising the growing popularity of EV, rapid charging and the value they now hold as an advertising channel.

In March 2021, Starling became the first UK bank to start issuing Mastercard debit cards made from recycled plastic, giving customers a greener way to pay. In addition to the InstaVolt partnership, Starling plants trees for customer referrals. It is also undertaking a carbon emissions audit in order to further reduce its carbon footprint and offset emissions.



InstaVolt's latest 120kW charge points can add 220 miles of range in half an hour



Starling became the first UK bank to start issuing Mastercard debit cards made from recycled plastic, giving customers a greener way to pay.

“

We know that many of our customers care deeply about the environment. InstaVolt is a driving force in electric vehicle charging and our partnership fits perfectly with that.

Anne Boden
Founder and CEO of Starling Bank

Tech's Impact on Business

Tech is a massive source of disruption. As it develops, tech blurs the barriers between sectors and industries, underpinning a host of tech enabled services. Possibilities for digital innovation seem endless in the Fourth Industrial Revolution.

Emerging Types of Tech



As we explore this potential, tech will play an increasingly essential role in business. It could help achieve anything from pathways to decarbonisation, to streamlining public services, to trading digital currencies, or powering robots for life-changing medical procedures.

This environment is fast and agile. Tech will continue to disrupt supply chains, platforms, services, and consumer engagement. In response, the regulatory landscape will also change, defining requirements on topics such as data, privacy, and cyber security.

Businesses that remain reticent to adapt will lose their competitiveness and be unable to trade in an interconnected world. Yet, this is a two-way street. Tech also needs to deliver real value by creating solutions-driven products in an ethical and open manner. Mutual trust will be an essential element of integration. To solve this challenge, collaboration and co-creation between ecosystems is imperative.

Case study: Innovation Ambassadors

Engagement with collaborative cross-sectoral forums



Innovation Ambassadors is a legal innovation programme designed and delivered by the City Corporation in collaboration with KPMG. Participants are encouraged to re-think how technology can transform legal services and build their digital literacy skills with tools on the market.

The pilot, conducted virtually over 4 weeks, brought together 55 professionals from across legal services, including private practice, in-house, and regulatory representatives and encouraged greater collaboration. It also introduced participants to UK lawtechs as a way of strengthening the feedback loop between problems and solutions. In the 6 months following the programme, 68% of participants developed innovation projects and 82% were still in touch with their fellow cohort.



The Innovation Ambassadors programme demonstrated how much opportunity and enthusiasm there is for transformation in the delivery of legal services. By bringing together a diverse talent pool from across private practice, in-house legal teams and the regulators, we demonstrated the power of having a growth mindset and true collaboration to build out solutions.

Nicola Brooks

Director, Head of Legal Operations and Transformation Services, KPMG

68%

In the 6 months following the programme, 68% of participants developed innovation projects

Case study: Simudyne

A place to accelerate innovation, exchange information, and pilot new ideas



Simudyne

Simudyne is a simulation technology company that provides advanced modelling and simulation for financial markets. Recently, Simudyne opened a new headquarters office in the Square Mile. Now at the heart of the financial centre, Simudyne is benefitting from the location as a place to collaborate with clients in the Square Mile, especially large institutions, exchanges and asset managers.

By deploying technology, Simudyne helps institutions and governments generate greater insight and foresight to solve complex problems and make better decisions. Specifically, it uses advanced modelling and simulation to train human and artificial intelligence. This results in better strategic execution across capital markets and portfolio management as well as risk mitigation and operational performance for clients, investors and other stakeholders.

In essence, by being better able to predict how financial markets and the institutions and investors that make them up interact during both normal and stressed conditions, financial markets leaders can make better decisions for their stakeholders and more broadly for the greater good of society.



The Square Mile is an ideal hub for client activity and innovation as well as for interacting with clients and investors in London and from abroad. One of our closest partners is a large exchange nearby. We find the geographic proximity to it and to other institutions and regulators a distinct advantage to our business and our international network.

Justin Lyon
CEO of Simudyne

Tech in the UK

The UK's tech ecosystem is one of the most competitive in the world. As of July 2021, 100 tech unicorns have been headquartered in the UK.¹⁸ This number has risen by 127% since 2017, with 13 created in 2021 alone.¹⁹

3rd

UK is third globally for most tech start-ups and unicorns created²⁰

70,086

start-ups and scale-ups with headquarters in the UK²¹

350

More than 350 start up incubators and accelerators across the country²²

7

fintech bridges between the UK and other countries²³

These unicorns put a wealth of knowledge back into the ecosystem to support the next generation of start-ups in success. They also attract further investment to the ecosystem to support overall growth. In 2020, a new tech business was created every 30 minutes²⁴, and there are already 132 futurecorns on the horizon.²⁵

34%

of UK unicorns are fintech, 14% healthtech, 8% traveltech, 5% foodtech, 4% gaming²⁶

100%

Total value of investments in edtech in 2020 doubled from year previous²⁷



Case study: Funding Circle

An attractive place for tech unicorns to access and serve the market



Headquartered in the Square Mile, with offices in San Francisco and Denver, Funding Circle is the UK's largest loan platform for SMEs. Founded in 2010, a wide range of investors are using its technology and distribution platform to lend more than £11.5 billion to approximately 100,000 businesses globally. Providing SMEs with access to the finance they need to grow powers the economy; it is estimated that in 2020, lending through the Funding Circle platform helped contribute £10bn to global GDP and support 135,000 jobs.

As with many sectors, COVID-19 has increased the adoption of digital technology by small businesses. Across 2020, online searches for business loans were 5.3 times higher than 2019, accelerating an existing trend. Once SMEs experience the speed and simplicity of online finance, they rarely look back; 86% of first-time users say they will return to Funding Circle in future.

Ten years of R&D by Funding Circle has created powerful machine learning models, while its market-leading Instant Decision Lending technology enables small businesses to apply for finance in an average of six minutes, with lending decisions in just nine seconds—creating a seamless borrowing experience.



“

At Funding Circle we're building the place where small businesses get the funding they need to win. This requires the best in machine learning technology and dedicated SME expertise. Our location in the heart of the Square Mile allows us to benefit from its strong fintech ecosystem, helping our online platform to support SMEs in every corner of the UK.

Lisa Jacobs

Europe Managing Director at Funding Circle

The growing tech sector is a signal of the strength of research and development in the UK, as well as the investment and collaboration frameworks present. Without both, tech companies would not be able to scale to such a high level.

In London more specifically, the presence of domestic and international talent, investment, collaboration spaces, and expertise creates a burgeoning ecosystem for tech. With venture capital tech investment at £10.6bn, London ranks 4th worldwide.²⁸ It is also an increasingly popular place for unicorn techs to list, with Deliveroo and Wise listing on the London Stock Exchange in 2021. With a strong presence of world leading financial and professional services clusters, the City is ripe with opportunities, propelling high growth small and medium sized tech enterprises forward.

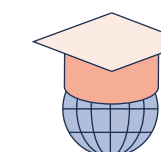
76,114

people attended international meetings in London in 2019²⁹



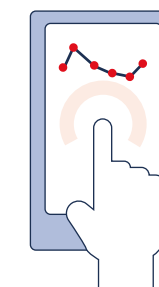
18.3%

enrolled students in UK are from abroad³⁰



40%

of all capital raised on the London Stock Exchange last year was for tech and consumer internet firms³¹



\$486k

average early-stage funding for a London start-up (compared to \$284k global average)³²



Case study: Deliveroo

A combination of talent and technology that leads to new opportunities



Deliveroo was founded in 2013 in London with the aim of bringing great food directly to people's front doors. Eight years later, Deliveroo has transformed the food delivery space using cutting edge British-born technology to create a pioneering logistics service that supports over 135,000 restaurants and grocery stores across the world to access new customers and grow their businesses.

Tech is at the centre of Deliveroo, and its own innovation - the 'Frank' algorithm - plays a key role in finding the best way of connecting riders, restaurants and customers. This intelligent technology is continually improving its knowledge-learning capabilities in working out delivery calculations - from the time it takes to prepare a meal to the quickest route between a restaurant and customer - to make the service even more efficient. Alongside this algorithm sit three world-class apps supporting consumers, restaurants and riders to easily access the platform. Deliveroo is constantly launching new tools and tech products to support riders - such as its speedy 'Cash Out' service, and

restaurants - who can benefit from Deliveroo's white label Signature offering, allowing them to access Deliveroo's rider network via their own websites or apps. Deliveroo was the pioneer of delivery-only kitchens creating 'Editions Kitchens' in 2017 to help restaurant partners increase sales and reach new customers without the cost of setting up a new premise.

The Square Mile is a centre for innovative tech, benefitting from a huge number of skilled tech professionals. At its headquarters in Cannon Street, Deliveroo is creating one of the city's biggest tech hubs and is currently looking to hire a further 400 software engineers, data scientists and product managers to drive future growth and create more innovative products to help restaurants reach new customers, improve rider experience, and give customers access to the food they love.

400

expected new hires across tech roles

“

London is not only a fantastic place for tech, it's a great city to live, work and eat. I'm proud to have started Deliveroo and to have made the first delivery here in London, and our growth is testament to the city's ecosystem of technology, investment and highly skilled workforce.

Will Shu

Founder and CEO of Deliveroo

Spotlight: The Square Mile



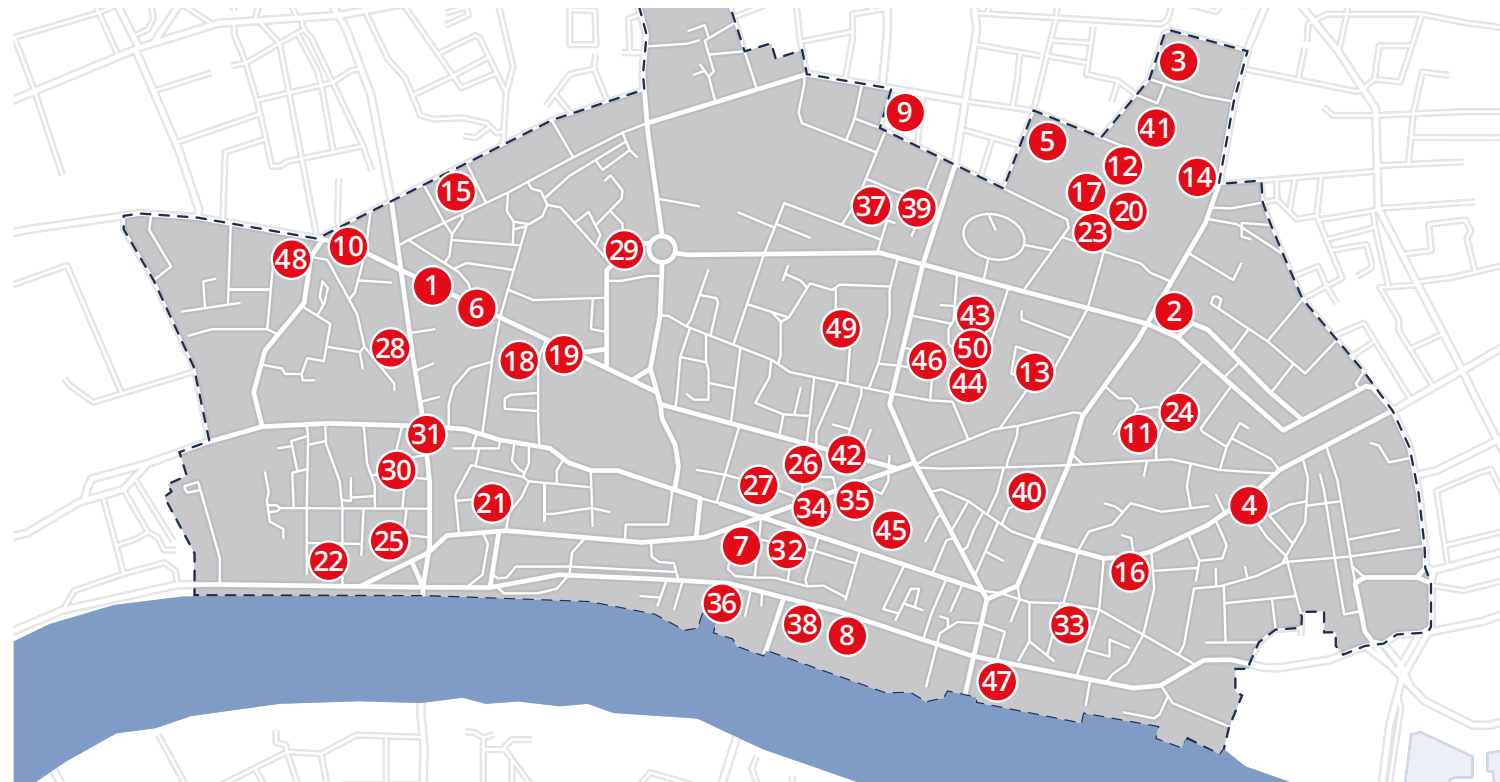
Tech Presence

The City of London, or Square Mile, is recognised globally for its strength in financial and professional ecosystems. Even though it is only 1.12 square miles in size, 16,001 businesses are registered in the area. These businesses create the ecosystems that support tech in growing, scaling and integrating. They act not only as advisors and investors, but as a pipeline for product sales and tech adoption.

This also includes retail, creative cultural and hospitality businesses that deploy technology. The number of clusters in a relatively small area brings a vibrancy and a unique value to the entire ecosystem. Collaboration between this outstanding environment raises the quality of innovation in the City and leads to digital breakthroughs that may otherwise not be possible.

The innovative ecosystem also creates early-stage market access and client development opportunities. It provides an interesting test bed to pilot solutions for business and individual needs. This agglomeration effect, including nearby financial and professional services throughout London, ensures that all tech companies have a wealth of opportunities to collaborate and scale.

Square mile major players



Tech companies

- 1 Amazon
- 2 Salesforce
- 3 Monzo
- 4 OneTrust
- 5 Starling Bank
- 6 Just Eat
- 7 Funding Circle
- 8 Deliveroo
- 9 Markit
- 10 Octopus Energy
- 11 Ki Insurance
- 12 Onfido
- 13 Pollinate
- 14 Bulb
- 25 Backstop solutions
- 26 Abide financial
- 27 Fly now pay later
- 28 Backbase
- 29 Deepcrawl
- 30 Spektrix
- 31 Crowdscores
- 32 Smarsh
- 33 Trustpilot
- 34 Rakuten – fitsme
- 35 Eze software
- 36 Alpha Sights
- 37 Emailage
- 38 Recordsure
- 39 Suade Labs
- 40 Simudyne
- 41 Tessian
- 42 Eigen technologies

Innovation Hubs

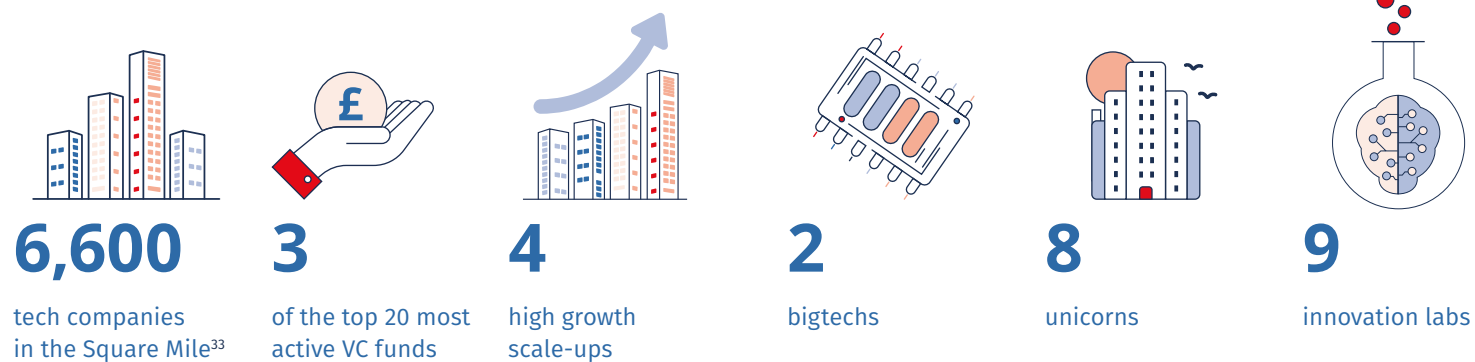
- 15 Innovation Warehouse
- 16 Fintech Innovation Lab
- 17 Resurgo Ventures
- 18 Deloitte Legal Ventures
- 19 Hogan Lovells Global Fintech Mentor
- 21 BNY Mellon innovation centre

Supporting organisations

- 20 Tech Nation
- 22 Nesta
- 23 Innovate Finance
- 24 TheCityUK
- 49 City of London Corporation
- 50 UK Finance

Investors

- 43 Blackrock
- 44 Standard Life Aberdeen
- 45 Vanguard
- 46 Fuel ventures
- 47 Downing ventures
- 48 Octopus ventures



Case study: Bulb

High growth scale ups that are creating new markets

bulb

Bulb was named the fastest growing company in Europe 2021 by the Financial Times. Since launching in London in 2015, it has grown to serve 1.7 million members around the world, expanded to France, Spain and Texas, and has built a world-class team of 1,000 who are building the future of the energy industry. Bulb is leading the green transition, supplying 100% renewable electricity and 100% carbon-neutral gas to around 6% of the UK energy market. When Bulb started, just 1% of UK households were with renewable energy suppliers, and now that figure is over 30%.

Bulb offers people green energy at great value, whilst providing brilliant customer service and using technology to make managing energy simple. From 2019 to 2020, it doubled the number of members it serves through its fair pricing, technology and excellent service. Bulb's app is the highest-rated energy app for Apple and Android, giving people an easy way to manage and reduce their energy use.

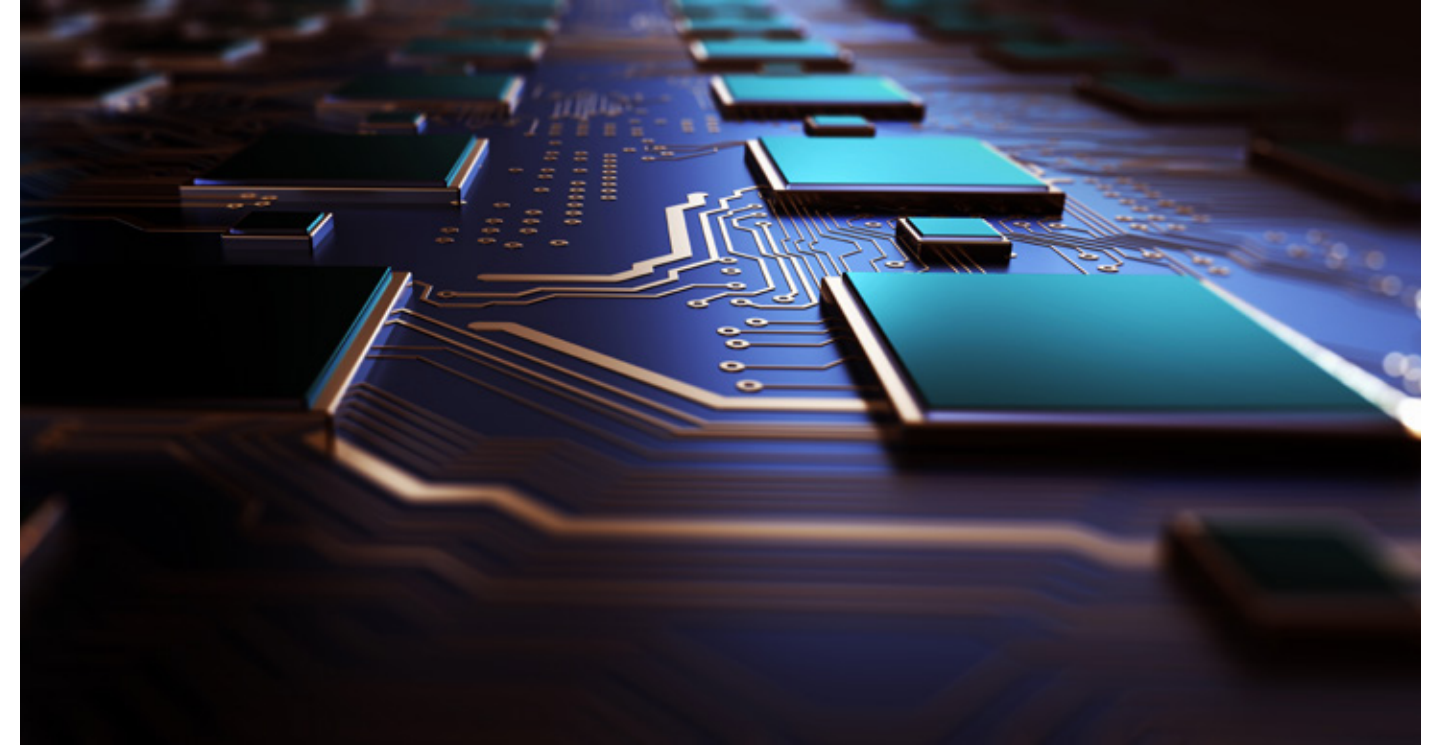
Today, 30% of Bulb's staff are in technology-related roles, building new products like EV and home battery technology to help members switch to smart, low-carbon energy solutions that will help the UK cut carbon emissions and reach net zero by 2050. Bulb is creating highly skilled green tech jobs for developers, software engineers and energy specialists and is helping young people develop skills through apprenticeships in data science and software engineering.

In July, UK Prime Minister Boris Johnson officially opened Bulb's new London HQ in Liverpool Street. The space is designed for learning and collaboration and highlights Bulb's commitment to sustainability and innovation, using locally sourced or recycled, sustainable materials throughout.

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Technology is transforming the way we use energy. Smart meters and smart thermostats are becoming the norm. EVs, in-home batteries and heat pumps are transitioning from niche to mainstream. And renewable generation is accelerating. Our energy world requires smarter and faster consumer-focused technologies to reach net zero. At Bulb we're at the forefront of that change, building platforms and experiences that transform our relationship with energy.

John Marshall
Chief Technology Officer at Bulb



Case study: Ki Insurance

Access to ecosystems that incubate innovation

Ki

Ki is the first fully digital and algorithmically driven Lloyd's of London syndicate, launched in 2020 to redefine the commercial insurance market. Located in the Square Mile, Ki was incubated by Brit Insurance in collaboration with Google Cloud and the University of London and raised \$500m of committed capital from Blackstone and Fairfax in 2020. This was

the largest fundraising for a start-up in Europe in 2020 and has led to Ki becoming a high growth scale-up.

Ki is an example of a data driven and digitally minded collaboration between tech and the insurance market. Its tech is impacting the way insurance services are offered, allowing instant underwriting capacity that is accessible through an online platform.

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We have built Ki in London, for London, and the brokers have embraced the idea that Ki makes Lloyd's a stronger proposition globally.

Mark Allan
CEO of Ki

Infrastructure

From digital connectivity to physical space, technology companies require the infrastructure to build and test their products. This includes digital infrastructure, such as fibre and high bandwidth capable of downloading or uploading large files at light speed. It also includes sensors or data access to train algorithms, and testbeds to trial products before releasing to market.

The Square Mile is home to much of this, creating a supportive atmosphere for tech companies to grow, with unrivalled access to the market. It is a unique place for

private, public, and private-public partnerships to form, and the City Corporation actively canvasses opportunities to test solutions. This supports the innovative ecosystem present and maintains London's overall competitiveness as a thriving place to live and work.

While widespread tech adoption has its benefits, it also poses risks. In the last five years, 92% of businesses in Europe have experienced a cyber breach.³⁴ It is important that cyber security measures are in place as tech grows, to support businesses in maintaining their resiliency and managing impacts of attacks.

Measures should go even further, to provide predictive capabilities and stop threats before they are realised. A healthy cyber security environment is a pillar of an innovative ecosystem and should go hand in hand with digital transformation.

The City of London Corporation, the governing body for the Square Mile, is working to strengthen the ecosystem and make adjustments to infrastructure so it is a world class place for tech firms.



Case study: City of London Corporation

Deploying infrastructure that anticipates and supports future needs



The City Corporation is driving the deployment of shared mobile 4G and 5G infrastructure to improve the experience in its spaces and support a world leading digital experience. Innovations with mobile technology are dependent on blanket highspeed Wi-Fi wireless coverage such as this, across rural and urban areas. This is also increasingly important as physical and virtual workspaces intertwine.

5G is fundamental to connectivity plans and the Square Mile is piloting shared infrastructure deployment in collaboration with all four mobile network operators under the City's Wireless Concession. 10 locations are being trialled utilising City Corporation street furniture, for the first network of its kind in the UK. If successful, full city deployment will take place across over 220 locations at street level and supplement rooftop masts to provide 5G coverage across the Square Mile.



This concentration of small cells will provide the high bandwidth required for 5G technologies to operate and build capacity for mobile networks. The infrastructure is also being fitted with enough space to incorporate 6G down the line, sensors to enable application for smart city technologies and anonymised data collection.

Case study: Digital Sandbox

Tackling silos through access to data and virtual collaboration



The Digital Sandbox³⁵ is run in collaboration between the City Corporation and the Financial Conduct Authority. It is a novel platform to accelerate tech development that solves current market challenges.

The Sandbox provides a space where innovators can access tools to help them develop and test their proofs of concept. Access to data in the quantity and quality needed to train algorithms is a huge challenge to tech development today. The tools in the Sandbox are designed to tackle challenges such as this and to drive tech activity to market faster.

The Sandbox also acts as a wider space to bring together the financial services ecosystem. Current innovation across sectors is fragmented and in silos. Problem statements do not match solutions, and this leads to frustration by users. This results in a less open and more risk-averse attitude towards digital transformation. The Digital Sandbox's features are designed to encourage collaboration and mentorship, to tackle this silo approach and encourage the implementation of new ideas and a seamless consumer experience.

The Sandbox was piloted over three months in 2020-21 and has since advanced into a second phase with a programme of activity over 12 months³⁶.

18 months

reported as highest acceleration seen by participants in the Digital Sandbox

**Case study: Cyber Griffin**

Programmes to protect operations and empower resilience through cyber security



The Cyber Griffin programme was founded in 2017 by the City of London Police, with the aim of protecting the Square Mile from cyber criminality. The project trains a specialist team of police advisors and offers services that SMEs through to multinational organisations can find valuable. Four core services are currently being offered to try and meet the varied business requirements of the community: Baseline Briefing (raising awareness), Table Top Exercises (exploring decisions and leadership buy-in), Incident Response Training (incident response models), and Cyber Capability Assessment (assessing defences and controls).

These core services were successfully adapted into digital versions in April 2020 in response to the national lockdowns and the new remote working dynamic. Coupled with Cyber Griffin's digital delivery platform, these services have helped to substantially increase the programme's offering. To date, Cyber Griffin has delivered over 550 presentations and core services, training over 16,000 people in the community. It has also partnered with 560 client organisations, many of which have engaged with the programme in a sustained manner and regularly engage with the services available.



16,000 people trained through the Cyber Griffin programme

Conclusion

Tech companies consistently generate economic revenue and attract further investment and development to an area. They will play an increasingly essential role in business and contribute to a competitive offering.

The UK's tech ecosystem is one of the most competitive in the world, as demonstrated by the level of investment and number of unicorns headquartered here. The growing tech sector is a signal of the strength of research and development in the UK, as well as the strength of investment and collaboration frameworks. The Square Mile and the City cluster of businesses is home to much of this, creating a supportive atmosphere for tech companies to grow, with unrivalled access to the market for mentorship, investment, and business development.

With support from the City Corporation and a vibrant business ecosystem, the tech community will continue to flourish and develop solutions for the future.

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About the Global City campaign:

The Global City campaign is The City of London Corporation's overarching initiative to promote the UK as a world-leading international financial centre. It showcases the UK as a great place for financial and professional services firms to invest, locate and grow.

theglobalcity.uk



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About the City of London Corporation:

The City of London Corporation is the governing body of the Square Mile dedicated to a vibrant and thriving City, supporting a diverse and sustainable London within a globally successful UK.

We aim to:

- Contribute to a flourishing society
- Support a thriving economy
- Shape outstanding environments

By strengthening the connections, capacity and character of the City, London and the UK for the benefit of people who live, work and visit here.

www.cityoflondon.gov.uk