

UK FinTech State of the Nation





Department for International Trade

About Department for International Trade (DIT)

DIT secure UK and global prosperity by promoting and financing international trade and investment, and championing free trade.

We are an international economic department, responsible for:

- bringing together policy, promotion and financial expertise to break down barriers to trade and investment, and help businesses succeed
- delivering a new trade policy framework for the UK as we leave the EU
- promoting British trade and investment across the world
- building the global appetite for British goods and services



HM Treasury

About HM Treasury (HMT)

HM Treasury is the government's economic and finance ministry, maintaining control over public spending, setting the direction of the UK's economic policy and working to achieve strong and sustainable economic growth.

Responsibilities include:

- public spending: including departmental spending, public sector pay and pension, annually managed expenditure (AME) and welfare policy, and capital investment
- financial services policy: including banking and financial services regulation, financial stability, and ensuring competitiveness in the City
- strategic oversight of the UK tax system: including direct, indirect, business, property, personal tax, and corporation tax
- the delivery of infrastructure projects across the public sector and facilitating private sector investment into UK infrastructure
- ensuring the economy is growing sustainably

INNOVATE | FINANCE

About Innovate Finance

Innovate Finance is an independent membership association that represents the UK's global FinTech community. More than 250 global members have joined the Innovate Finance ecosystem to date. These companies range from seed stage startups to global financial institutions and professional services firms. All benefit from Innovate Finance's leading position as a single point of access to promote enabling policy and regulation, talent development, and business opportunity and investment capital.

About the document and acknowledgments

The FinTech State of the Nation is a comprehensive summary of the UK's FinTech industry to help inform stakeholders for trade and investment and demonstrate the UK's attractiveness as a FinTech destination.

The brochure convenes knowledge and perspectives from industry leaders across the domestic FinTech ecosystem. This collection of expert views broadly covers the UK's past successes, current state, and future objectives in key areas that include: demand, capital, regulation and policy, and talent.

The editors are thankful to all contributors to this document. The time dedicated to sharing their knowledge and experience of the sector is of huge value to the UK and the FinTech community.

Chief Editors:



Tomas Helm
Head of FinTech at the Department for International Trade



Alex Low
FinTech Specialist at the Department for International Trade



Joshua Townson
Policy and Membership at Innovate Finance



Preface

The Rt Hon Liam Fox MP

Secretary of State for International Trade and
President of the Board of Trade

The positive impact of technology on the financial services sector in the United Kingdom is unprecedented globally.

Technology has the power to increase transparency and efficiency, reduce cost, and give the most vulnerable access to financial services. Society and businesses both stand to gain from these changes, as incumbents are challenged by the new wave of digital innovation.

The UK has long been at the forefront of financial services. However, in more recent times, the sector's positive response to the fourth industrial revolution has truly set us apart. The perfect storm caused by growing technology demand, right touch regulation, and customer empowerment in financial services, coupled with the sectors response to the financial crisis, has fuelled FinTech's rapid growth in the UK and its expansion globally.

The UK is the leading global FinTech hub with a thriving ecosystem and international talent pool spanning the whole country. With an increasing number of FinTech firms exporting globally from the UK, we are continuing to set the global standard on the application of technology, and more broadly, innovation in financial services.

Using key stakeholders from across the UK's FinTech ecosystem, this document tells us the story of how the UK's FinTech sector has emerged as the global leader it is today, and why this will continue in the future.



Foreword

The Rt Hon John Glen MP

Economic Secretary to the Treasury

I am proud that the UK has been recognised as the best place in the world to start and grow a FinTech firm, and I am committed to ensuring that this remains the case.

The foundation of our success lies in our leading international financial services sector, combined with a strong consumer appetite for innovative products and services and a regulatory environment that leads the world in the support it provides for innovation. So, it is no surprise the UK is a leading global FinTech hub, and one that promises to go from strength to strength in the coming years.

As the FinTech sector matures, on the back of an increasing demand for technology in financial services, the importance of the sector in sustaining growth will increase further. The UK government recognises the positive impact that FinTech has had on financial services, making it easier, cheaper and faster for consumers and businesses to access products that better meet their needs. FinTech also addresses the needs of underserved markets, including the financially excluded, and it helps to tie together an increasingly interconnected world, promoting trade and global growth.

This document describes the actions that the government, regulators and industry have taken to stimulate and sustain the growth of our FinTech Sector. I hope you'll agree with me that all of this creates a compelling rationale for entrepreneurs to set up their next FinTech venture in the UK and for investors to choose a UK-based FinTech firm for their next major investment.



Contents

PREFACE	4
FOREWORD	6
AN OVERVIEW OF THE UK FINTECH SECTOR	10
THE UK AS A TECH CENTRE OF EXCELLENCE	15
REGIONAL ANALYSIS - FINTECH ACROSS THE UK	17
THE UK'S INVESTMENT ENVIRONMENT	23
FINTECH INVESTMENT IN THE UK	25
A VIEW FROM THE REGULATOR	28
REGULATION: THE BUSINESS PERSPECTIVE	30
FINTECH TALENT & SKILLS	33
THE POWER OF DIVERSITY IN FINTECH	35
FUTURE TECHNOLOGY TRENDS	38
PARTNERSHIPS, CULTURE & INNOVATION: THE KEY TO FUTURE SUCCESS	42
MAKING THE UK THE BEST PLACE IN THE WORLD TO START AND GROW A FINTECH BUSINESS	45
MAKING UK FINTECH MORE COMPETITIVE GLOBALLY	48
KEY MILESTONES	50
CLOSING REMARKS	52
CONTRIBUTORS	54

An Overview of the UK FinTech sector

The background of the page is a vibrant, abstract digital landscape. It features a sky filled with soft, white and yellow clouds. Overlaid on this are numerous horizontal and diagonal streaks of light in various colors, including blue, orange, red, and purple, creating a sense of motion and data flow. The overall aesthetic is futuristic and high-tech.

Innovation in finance has marked a new way of providing consumers and businesses with the technological tools they require to widen their access to new products and services - today we call this FinTech, the future of finance, but it is as much about the 'Tech' as it is the 'Fin'.

FinTech has driven significant and wide-reaching innovation throughout the UK's finance industry. From the latest innovations in insurance to more available products in the crypto-asset space. Or, from the increased availability of open banking platforms to the use of artificial intelligence across the industry, we are seeing how the FinTech sector plays a significant role in encouraging innovative change across our economy. Disruption from FinTech continues to drive change, innovation and inclusion at both a local and global level.

The organic growth of the tech sector, especially around what became known as "Silicon Roundabout" in the 2000s and subsequently endorsed by the government in 2011 as "Tech City", has had far reaching implications for more established sectors of the economy such as finance. Coupled with the rise of the digital economy, increased consumer appetite for digital services and the fall out of the 2008 financial crash that saw a growing mistrust towards traditional financial service providers, the environment was fertile for a technology-driven disruption of more traditional sectors of the economy.

The UK is a global FinTech leader, building on the commanding role London holds as a financial services hub. Investors put more money into UK FinTech than any other European country in 2018. The UK's deep pools of entrepreneurial and tech talent, progressive regulators and policy makers, capital and professional expertise, and its vibrant startups are driving the digital economy.

FinTech thrives where capital, tech and talent connect with regulators and government. The Financial Conduct Authority (FCA) is a key influence in setting standards of regulation globally. The UK government's current FinTech Sector Strategy aims to maintain the UK as the best place to start and grow a FinTech business - through supporting competition and removing barriers to entry and growth.

This State of the Nation is a strong reference point for UK FinTech with contributions from a number of key stakeholders and strategic partners, all of whom have a deep understanding of the UK FinTech sector. Innovate Finance is grateful to the Department for International Trade and all the contributors for making this document possible and we hope it provides the reader with a clear vision as to why the UK will continue to be the global hub for FinTech in 2019 and beyond.

Charlotte Crosswell - CEO at Innovate Finance

UK FinTech overview

+1600

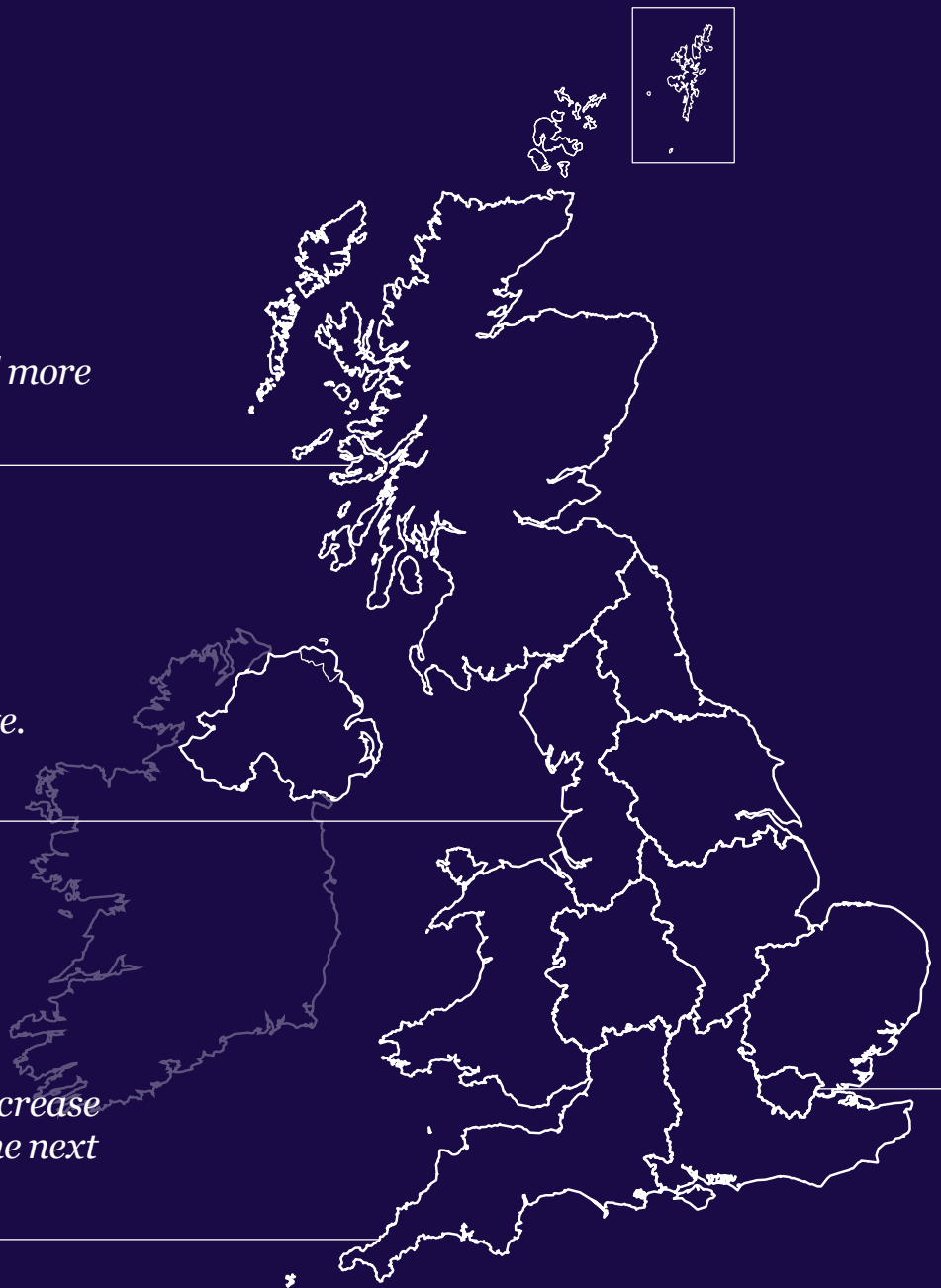
FinTech firms in the UK, estimates suggest this will more than double by 2030

42%

UK's FinTech adoption rate. Global average is 33%

82%

of incumbents expect to increase FinTech partnerships in the next three to five years



89,000

*finance and insurance firms
in the UK*

76,500

*people work in FinTech UK-wide,
this number is set to grow to
105,500 by 2030*

\$3.3bn

*of VC, PE and CVC investments
into UK FinTech in 2018*

42%

*of workers in UK FinTech
are from overseas*

56%

*of traditional financial
institutions have put disruption
at the heart of their strategy*

64,000

*London has the world's highest
concentration of financial and
professional service firms*



Technology demand

“The UK has emerged as the dominant force of technology-driven innovation. Together with the right regulation, policies and business environment, it has enabled Worldpay to grow from a UK start-up into a global market leader in FinTech worth over \$35bn. FinTech has never been this exciting and by continuing to partner with the government, it will lead the way in creating global opportunities for UK consumers and businesses.”

Ron Kalifa, OBE - Executive Director & Board Member at Worldpay

The UK as a Tech Centre of Excellence

“TRAction opened its first international office in London as there is strong demand for technology from financial firms to assist them with meeting regulatory requirements. Following our successful launch in Australia, we found that many of our clients had head offices or subsidiaries in the UK and Europe which we could leverage our connections to build up a client base.”

Quinn Perrott – Owner at TRAction

Over the last year, the performance of the UK digital tech sector has been world-leading, with British firms attracting more capital than any other European country. Our great strength in technology and innovation, built on the UK's excellence in R&D and creative thinking, is demonstrated by the breadth of tech activity right across the country, and the powerful networks being forged by the next generation of entrepreneurs.

The tech sector has experienced rapid growth over recent years, both across the UK and beyond. At each stage of growth, ecosystems experience shared challenges and find shared strengths. But each ecosystem has qualities unique to its location and culture.

The digital tech industry is powering the growth of local economies across the UK. However, it is not the sole preserve of larger metropolitan cities. Areas such as Guildford, Aldershot, Slough and Heathrow have significantly higher digital tech density and the highest levels of employment and tech turnover, suggesting that the UK has emerging digital suburbs. The value of domestic networks must not be underestimated. Physical proximity often aids collaboration, as evidenced by the number of tech clusters around the UK.

Global connections are key to domestic success

Digital tech companies in London are the most connected in Europe, second only to Silicon Valley for international connections. 25% of entrepreneurs across the world report having a significant relationship with two or more entrepreneurs in London, compared to 33% for Silicon Valley. These connections extend the UK's market reach and drive innovation in a process that is inherently collaborative.

The value of domestic networks must not be underestimated. Physical proximity often aids collaboration, as evidenced by the number of tech clusters around the UK.

Connectedness – whether local or global – drives innovation, and also extends the market reach of all players in an ecosystem. Since the success of firms in the knowledge-based economy is increasingly dependent on their ability to innovate, the importance of these global networks to the performance of the UK tech sector cannot be overstated.

The UK is a global leader in digital tech investment

The UK was in the top three countries for total capital invested in digital tech companies from September 2016 to August 2017, behind only the US and China. Only the US has a higher number of deals, suggesting that the UK does more small deals than China. This may indicate one of three things:

1. The vibrancy of the nation's startup and scaleup landscape;
2. Appetite for risk on behalf of tech investors;
3. Smaller scale, speculative investments in emerging tech, like AI.

Total investment and number of deals in digital tech companies have risen significantly since 2012. From £984 million in 2012, spread over 870 deals to £3.3 billion in 2016 over 2645 deals.

Ambitious tech companies increasingly seek out smart capital. This investment comes hand in hand with support from people who have experienced the challenges of accelerated growth and understand how to help a company develop from initial proof of concept to mass-market growth. International investment acts as a catalyst for global connections – bringing together companies and investors from across the world. This stimulates worldwide network building, which in turn contributes to the emergence of ground-breaking global companies.

Tech transformation in financial services

Financial services is being disrupted in a number of ways by technology. This section explores the impacts of tech talent, and emerging tech adoption.

Tech skills are being used across a diverse range of sectors aside from technology, including financial services, professional services and architecture and engineering. Using LinkedIn data from the UK's 23 million members showed that 2.2 million people claimed to have tech skills in their profile. Tech Nations' research found that tech skills are highly transferable - 36% of members now working in tech moved from non-tech jobs. 7% moved from professional services, 5% from financial services and insurance and 3% from media and entertainment.

For a long time London has been the European capital of finance. In the East of the city, hundreds of financial institutions dominate the skyline and the economy. However, FinTech is not the exclusive preserve of the capital.

The next largest regions for FinTech are the South East and East of England, which surround the capital. When broken down, this geographic bias is unsurprising. London has always been home to the UK's and Europe's most dominant financial services. It is also the centre of governance and financial regulation nationally. In an industry so dependent on legal rules, being close to regulators is invaluable.

Equally, almost all of the UK's premier FinTech accelerators are based in the East End. It is therefore unsurprising, that 85% of the accelerators attended by UK FinTech firms are in London. These pull factors add up, and go some way to explain London's dominance in the field.

Yet some firms are blossoming outside the capital. Durham-based Atom Bank is revolutionising commercial lending. Its customer-centric approach to banking makes getting a personal mortgage or loan easier for consumers. Even more geographically surprising is Penarth-based Wealthify, an investment platform for everyone. Last year the company expanded from the UK having raised £2.14 million in investment. Initiatives like FinTech North have also sprung up to showcase the best FinTech companies the Northern Powerhouse has to offer.

Tech Nation's FinTech programme - supporting UK growth

Tech Nation's sector-specific FinTech programme is aimed at company founders. In 2018, through a 24 hour induction, series of in-depth learning sessions, networking events and a three-day international showcase trip, founders became part of the very first Tech Nation FinTech cohort.

Last year was an exceptionally strong year for investment in the UK FinTech sector as it attracted a record £2 billion in VC funding, including many weighty deals, indicating a maturing ecosystem. But nearly half of the UK's high-growth FinTech firms are still at seed stage, and we need to feed the pipeline. This is why Tech Nation has decided to target this programme at 'bridge-stage' startups.

Gerard Grech - CEO at Tech Nation

Regional Analysis - FinTech across the UK

The UK is the undisputed FinTech capital of the world. This position has been built on 3 key factors: the strength of the UK in financial services, the nature of UK consumers and the UK regulatory environment.

FinTech businesses in the UK benefit from its skills in financial services, its network of supporting service businesses, and its draw as a place for international investment and capital raising. These factors have turned the UK into an incredibly attractive place for innovative businesses like Zopa to grow.

UK consumers are also some of the most digitally savvy in the world, sitting behind only the US in terms of their uptake of digital commerce. UK customers, in general, are very open to trying new and innovative financial services products and services that take advantage of new consumer technologies.

The UK benefits from a unique combination of one of the most advanced and robust regulatory regimes in the world, but one that is also very supportive of innovation in financial services, fostering competition in the sector and providing consumers with more choice. Zopa has benefited from this approach - through both the FCA's bespoke peer-to-peer lending regulations, and the PRA's new bank startup unit. The FCA's regulatory sandbox - the concept of which I worked closely with the regulator on in the Blackett Review on FinTech, commissioned by George Osborne - has become a blueprint for fostering innovation around the world."

Giles Andrews OBE - Co-Founder & Director at Zopa



England:

FinTech clusters developing across England have created real value for people, firms and local communities. Local Enterprise Partnerships (LEPs) and partnerships between leading firms, local government and higher education institutions are driving growth across the Southeast and beyond.

In the East, the Financial Industry Group (FIG) in Norwich is one such partnership tasked with developing a supportive ecosystem recognised internationally as a centre of excellence of FinTech. The support and proximity to leading global universities and established tech centres like Cambridge and Oxford will undoubtedly drive further growth in this already well-established region.

Further afield, the Midlands is one of the largest UK regions for business, professional and financial services outside of London and for tech companies servicing their requirements. The strength in Birmingham's Business, professional and financial services sector can be seen on its skyline. The FinTech cluster is seeing significant growth, with a 20% increase in the number of companies - driven by cyber security firms in particular - since 2010. Birmingham is emerging as a global BPFs hub, with firms such as HSBC, KPMG, PwC and Deutsche Bank expanding their presence locally. Other major cities where professional and financial services / FinTech are prominent include Nottingham, Leicester, Coventry and Stoke. To the West, the Bristol area is also developing fast and FinTech West has recently been formed to help build the community in this region, which has close proximity to the South Wales corridor.

We need to recognise that the strength of the industry in the capital and in other areas across the South such as Cambridge, has been vital to establishing the UK's leadership position in FinTech and the strength of the UK FinTech brand internationally. However, it is also right that we ensure that all parts of the country benefit from the growth of the FinTech sector, both in terms of the economic growth derived from businesses building FinTech products and services, and the benefits that FinTech delivers to financial services customers through better products and services.

Myself and my fellow envoys are focused on how to make this a reality. For me that's about levelling the playing field and ensuring that a FinTech's ability to succeed is dictated by the strength of its business proposition and not by geography.

David Duffy - Regional FinTech Envoy for England & CEO at CYBG

Northern Powerhouse:

"It's great up North. Atom chose Durham as its home and headquarters. With excellent transport links, a growing digital economy, talented and ambitious people and proximity to prestigious local universities, it's been a great place to build our business."

Mark Mullen – CEO at Atom Bank

According to World Bank data, the North of England (Northern Powerhouse) would be the 9th biggest country in Europe by financial services Gross Value Added (GVA), making it larger than 30 other countries. The region employs 11 times as many people in financial services as Frankfurt, and twice as many as Paris. Although there are no official statistics, the Northern Powerhouse is also likely to be the largest FinTech community in the UK outside London.

Leeds and Manchester are widely acknowledged as being the main FinTech hubs in the region, although Liverpool and Newcastle have established financial services and digital scenes and there is also an increasing amount of activity in other locations. The FinTech community in the north is mainly made up of established businesses seeking to embrace FinTech, rather than startups looking to drive disruptive change. The evolving FinTech sector is receiving an increasing amount of support from the major universities across the north, including the launch of FinTech courses, the creation of physical innovation hubs, and a number of initiatives to encourage academics and businesses to work together on innovation and FinTech related challenges.

Manchester has strengths in banking, insurance, payments, platforms and data analytics, with major brands having a presence in the region including Coop Bank, Barclays, BNY Mellon, HSBC, and RBS. Leeds has a large diverse base of financial services and technology organisations and is host to 30 national and international banks, including the likes of First Direct, CYBG, and HSBC, home to 3 of the top 5 building societies and is the only UK city outside of London to be home to offices of the three main credit referencing agencies - Experian, Equifax and TransUnion. Liverpool is the largest wealth management centre outside London, and home to major international financial brands, including Santander, Barclays, Investec and Pershing BNY Mellon. Newcastle is home to a number of major brands including Sage, Virgin Money (now CYBG), and Tesco Bank, and has a thriving digital scene.

The FinTech landscape in the north is forming not just in individual cities, but across the region, with events-based community FinTech North playing a central role. Founded in Leeds in 2016, it has now expanded into a series of conferences and events across locations including Leeds, Manchester, Liverpool, Newcastle, Harrogate, and Sheffield. FinTech North has hosted over 35 events attracting over 4000 delegate registrations from over 600 different companies, with speakers drawn from 21 countries.

From an inward investment point of view the regions benefit from a coherent message, mapping their specialisms with international FinTechs to help create a compelling message. When multiple cities combine their strengths, as we are starting to see in the North of England, this can be extremely powerful.

Chris Sier - FinTech Envoy for Northern Powerhouse & Chairman FinTech North

Julian Wells - Director at Whitecap Consulting & FinTech North



Wales:

“The decision to establish our HQ in Wales was based on a variety of factors: strong pipeline of talent from local universities, emerging innovation clusters, generous Welsh government incentives and new SME accelerators.”

Chris Ganje - CEO at Amplify

There is a nascent FinTech ecosystem in Wales, primarily centred around the South Wales corridor of Cardiff, Swansea & Newport. There are a multitude of tech hubs, around 40 FinTech firms, a dozen corporate financial services firms headquartered in Wales and perhaps 20 other significant financial services and FinTech firms who have opened a key function in Wales.

Wales already has a plurality of successful financial services and FinTech companies particularly in the areas of insurance, price comparison, payments and lending with some successes in the areas of banking, investment management and RegTech.

Wales has good culture, talent and skills, low operating costs, great work life balance, low property and operating costs, a burgeoning academic sector and easy access to London. Wales is a proud nation and has a strong sense of community where even the corporate financial services firms are keen to participate to help the FinTech startups. There is good networking and a programme of associated networking events and groups. Funding is readily available although firms tend to have to travel to find it rather than having investors knocking on their door, as happens in London.

In order to further enhance the ecosystem, the HM Treasury appointed FinTech Envoy for Wales is working closely with Welsh government to establish a new not-for-profit organisation called FinTech Wales. FinTech Wales will be run by a broad board of experienced FinTech and financial services leaders together with public sectors stakeholders and leaders from other firms that serve the needs of the industry. The board aims to establish a clear vision for FinTech Wales during the first half of 2019 and establish a programme of activities to enhance the Welsh FinTech Ecosystem which enables Wales to be identified as a go-to location for FinTech and enable anyone wanting to start a FinTech company to have the best possible chance of success.

Richard Theo - FinTech Envoy for Wales & Co-Founder & CEO of Wealthify

Northern Ireland:

“We looked at many potential locations and Belfast was the outstanding choice. The combination of a highly educated workforce, attractive business environment and great infrastructure, underpinned by the support of local government and Invest Northern Ireland, offers a compelling proposition for a global financial services group such as ours.”

Luke Barnett - Group CIO at Tullett Prebon

Northern Ireland is a leading international centre for financial technology and Belfast is the world's number one destination for FinTech development projects. Major international banks, insurers and FinTech companies in the region include Citi, Lloyds, Allstate, Liberty Mutual, Visa, Cayan and Chicago Mercantile Exchange.

International companies benefit from the strength of technology and innovation talent in the region, but they have similarly tapped into the wealth of other skills to deliver a broad range of services to clients including fund administration, operations, fraud prevention, risk management, compliance and legal services.

Northern Ireland has a thriving start up and SME FinTech community thanks to a highly developed entrepreneurial ecosystem, vibrant networking scene and the active promotion of sector collaboration. FinTech incubators established in the region by Danske and Barclays are nurturing entrepreneurs in payments, InsurTech and RegTech.

Northern Ireland has a high concentration of product development activity in which NI tech companies and teams 'own' product management, design, development, QA and DevOps from end to end. Consequently it has become a major international hub for trading technology, data analytics, cyber security, and regulatory solutions.

Alastair Hamilton - CEO at Invest Northern Ireland

Kerry Quinn - Client Executive for Financial Professional Services at Invest Northern Ireland

Scotland:

“When you cluster together people working at the cutting edge of data science with leaders in financial services, it creates a unique environment of innovation, collaboration and ideas sharing. That’s one of the big draws for us in Scotland, where you have some of the world’s best academic institutions and innovation hubs for globally leading financial institutions sharing space together.”

Paul Christensen – CEO & Co-Founder at Previser

Scotland is a global FinTech centre building on its reputation as an international financial location with Edinburgh being the second financial centre in the UK after London. Today, talented people, innovative entrepreneurs, an established financial services sector, a supportive business environment, world leading universities and a vibrant tech scene are rapidly growing Scotland as one of the top FinTech destinations in the world as well as being voted one of the top places to live in.

Scotland is now home to over 100 FinTech companies and the country has been voted the best European place to start a tech business. Scottish FinTech firms are tackling societal and economical challenges with innovative solutions and technologies. Growth in the Scottish FinTech sector is very strong and the number of innovative FinTech SMEs based in Scotland has grown by three times in twelve months from 2018.

This growth has been driven by new startups, existing international FinTech firms setting up in Scotland to expand and early stage technology firms expanding their proposition into financial services. This is supported by many of the world’s most respected financial institutions having functions in Scotland, and the growth in Scottish financial services having recently outstripped London.

There are significant opportunities for FinTech firms to grow through collaboration in Scotland with the financial sector as demonstrated by FNZ with Standard Aberdeen Life and FreeAgent with RBS.

In addition, entrepreneurs and companies relocating to Scotland can benefit from an unparalleled level of support from dedicated public sector agencies such as Scottish Development International (SDI). Scotland’s universities were the first to offer specific degree courses in FinTech.

To help Scotland further build on its FinTech credentials, FinTech Scotland was established in 2018 by members of Scottish Financial Enterprise (SFE), University of Edinburgh and Scottish government. FinTech Scotland acts as a strategic enabler ensuring the sector achieves critical mass through innovation, collaboration and inclusion as part of the country’s broader digital and data economy objectives.

FinTech Scotland works closely with SFE, the respected body representing all financial institutions in Scotland as well as the international FinTech body FDATA in establishing a global open finance centre of excellence.

David Ferguson - FinTech Envoy for Scotland & CEO at Nucleus

Louise Smith - FinTech Envoy for Scotland & Head of Intelligent Automation at RBS

Stephen Ingledew - CEO at FinTech Scotland



Capital & Investment

“The UK has always been a nation of inventors, of imagineers and of entrepreneurs. The UK’s exceptional R&D incentive schemes ensure that firms that invest in change are rewarded to continue investing in their future. Encouraging further investment into financial services innovation by the UK’s 89,000 finance and insurance firms will be instrumental in helping the UK remain one of the world’s most innovative economies. Today we are the world’s FinTech capital, and continuing to utilise these initiatives and working with our government will be a critical component to ensuring we maintain this position.”

Adam Kene - Founder & CEO at Kene Partners

The UK's Investment Environment

“At Oval Money we believe in creating a product that is European at heart and thus even though we are Italian founders, we chose the UK to be the headquarters. The UK and especially London is still the largest hub for startups with real incentives to be here like tax benefits for startups, equity investors through crowdfunding, R&D tax reliefs and a great ecosystem of very diverse talent from all over the World”

Benedetta Arese Lucini – Co-Founder & CEO at Oval Money

The UK is the home of European enterprise and investment. We have the most mature and highly-developed funding eco-system in Europe, connecting entrepreneurs and investors along an innovation chain which is supported by strong government backing, world renowned scientific and academic institutions, and a rich support infrastructure. From business angels and crowdfunding, to venture capital and the public markets, the UK is the best and most logical place in Europe to start, run and grow a business.

Similarly, if you are an investor, there is no better place in Europe to find exciting, cutting-edge companies that are not only creating great things, but which have a commercial potential as well.

Consider the facts: we have a highly-educated workforce with 4 out of the top 10 universities in the world. In 2018, more than 660,000 new business were created. Foreign Direct Investment reached £1,336.5 billion in 2017 in the UK according to the Office for National Statistics, making us the destination of choice for European inward investment projects, which reached 1,205 projects that same year. Of the £33 billion raised by UK private equity and venture capital funds in 2017, over 80% of that came from outside the country (in fact, the UK is the second biggest global hub for private equity and venture capital after the US).

Key to all of this is our long and proud track record of enterprise, entrepreneurialism and innovation. And nowhere is this more obvious than in the tech sector. Much of this success is facilitated by a raft of government initiatives and funding initiatives. Tax-advantaged venture capital schemes such as the Seed Enterprise Investment Schemes (SEIS), Enterprise Investment Schemes (EIS) and Venture Capital Trusts (VCTs) have all raised significant sums from retail investors and have played an important role in providing a continuum of early stage funding for companies.

They provide important development funding to build the generation of growth companies that are moving into the next phase of larger scale up capital.

The government has also announced measures to unlock over £20 billion of investment of 10 years through the British Business Bank (BBB); a government-owned business development bank supporting economic growth by making finance markets work better for smaller businesses. In June 2018 the BBB announced the launch of British Patient Capital (BPC), a £2.5 billion investment vehicle to help innovative UK startups become world-class leaders through long-term investment by investing in venture and growth capital funds. By investing alongside with the private sector, British Patient Capital will support £7.5bn of investment for British businesses.

Alongside this, the BBB started a £500 million ‘Managed Funds Programme’ designed to increase access to longer-term venture and growth capital for ambitious and innovative, high potential companies in the UK. As part of the government’s response to recommendations set out in the Patient Capital Review, the new programme will invest commercially in large-scale fund-of-funds, run by experienced managers, to boost the amount of patient capital available to the UK’s high-growth businesses.

Startups need more than capital to support their growth, of course, and one of the most effective ways of providing this is through accelerators and incubators, programmes designed for young businesses and offering them a range of services such as legal advice, finance investments access to professional networks, mentoring and sometimes even office space or funding. The latest estimates put the number of accelerators operating in the UK at 186 and the number of incubators at 205. These programmes are hugely beneficial. According to new research, the average accelerated company raises 44% more funding and achieves a 75% higher valuation than those that do not.

Their success and popularity are a clear indicator of this country’s entrepreneurial appetite. We are producing outstanding companies across a wide range of sectors, some of which, like FinTech, barely existed a decade ago. We have a proud history of innovation, and the infrastructure and expertise to flourish in the years to come. No matter where you go, you will find people and companies doing extraordinary things, pushing the boundaries of what is possible. It is these companies which illustrate just how important a combination of ideas, business expertise and investment is to fostering enterprise. Whether it is our world-leading academic institutions, our ability to create and attract talent from across the globe, our huge funding eco-system or, perhaps more fundamentally, our entrepreneurial culture, the UK truly is the innovation nation.

Tim Hames – Director General at British Private Equity & Venture Capital Association (BVCA)

Tom Allchorne – Director at British Private Equity & Venture Capital Association (BVCA)

Key Government Funding Initiatives

<p>Seed Enterprise Investment Scheme (SEIS)</p>	<p>Your company (or group of companies if you're a parent company) may qualify if it is less than 2 years old, and at the time of investment has:</p> <ul style="list-style-type: none"> • no more than £200,000 in gross assets • fewer than 25 employees • not previously carried out a different trade <p>You will not qualify if you've already had investment through EIS or a VCT.</p>
<p>Enterprise Investment Scheme (EIS)</p>	<p>Your company (or group of companies if you're a parent company) may qualify if at the time of investment it has:</p> <ul style="list-style-type: none"> • no more than £15 million in gross assets • fewer than 250 employees • been more than 7 years since it's first commercial sale <p>There may be higher limits if your company carries out research, development or innovation and meets certain conditions.</p>
<p>Social Investment Tax Relief (SITR)</p>	<p>Your social enterprise must be either a:</p> <ul style="list-style-type: none"> • registered charity • community interest company • community benefit society <p>Your social enterprise may qualify if you have:</p> <ul style="list-style-type: none"> • no more than £15 million in gross assets • fewer than 250 employees
<p>Venture Capital Trust (VCT)</p>	<p>A VCT is a company that has been approved by HMRC and invests in, or lends money to, unlisted companies.</p> <p>A VCT may invest in your company if it has:</p> <ul style="list-style-type: none"> • no more than £15 million in gross assets • fewer than 250 employees • not been more than 7 years since its first commercial sale <p>There may be higher limits if your company carries out research, development or innovation and meets certain conditions.</p>

FinTech Investment in the UK

The UK has established itself as a leading global FinTech hub following a banner year for investment activity across the entire FinTech lifecycle from seed capital through to billion dollar mergers and acquisitions (“M&A”). Investment activity, including Venture Capital (“VC”), Private Equity (“PE”) and Corporate VC (“CVC”) investment as well as M&A soared to US\$ 20.7bn (2017 US\$5.6bn): more than half of the US\$37.5bn recorded across Europe and representing over 20% of the global activity of \$111bn.

UK FinTech Investment Activity



Sources: Innovate Finance UK FinTech VC Investment Sector Analysis 12 February 2019 & KPMG Pulse of FinTech 2018 H2, 13 February 2019, Data provided by Pitchbook

FinTech funding remained strong with US\$3.3bn of VC, PE and CVC investments in 2018, over 68% of the US\$4.8bn recorded across Europe. Growth of these investor classes has increased on average of 55% per annum since 2014, but 2018 saw the UK’s share of VC, CVC and PE funding drop from 14% of global investment to 8.3%, mostly due to Ant Financial’s US\$14bn funding round in Q2 of 2018 vastly increasing the overall global investment. M&A activity has grown since 2014, showing the increasing maturity in the sector as the sector’s pioneers begin to exit or consolidate, but it is still driven by relatively few significant transactions.

There have been a number of headline investments and deals during 2018 across the full spread of VC, PE, CVC and M&A transactions. Revolut’s US\$250m Series C funding was in the global top 10 largest VC funding rounds in 2018; and of the ten largest European FinTech M&A deals in 2018, six of them were in the UK. 2018 also saw the first IPO for a UK FinTech: with Funding Circle obtaining a £1.5bn valuation and raising £300m at their IPO in September 2018, showing the maturing of this sector in the UK.

VC and CVC UK FinTech Investment



Source: Pitchbook Data 4 January 2019, KPMG LLP Analysis

Specifically, CVC investors are accelerating their investment in this space, typified by the US\$20m investment in Bud from HSBC, Goldman Sachs and ANZ Bank, among others. This investor class is now the second most active group investing into UK FinTech providing around 40% of total VC investment, which is a fourfold increase compared to 2015. This is supported by a healthy 70% increase in the average deal size in 2017 and 2018 compared to the earlier part of decade, demonstrating a focus on more mature investments by this increasingly important class of investor. CVC investors also tend to be international: with over 65% of these being from overseas, predominately from the United States of America.

VC and CVC Average Value per Deal



Source: Pitchbook Data at 4 January 2019, Analysis by KPMG LLP in the UK

Sector coverage

A defining feature of the UK FinTech market is the depth and breadth of sectors that it covers. Investment into challenger banks led the way with US\$461m of VC investment in 2018: mostly Revolut’s Series C funding and Monzo’s US\$110m Series E; but there were also high levels of VC investment into several FinTech sub-sectors, which showed a sharp increase in activity from 2017. These included personal finance and wealth management (US\$333.6m), alternative lending and finance (US\$306.6m), blockchain and digital currencies (US\$174.7m), Insurtech (US\$103.1m), and payments (US\$102.5m).

Building regional hubs

While London is frequently associated with FinTech startups and represents 84% of VC, CVC and PE investment volume, there is also considerable activity outside the Capital. This has received a further boost from the government's £21m Tech Nation programme, which aims to create a national network of regional tech hubs in areas such as Belfast, Birmingham, Cardiff and Edinburgh. Many of the UK's recent FinTech success stories are based in the regions, where some mature FinTechs are now also the subject of M&A transactions. In 2018, three of Europe's largest deals involved firms based outside of London, including the buyouts of Woking-based Fidessa Group for US\$2.1bn and Datchet-based IRIS Software group for US\$1.8bn, as well as the US\$910m private equity investment in Peterborough-based BGL Group.

International expansion

Maintaining the UK's status as a global FinTech hub as well as promoting expansion around the world is also an area of focus that has led to successful outcomes. To that end, in 2018 the UK released its first FinTech Sector Strategy with the aim of helping the UK retain its leadership in the FinTech space in Europe. Part of this strategy includes appointing six FinTech regional envoys to ensure the benefits of FinTech are felt across the UK.

Alongside this, a major aspect of the government's support for the FinTech sector in recent years has been the establishment of 'FinTech bridges' with jurisdictions around the world to help reduce regulatory barriers and support international expansion in a post-Brexit world. So far, these bridges have been established in Australia, China, Hong Kong, Singapore and South Korea.

Anton Ruddenklau - Global Co-Leader of FinTech at KPMG

Joe Cassidy - Head of Market Infrastructure at KPMG in the UK

Motive Partners' focus on technology-enabled companies that power financial services meant the UK was an obvious destination for us to set up our European Headquarters, building our 15,000 square foot Innovation & Investment Centre in Canary Wharf. From Thomas Savery's steam engine in 1698 to Sir Tim Berners-Lee's World Wide Web in 1989, for centuries the UK has been a place of imagination and creativity, producing some of the most life-changing, pioneering solutions in history. The UK is continuing to affirm its place as an innovation capital through the climactic evolution of financial services as it intersects with technology - there has never been a more exciting time to be investing into the UK's FinTech ecosystem.

Increasing levels of investment into the UK's FinTech industry show that the industry is going from strength to strength. The UK remains Europe's best destination for FinTech investment and the increasing levels of later stage growth capital being deployed suggest the industry is maturing at an unprecedented rate globally. The success of the UK's FinTech sector proves that there is no better place to innovate and invest in the future of financial services. The UK's diverse FinTech talent, connectivity and capability combined with the government's commitment to ensuring the continued growth of the industry sets it apart from other financial services hubs across the globe.

Furthermore, we are now seeing increasing levels of collaboration between incumbents and new entrants within the financial technology space. Firms that provide the right combination of capital and value-creation capabilities to enhance this relationship stand to gain, and will ultimately support the next generation of technology-enabled financial services in the UK.

Alastair Lukies CBE - Prime Minister's Business Council & Founding Partner at Motive Partners

Regulation

“We looked at a number of jurisdictions when we decided to expand in Europe. Ultimately, we selected the UK to be our European regional headquarters. A clear, structured and applicant-friendly UK regulatory environment was one of the positive factors.”

Ricardo Capelveere - Founder & CEO at Currenxie

A view from the Regulator

“We are humbled to say that without the FCA regulatory sandbox we wouldn’t have been successful. We wouldn’t have had an opportunity to prove our business model in a way that balanced support for new innovation and consumer protection.”

Edward Maslaveckas - Co-Founder & CEO at Bud

Why we care about Innovation

Innovation is more than just a buzz word at the FCA, it’s something that actively helps us achieve our objectives, particularly in promoting effective competition in the interest of consumers. It’s why we have a dedicated Innovation Division at the FCA.

Innovate was launched by the FCA in October 2014, shortly after receiving our competition mandate. We launched our RegTech programme in 2015, after issuing a Call For Input to find out more about how we could support the adoption and development of RegTech.

At the heart of Innovate is the understanding that regulation designed to fit different products at a different point in time can hinder the progress of new technologies created for the here and now. In short, a legacy approach can produce legacy outcomes.

Therefore, we decided that we had to create the conditions that would allow competition to work as well as it could through innovation.

Our aim through RegTech was to support the development of innovative strategies and data-led approaches to provide opportunities for us to regulate and supervise more efficiently and effectively and overcome regulatory challenges in financial services

The first steps

When we first launched, we had one service offering - Direct Support - a dedicated contact point at the FCA to help firms navigate the tricky landscape of regulation.

In 2016, we focused on the UK financial advice market and co-wrote a paper with the UK’s HM Treasury on the provision of financial advice in the UK (the Financial Advice Market Review). We found that steps needed to be taken to make the provision of advice and guidance to the mass market more cost-effective, such as through ‘robo’ advice.

To help address the findings we created the Advice Unit where we provide tailored feedback for firms involved in advice and guidance services.

Evolving our approach

The Sandbox supports firms that want to test new or innovative ideas with real customers in a controlled environment. Balancing all our statutory objectives (consumer protection, protecting and enhancing market integrity, and promoting effective competition in the interest of consumers) is very important for us, and this ‘controlled environment’ means that firms still need to follow the rules before they can test on consumers. It is open to authorised firms, firms that need authorised, and firms that provide technology services to regulated firms.

We are looking for products that serve a genuine consumer need, that offer a solution to an underserved corner of the market or a new approach to a thorny issue. It is not a badge of honour, there are no favourites, and there are no free passes. We do not favour a particular technology, or company, but will support all those that are truly innovative and provide a genuine consumer benefit.

Demand for the sandbox continues to be high, and our fourth cohort was our largest to date with 69 applications, of which 29 went forward to testing.

We’ve also focused on specific areas that could benefit from innovation and we launched our first sector specific support function, the Green FinTech Challenge.

Through our RegTech programme we have targeted specific areas where we have seen opportunity for innovation and technology to deliver better outcomes for firms, markets, consumers and regulators. Since 2015, we have delivered TechSprints focussing on regulatory reporting, access and mental health (vulnerable consumers programme) and AML/financial crime.

We have also moved our approach from purely TechSprint-led to working alongside the BoE and regulated firms to develop a shared vision to make the current system of regulatory reporting more accurate, efficient and consistent. The pilot explores how to make reporting rules less reliant on human interpretation and implementation and improve the quality of regulatory data.

Feeding back into the organisation

The RegTech team have developed a series of engagement tools to bring external views into the organisation and developing industry-wide know-how around specific innovations and developments. This includes demo days, where we invite anyone with a RegTech solution to demo their product to a panel of interested parties from across the FCA. We also host TechKnows, bringing experts in to bring to life the technology that exists and how it could change the regulatory landscape in the future.

The sandbox has also proven to be a very useful tool for identifying gaps in policy, or highlighting unnecessary barriers to entry and innovation. This includes areas of financial services where there is a lack of regulatory clarity which may hinder the adoption and implementation of innovative technologies.

One such example is Distributed Ledger Technology (DLT) and cryptoassets. This fed into FCA policymaking through which we published our position on DLT, in this case supporting its use in financial services. We took a similar approach to the cloud in 2016, when we became the first G7 nation to produce guidance on outsourcing to the cloud.

Our DLT work also helped with our approach to cryptoassets which included participating in the Cryptoassets Taskforce in 2018. This was part of the wider UK government's FinTech Sector Strategy and brought together HM Treasury, the FCA and the Bank of England.

In early 2019 we published 'Guidance on Cryptoassets', a consultation document that laid out the regulatory treatment of different types of cryptoassets, as well as conducting research into consumer behaviour around cryptoassets.

However, it's just a step in our wider cryptoasset work as the taskforce has also identified 3 major harms: to consumers, to market integrity and the risk of financial crime. During 2019 the Taskforce members will each take steps to address these harms and to encourage future beneficial innovation.

Expanding our horizons

Very early on, we realised the importance of cross border collaboration to innovation - one of the reasons why the FCA's Innovate initially proposed the Global Financial Innovation Network (GFIN).

The GFIN seeks to provide a more efficient way for innovative firms to interact with regulators, helping them navigate between countries as they look to scale. The GFIN currently has 29 members, and this list continues to grow. It will also create a new global framework for co-operation between financial services regulators on innovation related topics, sharing different experiences and approaches, including the potential for firms to test in multiple jurisdictions concurrently.

Our international collaboration doesn't just occur within the GFIN. To deal with new developments that are usually cross-border in nature, the Innovate team works closely with other regulators and standard setting bodies. This includes the FCA chairing the International Organisation of Securities Commissions FinTech Network steering committee and contributing to a range of workstreams, including on big data analytics and artificial intelligence. This reflects the importance we attach to this work globally.

Our AML TechSprint in May 2018 was the first Global TechSprint and convened firms and regulators from across the globe. Our follow-up TechSprint in July 2019, will focus specifically on Privacy Technology and again will bring a global network of regulators and firms together to work on a solution to an issue that affects every human on the planet.

Innovation begins at home

A large part of our focus is on supporting the UK FinTech ecosystem. Our own Innovate events in London and Edinburgh in January this year attracted over 350 attendees from approximately 20 countries.

We also work closely with other government departments such as the Information Commissioners Office, the Centre for Data Ethics and Innovation, and the Competition and Markets Authority to discuss areas of common interest such as the General Data Protection Regulation (GDPR), or to discuss the challenges and opportunities that data rich business platforms within the financial services industry can bring.

The academic sector is also significant in the UK and we engage and support in many ways relating to education and knowledge, including supporting world class research projects with the Alan Turing Institute.

We also proposed the idea of a UK cross-sector regulator's sandbox in October 2018. We conducted a 6-month feasibility study into how a new cross-sector sandbox, involving multiple UK regulators, could be established. This is truly pioneering and illustrates how committed we are to breaking down regulatory barriers to financial innovation in the UK.

RegTech

Our RegTech work initially focussed on our role as catalyst for development and adoption on new technologies to support compliance. We use our convening authority in the form of TechSprints to bring collaborative groups together.

Supported by our engagement with the FinTech and RegTech market we've identified opportunities to utilise such technologies ourselves to improve the efficiency and effectiveness with which we perform our regulatory functions (RegTech for Regulators). In 2018, the FCA hosted our largest TechSprint to date to investigate how new technologies and greater international collaboration could help to improve the prevention and detection of financial crime. Over three days we facilitated 260 participants from 105 firms spanning 16 countries - together with regulators and law enforcement agencies from the United States, Europe, Middle East and Asia Pacific - who worked in teams to help develop solutions to prevent and detect financial crime. An innovative approach to a global problem of epic proportions. In July 2019, we will be holding a follow-up TechSprint in London to explore the potential for new technologies to enhance information sharing across jurisdictions. The week-long TechSprint will investigate how Privacy Enhancing Technologies (PETs) could significantly alter the detection and prevention rates.

Earlier this year we started important work with the Money and Mental Health Policy Institute to identify how we can leverage developments in Artificial Intelligence and Data Analytics to support the most vulnerable consumers in society. We see well managed technology as a force for good and hope that we can act as a catalyst to encourage firms to adopt new technologies to support vulnerable consumers.

The future

With the launch of Innovate in 2014 we set out to encourage innovation and healthy competition in the interests of consumers and we are delighted to have helped shape the debate and influence the outcomes we are seeing, both domestically and globally.

But we do not rest on our laurels. We will continue to improve our work and collaborate domestically, through initiatives such as the cross-sector sandbox, as well as internationally through initiatives such as the GFIN and our RegTech programmes. It is only through such collaboration and self-improvement that we can continue to support the benefits of innovation for the FCA, both now, and into the future.

By the Financial Conduct Authority

Regulation: The Business Perspective

“The UK’s Open Banking regime is the envy of the European FinTech community, with modern technical standards under the guidance of an ambitious and independent implementation body. It’s no coincidence that many world-leading FinTechs have chosen to take their first Open Banking steps here.”

Conrad Ford – Founder & CEO at Funding Options

The regulatory response in the UK to FinTech in some ways has mirrored the journey of startups and incumbents - it has been one of experimentation, adaptation and an attempt to align the new world to the old. However, the overarching regulatory commitment to foster market competition has delivered an environment that has supported the UK FinTech success story.

While UK regulators remain alert to the existing and emerging risks associated with technological innovation, they recognised early on that failing to get close to innovation which benefits consumers and competition in financial markets presents even greater risks. The FCA’s regulatory sandbox was itself a radical innovation, designed to get under the skin of industry innovation and understand the inherent risks and opportunities.

So how have firms benefited? Deloitte and Innovate Finance’s recent research shows that the FCA’s sandbox has provided tangible benefits to firms - some firms could “prove” the performance of the innovative technology in a regulated environment; others trialled an entirely new business model to provide a regulated activity and demonstrated that it could be done with the necessary safeguards; incumbents trialled FinTech partnerships to assess feasibility and viability; and some others decided to fine tune their business models after exit, choosing to give up the “regulated activity” element of their business model to becoming a pure innovative technology infrastructure player. What all of them got in common was the rigour and challenge from the regulator around risks and controls and the ability to demonstrate that technological innovation can deliver consumer and/or market benefit in an innovative and safe way. The regulatory scrutiny of business models in the sandbox and results of sandbox testing, helped a number of FinTechs to have productive conversations with investors and future partners, including incumbents.

And the FCA has benefitted too. It is instructive to see how the FCA’s experience gained from the sandbox is feeding through to policy. The FCA’s recent perimeter guidance consultation on cryptoassets draws on a

number of regulatory sandbox case studies to explain how existing regulation would be applied to cryptoassets. The sandbox experience has also led the FCA to reflect on the fact that technology-based models are global rather than national in their reach and ambitions. This led the FCA to explore a global initiative - the Global Financial Innovation Network. It is an experiment still in the making but it has the potential to remove some of the cross-border regulatory barriers that firms face. As with all complex experiments, the constraining factors are many - regulatory cooperation, lack of international regulatory harmonisation and creating a seamless testing experience. But again, the FCA has demonstrated that it is willing to experiment and has tried to facilitate the international dialogue to support innovation.

Being close to innovation has also encouraged the FCA to try new technologies in its own supervisory activities. This again is invaluable experience which will reveal the softer challenges - such as culture and scalability - that innovating firms will face. This rounded knowledge will help focus attention on some of the wider risks associated with driving and implementing technological innovation, at scale, in regulated firms.

In the UK, regulators have shown that regulation can be a tool for opening up competition and has acted as a leader in a number of FinTech policy areas, with Open Banking (OB) being a key example. Introduced in 2016, the Competition and Markets Authority (CMA) OB Standard required UK banks to design and implement industry-wide Application Programme Interfaces (API) communications standards. This enabled greater interoperability between OB solutions and consumer adoption compared to other EU Member States. Third party access to previously closed consumer banking data has forced incumbent banks to be more competitive and consumer focused. New FinTech aggregator apps have flourished focussing on providing tailored financial guidance to consumers and forcing incumbents to up their game or indeed collaborate with these new entrants. However improvements in both the design and implementation of OB APIs are still needed to ensure consistent high performance and user experience. The thorny question of liability for data breaches also remains a sticking point for many incumbent banks. These all demonstrate that embracing innovation and opening up markets will not be without challenges, and will inherently raise the profile of some existing risks and introduce new ones in the FS sector.

In their quest to support innovation the objectives of the regulators have not fundamentally changed - UK regulators remain clear that innovation and competition do not take precedence over financial stability, market integrity, and consumer and data protection. As FinTech services and products continue to grow, increasingly regulators are considering the challenges these developments present to their broader mandates.

One such challenge is mapping the old world to the new - assessing the adequacy of the regulatory perimeter

and/or refitting current regulatory frameworks to take account of developments such as crypto-assets, Artificial Intelligence (AI), or the steep increase in the use of technology third party providers. Both FS and cross-sector authorities have started taking steps to address some of these issues.

On cryptoassets for example, the FCA's regulatory perimeter guidance consultation maps cryptoassets to the existing regulatory framework and identifies challenges. The FCA have confirmed that security tokens are financial instruments and the relevant existing rules will apply. This has provided much needed clarity to both incumbents and startups. Applying these rules to cryptoassets in a technology neutral way is a journey that firms will now need to explore and refine and there will be winners, as well as those who choose to step away from the regulated space.

Technological innovation is also breaking down the traditional "industry" view of regulation. It is encouraging to see UK regulators taking steps to address the cross-sectoral reach of FinTech solutions. For example, monitoring the increasing use of customer data within the context of technologies such as AI is a priority for both FS and data protection authorities. In response the FCA and the Information Commissioner's Office (ICO) have been strengthening their efforts to cooperate effectively, make best use of their combined resources, and ensure a coherent supervisory and enforcement approach. It will be important to see the practical benefits of this stronger relationship as the ICO establishes its own regulatory sandbox and develops additional guidance on data protection risks arising from Big Data technologies. The FCA is also exploring the development of a cross-sector sandbox. Regulation may also need to engage with potential utility solutions such as KYC platforms which new technologies can enable.

The UK remains a recognised leader for its supportive regulatory approach to innovation and we expect that to continue. UK regulators can build on their early success to meet the growing challenges that will inevitably arise as the FinTech market continues to develop. However, in many respects the industry as a whole is in uncharted territory. UK regulators, similar to incumbents, cannot abandon overnight the core foundations on which business has been operating and the overarching responsibility to the market and consumers. Equally, like startups, they cannot forego the spirit of experimentation and adaptability that helps them to harness and support innovation. The continued success of UK regulators will be determined by how well they can balance the best of both worlds.

Louise Brett - Head of FinTech UK and North West Europe at Deloitte

Suchitra Nair - FinTech Lead, EMEA Centre for Regulatory Strategy at Deloitte

Talent

“We have a thriving business in Asia Pacific and we needed a base in Europe which would match our global ambitions. We chose the UK for its blend of world class talent, a friendly and progressive regulator and strong client base. The talent pool in particular is exceptional, and has meant we have been able to hire the very best individuals to help our business continue to grow.”

Jack Zang – Co-Founder & CEO at Airwallex



FinTech - Talent & Skills

The FinTech Ecosystem



Source: EY Financial Services. Ernst & Young LLP. (2016)

The UK is one of the world's leading FinTech hubs and access to talent has played a critical role in the success of the UK's FinTech sector to date. The UK's traditional strength in both financial services and technology has created a compelling commercial environment for FinTechs, and has ensured access to a large pool of skilled people.

In the past five years we have seen a host of new FinTech firms, business models and consumer propositions enter the market, including entrepreneurial start-ups, major technology firms, and branchless mobile banking services. We have also seen the seeds of the next evolution of financial services taking root, including the move towards data sharing, open Application Programming Interfaces (APIs), biometrics, and the application of artificial intelligence and robotics. In delivering this progress, a world-class FinTech skills base has been developed in the UK.

The question now, is how can the UK keep up with the demand for the skills that will support the future success of FinTechs?

As FinTech adoption increases across the world, we will see greater international competition for the best talent. Research from the World Economic Forum shows that

emerging roles - such as, data analysts, AI and machine learning specialists, designers, and people who work in innovation roles - which currently account for 15% of the financial services workforce globally, are expected to account for 29% of the workforce by 2022. We are already feeling the pressure in the UK market. The UK FinTech Census 2017, surveyed approximately 250 companies to understand the opportunities and challenges faced by the sector. Almost 60% of respondents stated that attracting suitable talent was their biggest challenge - a bigger challenge than raising equity capital (34%) or driving consumer adoption (49%).

We know from our conversations with clients that the most important skills for FinTechs are also the most difficult to hire - software engineering, systems architecture and development, and data analytics.

The good news is that we have already seen the government and industry come together to lay some important foundations. The Chancellor asked TheCityUK to convene a financial services Skills Taskforce, to focus on four core areas: digital skills, skills shortages, creating greater social, ethnic and gender diversity, and skills renewal and retention across the UK. The taskforce will be reporting its recommendations at the end of 2019.

In the meantime, we have seen a number of key strategic and tactical actions being taken to ensure that FinTechs who choose to set up their businesses here are able to attract the best candidates from within the UK and internationally.

Educational interventions

- The UK has a high density of top ranked postsecondary education institutions, with London alone home to four of the top 30 ranked universities in the world
- The UK is introducing specific FinTech courses, apprenticeships, and sponsored work placements to strengthen the FinTech talent pipeline.
- To address the talent shortage in the technology sector, the UK government has undertaken specific steps towards improving education curricula to align more closely with the needs of industry employers, promoting STEM (Science, Technology, Engineering, and Mathematics) programmes throughout the education system.
- We know from our current work with FinTechs that their business models do not allow for extensive investment in retraining and upskilling people; instead, they rely on hiring skilled talent directly into their businesses. However, many larger employers in the UK, including EY, are offering technical training to upskill their current employees as they future-proof their business in the face of digital and technological change. FinTechs will benefit from the pool of skilled talent this creates.

- We know from our discussions with FinTechs that it is hard to access school leavers and graduate hires - they do not have the resources to effectively cover the number of institutions needed to compete for the best talent. They also said it was hard for experienced hires to know where to look for FinTech roles. In response, Innovate Finance has worked with its members to launch the UK FinTech Jobs Board. Launched in April 2019, this will create one central platform for the industry to post roles and connect with potential candidates.

Incubators and extra-curricular activities

- The prominence of FinTech accelerators across major UK cities, has played a significant role in attracting and retaining progressive start-up talent.
- In addition, a number of organisations have developed FinTech related programs and events in order to attract and grow the skills of available talent within the UK FinTech ecosystem.

Government and policy interventions

The UK's success as a global FinTech hub is reflective of an encouraging policy environment. Government policy makers and regulatory bodies in the UK are working hard to create a progressive, open-minded and internationally focused regulatory scheme.

- Visas: Schemes that focus on visas for tech talent, such as the Tier 1 Exceptional Talent Visa in digital technology. These initiatives are welcomed by the industry as they provide direct opportunities for foreign technical talent to work in the UK.

Ecosystem Attributes and Benchmark Factors

Attributes	Factors	Description
Talent	Talent availability	Current availability of technical, FS and entrepreneurial talent
	Talent pipeline	Availability of future talent, both domestic and foreign
Capital	Seed capital	Access to start-up capital (£0m-£5m)
	Growth capital	Access to growth capital (£5m-£100m)
	Listed capital	Access to the public markets
Policy	Regulatory regimes	Regulator support for new entrants and innovative business models
	Government programmes	Government support for programmes to open up the sector, increase competition, attract foreign FinTechs and improve cybersecurity
	Taxation policy	Availability of tax support for investors and corporates
Demand	Consumer demand	Adoption by local market consumers (B2C)
	Corporate demand	Adoption by corporates, particularly SMEs (B2B)
	FI demand	Adoption by FIs (enterprise)

- **Taxation:** The tax system that encourages investment in early stage companies, through incentives such as the Enterprise Investment Scheme and Entrepreneur's relief.
- **Diversity:** The gender balance in FinTech in the UK is particularly low, with women making up just 29% of the employee base of the FinTechs who responded to the Census. In the UK, the Women in Finance Charter (WIFC) was launched in 2016 to accelerate the path to gender equality in financial services and the WIFC is running an active campaign to include the FinTech sector.

It's clear from the actions taken to date that, just as the UK took the lead on creating a world-class policy and regulatory ecosystem in which FinTechs would thrive, the UK intends to take the lead in making sure FinTechs can continue to attract and retain highly-skilled talent and reduce time-to-hire.

Overall, the UK continues to demonstrate great competitive strength when attracting talent. The UK market remains one of the most attractive in Europe for FinTechs, based on EY's analysis of market opportunity. This is in no small part due to the ready access to high quality financial services talent that FinTechs in the UK enjoy. Providing the UK can keep up the momentum, it is well placed to remain a globally competitive hub for financial services and technology.

Omar Ali - Managing Partner, UK financial services at EY

The Power of Diversity in FinTech

“We moved to London in March 2016, and definitely one of the main relevant aspects of being here for us is the incredible pool of diverse talent that is part of the ecosystem here. Particularly in the FinTech landscape it is quite impressive to see how relevant the diversity and the level of expertise are to the ecosystem, and how much it creates a positive circle in which more and more talent is attracted to the UK”

Délber Lage – CEO at SalaryFits

The world of financial services is changing dramatically and it is clear that a combined technology and finance industry now drives investment and innovation across finance in the UK, providing new platforms for products and bringing services closer to the end consumer.

As FinTech evolves into something more akin to mainstream financial services, it is not only driving competition, it is also stimulating greater diversity of products, and increased financial inclusion. However, as with most of our industries, FinTech's success depends as much on the people working within it, as it does on those external factors - such as regulators or policy makers - that have encouraged this growth.

However, the importance of diversity in both FinTech and financial services is no longer an act of simple awareness building or garnering high-level buy-in from boards. Of course, building awareness remains an essential ingredient to change, especially in the corporate world, where improvement and advancement seem to move at a glacial pace. But the dialogue has shifted and is now geared more towards action and ensuring the change actually happens.

An Innovate Finance/WPI Economics joint report in 2018 highlighted the growing importance of FinTech in the UK, with the sector set to top 100,000 employees by the year 2030, with 30,000 new jobs created and an estimated 3,300 UK FinTech firms.

Gender diversity statistics in FinTech are not as progressive as we would necessarily expect or want them to be. The wave of founders that has come out of banking has been predominantly male, so unsurprisingly, 83% of all FinTech executives are male. Women represent just under a third of total staff in the FinTech sector and female founders are still struggling to raise capital with unconscious (or conscious!) bias against women-led organisations.

In the UK, only 13% of senior decision makers at venture capital firms are women and 48% of firms have no women in their investment team. Innovate Finance's 2018 report on VC investment showed that of the \$1.7 billion that flowed into UK FinTech firms, only 3% went to firms with a female founder.

Yet there's a great deal of evidence that a diverse workforce makes commercial sense. Diversity has a proven impact on the bottom line and a direct return on investment. McKinsey's latest report on the topic showed that in 2017, companies in the top quartile for gender diversity on their executive teams were 21% more likely to experience above-average profitability than those in the bottom quartile. If you throw ethnic & cultural diversity into the mix, that number rises to a 35% outperformance.

In FinTech, there is a will for innovation and change that is being both demanded and driven by female and male entrepreneurs and industry leaders across the sector. Innovate Finance wants to play a role in helping to accelerate that pace of change, especially in startup FinTechs, who can potentially make a real difference right from the very outset.

There is a real need to create better ways of working and better systems to deliver a more inclusive sector. There is a need for new models to recruit and retain diverse talent, new systems to teach and inspire at a young age (especially young girls) and more collaboration to develop better programmes that deliver real change.

Much better signposting is needed in order to attract more people from more diverse backgrounds into FinTech and it needs to start at a much earlier age. It has been shown that by the age of 10, children already have a strong sense of identity of what they can and can't do. So, inspiring children from an early age, by providing them with a wide variety of role models from diverse backgrounds and skill sets, is a vital first step in creating a new model to deliver real change in terms of diversity.

Change will only happen through a concerted effort from different angles: a top-down approach through inclusive and collected leadership; developing and inspiring a pool of diverse talent via a bottom-up approach; understanding the important role data can play in driving through the change by planning, tracking and measuring diversity programmes.

There is a great opportunity, though FinTech, to drive through real change. FinTech offers remote working, flexibility and the chance to move seamlessly within companies to different roles. The culture and social purpose of FinTech is naturally attracting a more diverse workforce. Could FinTech become the poster child to create the next generation of financial services? Can financial services learn from the new world?

Clare Black - Head of Diversity at Innovate Finance

Innovation is driven by the intersection of a myriad of voices. The global diversity of voices and experiences that meet in the UK provide the perfect turf for innovation and material disruption. In fact, Neyber's innovative solution to a UK market need is a result of a cultural savings experience from our founder and CEO.

When we analyse innovation through a data lens, the opportunity is also rich. The UK is 4th on the Global Innovation Index behind only Switzerland, Netherlands and Sweden.

The UK has one of the most diverse and inclusive societies on the planet. We have the ability to attract people from all over the world. Global visibility linked with our local advantages gives the UK an almost unmatched ability to innovate that simply can't be replicated anywhere else.

There are several complementary factors that make the UK market hot for innovation. The UK has some of the best and well regarded universities in the world and centres of research excellence, with a world class science and research base.

Additionally, home to leading edge industrial sectors, a skilled and productive workforce, smart and sustainable infrastructure, high environmental standards, world-respected corporate governance, and a power house in London and our other major cities.

Monica Kalia - Co-Founder & Chief Strategy Officer at Neyber

Future Technology Trends, Innovation and Collaboration



“Being a heavily regulated industry, conservatism and fear of change can often stifle innovation, however UK financial services firms have embraced new technology much faster than other centers. In the UK, there has also been a clear trend that in-house IT expertise may not achieve the innovative goals a firm may have and adoption of vendors who create value-add solutions to help manage regulatory or work-flow efficiencies has been growing vs. other parts of the world.”

Stephen Carney – Co-Founder & CEO of Quintain Analytics

Future Technology Trends

The Essential Eight technologies and how they can be applied

Blockchain



Distributed electronic ledger that uses software algorithms to record and confirm transactions with reliability and anonymity. The record of events is shared between many parties and information once entered cannot be altered, as the downstream chain reinforces upstream transactions.



Example Use Cases

- Identity management
- Voting
- Peer to peer transactions
- Supply chain management
- Smart contracting
- Provenance / traceability
- Asset registration / ownership
- Trade finance
- Record management

Drones



Air - or water-based devices and vehicles, for example, Unmanned Aerial Vehicles (UAV) that fly or move without onboard human pilot. Drones can operate autonomously (via on-board computers) on a predefined flight plan or be controlled remotely.



Example Use Cases

- Insurance claim validation
- Precision farming
- Infrastructure inspections
- Railway safety
- Cargo delivery
- Construction site management
- Forestry management
- Facility inspection (wind turbine, oil rig, etc)

Internet of Things (IoT)



Network of objects - devices, vehicles, etc. - embedded with sensors, software, network connectivity and compute capability, that can collect and exchange data over the Internet. IoT enables devices to be connected and remotely monitored or controlled. The term IoT has come to represent any device that is now "connected" and accessible via a network connection. The Industrial IoT is a subset of IoT and refers to its use in manufacturing and industrial sectors.



Example Use Cases

- Inventory and material tracking
- Real-time asset monitoring
- Connected operational intelligence
- Customer self-service
- Usage and performance benchmarking
- Data integration and analytics
- Connected service parts management
- Remote service
- Real time market insights
- Flexible billing and pricing models

Robots



Electro-mechanical machines or virtual agents that automate, augment or assist human activities, autonomously or according to a set of instructions - often a computer program.



Example Use Cases

- Manufacturing
- Hazardous industries
- Hotels and tourism
- Service industry
- Automation of predictable tasks
- Data management

3D Printing



Additive manufacturing techniques used to create three-dimensional objects based on digital models by layering or “printing” successive layers of materials. 3D printing relies on innovative “inks” including plastic, and more recently, glass and wood.



Example Use Cases

- Healthcare and smart medical devices
- Tool and end use parts
- Prototyping
- Bridge manufacturing
- Supply chain optimization
- Customized products
- Remote location production

Virtual reality (VR)



Computer-generated simulation of a three dimensional image or a complete environment, within a defined and contained space, that viewers can interact with in realistic ways. VR is intended to be an immersive experience and typically requires equipment, most commonly a helmet/headset.

Example Use Cases

- Immersive journalism
- Virtual workplaces
- Manufacturing/product design
- Architecture & construction
- Education&training
- Big data management
- Entertainment
- Healthcare
- Merchandising

Augmented Reality (AR)



Addition of information or visuals to the physical world, via a graphics and/ or audio overlay, to improve the user experience for a task or a product. This “augmentation” of the real world is achieved via supplemental devices that render and display said information.

Example Use Cases

- Virtual showrooms
- Education
- Travel and tourism
- Gaming
- Printing and advertisers
- Retail environments
- Marketing

Artificial Intelligence (AI)



Software algorithms that are capable of performing tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making and language translation. AI is an “umbrella” concept that is made up of numerous subfields, such as machine learning, which focuses on the development of programs that can teach themselves to learn, understand,reason,plan, and act (i.e. become more intelligent)when exposed to new data in the right quantities.

Example Use Cases

- Managing personal finances
- Trading systems
- Real time fraud and risk management
- Automated virtual assistants
- Underwriting loans and insurance
- Customer support, transactions and helpdesks
- Data analysis and advanced analytics

“We are at an inflection point in FinTech. The confluence of the growing tech sector in the UK along with banks and financial institutions moving towards cloud micro-service architectures gives us a once in a generation opportunity to build a genuinely world class new industry. The UK is perfectly placed for this, having its roots in the financial sector, AI, cloud computing and in London, Europe’s largest tech hub.”

Paul Taylor – Founder & CEO at Thought Machine

Technology is evolving at an unprecedented pace and in an age of digital disruption, innovation can change an industry overnight. As a result, the majority of financial services CEOs in the UK (62%) believe that a focus on emerging technologies is the number one driver that will separate high-performing firms from the rest. It is therefore no surprise that UK financial services CEOs are keen to remain at the forefront of the technology adoption curve, more so than their global peers. Yet, many business leaders are unsure how to respond to emerging technology trends and consequently often adopt a ‘fast follower’ rather than an ‘early adopter’ approach. However, in order to remain competitive, organisations will have to make a concerted effort to explore and invest into emerging technologies.

PwC analysed the business impact and commercial viability of more than 250 of the most innovative emerging technologies, identifying the “Essential Eight” technologies that will have the biggest impact, across industries, over the next three to five years. They are a reflection of a business environment that is rapidly moving towards a smarter, more autonomous technological ecosystem that provides both the digital experience that customers expect and the operational efficiency that business leaders demand.

As the ‘Essential Eight’ technologies continue to mature over the coming years, they will increasingly be viewed as the foundational building blocks that organisations ought to explore to remain competitive. However, these technologies should not be explored in isolation, as what is shaping to be the most disruptive emerging trend, within the innovation ecosystem, is the convergence of individual technologies that will result in more powerful applications and greater overall results.

Across the financial services industry, three main themes are emerging that demonstrate how individual technologies are coming together to create the next wave of innovation:

Intelligent Automation, combining Artificial Intelligence (AI), Robotic Process Automation (RPA) and the Internet of Things (IoT)

Intelligent Automation enables human-like interactions to create a ‘virtual workforce’ of automated bots that are capable of handling tasks typically performed by humans. It can include machine based decision making without explicit programming, gathering data from unstructured sources like handwritten text or voice, or using natural language to respond to requests in a human-like way. By combining AI and the IoT with RPA, vast amounts of data from a range of sources (embedded sensors, smart devices, wearable technology etc.) can be collected to feed intelligent algorithms and automate processes. Within financial services, Intelligent Automation has the potential to yield returns beyond cost savings, including better customer and employee experience or quality improvements attributable to a reduction of errors. For example, Intelligent Automation could enable the automation of ‘Know Your Customer’ (KYC) requirements by implementing RPA for customer data capture and Machine Learning algorithms for the approval of associated workflows.

Automated Trust, combining Artificial Intelligence (AI), Blockchain and the Internet of Things (IoT)

The primary application of Automated Trust is often framed within the manufacturing industry. However, the convergence of AI, Blockchain and the IoT to ‘automate trust’ should not be underestimated within financial services. Automated Trust can, for example, bring trustworthiness to AI by providing clear audit trails. It can also help improve the trustworthiness of machine-to-machine interaction by providing a secure way to share data and coordinate decisions. With the increased adoption of Automated Intelligence within financial services, such as virtual assistants, technology to secure the trustworthiness of technology will become increasingly important. Auto insurance is a good example, where insurance payments are automatically credited to a claimant’s account through a blockchain implemented authentication process as soon as an IoT connected sensor detects a defect.

Extended Reality (XR), combining Virtual Reality (VR), Augmented Reality (AR), the Internet of Things (IoT) and Artificial Intelligence (AI)

Extended Reality is the combination of technologies to provide fully immersive, digital experiences to achieve life-like simulations. The widespread availability of smart devices, breakthroughs in wearable technology and enhanced data analytics capabilities, enable the development of a seamless hardware and software ecosystem, the precondition for Extended Reality. It is redefining how humans interact with the virtual and physical world.

The use of emerging technologies, and the benefits organisations can yield from them, strongly depends on the availability of good quality data. The cloud will, likewise, play a key role as enabler for innovation, evolving from a tool to cut costs towards a fundamental requirement for the agile implementation of emerging technologies.

As organisations move forward and break through new innovation frontiers, the need to balance the benefits of innovation with associated risks will increasingly become important. A global study of the State of Information Security conducted by PwC, for example, shows that 44% of organisations surveyed don't have an overall information security strategy. And less than a third have implemented controls for emerging technologies. In order to build trust in their customers of the future, organisations will need to be transparent on how customer data is used, managed and protected. At the same time, they will need to embrace technological innovation in a more responsible way by proactively implementing robust security frameworks throughout their digital transformation journey.

Keeping up with the pace of innovation and ever increasing customer expectations, while meeting complex regulatory requirements, will require financial services organisations as well as upcoming FinTechs to remain agile. Organisations will have to rely on relationship based business models. They will need to bridge the gap between technology and service providers while working with regulators to test and validate technologies in a highly regulated market. An 'outside in lense' will be necessary to balance the need between technological developments and the human-to-human interactions that customers still demand.

The combination of the "Essential Eight" technologies is, undoubtedly, shaping to become the most disruptive trend within the technology innovation ecosystem. However, ultimately it is a combination of internal and external factors that will dictate how powerful the conversion of emerging technologies will become. Clearly, the availability of good quality data, information security standards, agility of business models and cooperation between business and government will play a key role going forward.

Rav Hayer - Financial services Tech Partner and UK FinTech Lead at PwC

The rapid growth of FinTech in recent years has sparked change across the financial sector. The challenge from new FinTech brands, and opportunities presented by technology-led business models, are fuelling the creation of new value propositions for a broad spectrum of customers.

Santander has a significant presence across the UK and in 10 global markets; supporting business, retail and investment customers. Our challenger mindset and agile ways of working encourage discovery and rapid experimentation. We can leverage our relationships to deliver faster, safer and more seamless products and services.

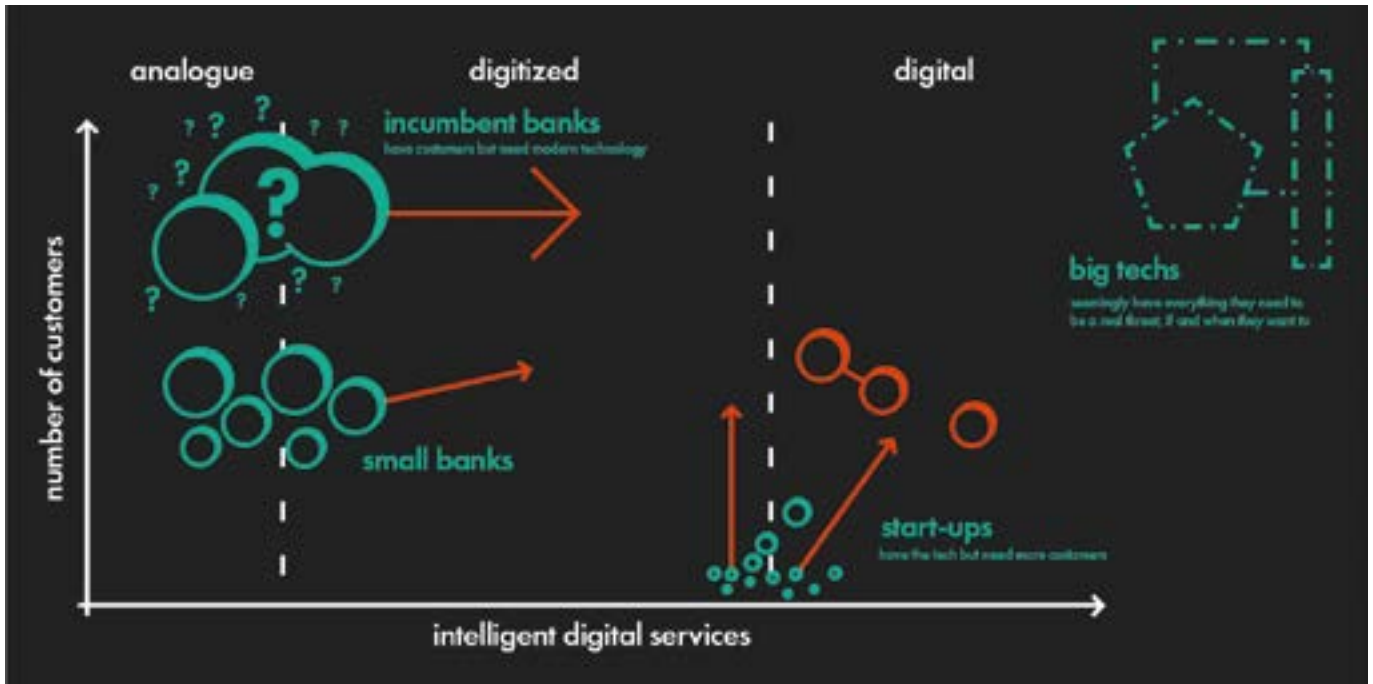
It is in the interests of our customers and the sector as a whole, for banks and FinTech startups to collaborate more closely. We are working with partner FinTechs; smoothing their entry to market and providing access to a large data pool for testing and product refinement, whilst improving our own core capability and customer-centric solutions. For example, last year's launch of OnePayFX by Santander and Ripple Labs transformed ease of international payments for our customers, through low-cost, same-day, cross-border transfers, and peer-to-peer payments.

A solutions-driven partnership between banks and FinTechs will help unlock the immense technological potential in the UK in order to better anticipate and meet customer need.

Stephen Dury - Head of Innovation at Santander UK

Partnerships, Culture & Innovation: The key to future success

Banking Battlefield



Source: IIFS - Banking Battlefield: Winning the War For Customers

The UK has been at the centre of financial services for centuries. More recently, London has emerged as a global hub for FinTech and innovation due to a melting pot of creative, technological, regulatory and purely opportunistic reasons. But we have to guard against complacency because everything that has been built and worked so hard to achieve can disappear without us releasing it already has.

This is especially true for the banks

While just a few years ago it was easier to dismiss new market entrants, firms including Exo, GoCardless, Monzo, Nutmeg, Revolut and TransferWise are now competing with traditional banks' business lines - from international payments, transfers and FX, through to savings, investments and retail accounts.

Meanwhile incumbents have to deal with ever increasing operating costs through legacy technology, resources and real estate. Their innovation spend is just layering more and more cost into their operational spend without decommissioning the spaghetti that keeps the show on the road. Billions spent just to keep the lights on.

This was an acceptable outcome when the game was purely about size of customer base and everyone in financial services was trading water at the same pace. But the world has changed and banks are now busy trying to readjust to the new realities of a new axis based around the level of intelligent digital services.

For that to happen, we have to move away from the talk of digital transformation or innovation, and get down to the job of actually delivering meaningful change.

Banks should be wary of the FinTechs, challenger banks and the tech titans who won't just copy the traditional banking model, they'll be doing something brand new that they would not expect which will cause tension in the market.

But real fear should be saved for the real business-killers; apathy and a lack of respect for the challenge ahead. That's the real opponent. That's where the danger lies and that's what banks have been getting wrong for too long and what let Goliath lose to David.

The important questions are not which technology wave to catch, startup to partner with, or emergent technology to back. They are, with new possibilities being opened up, what is the purpose of banking? What can the bank meaningfully do? What can you achieve with credibility, reliability and capability that customers would want?

A cultural shift

Multiple new entrants have shown the big banks that if you come to market with expertise and the right culture with a real desire and hunger to deliver what customers need, then you can achieve amazing things.

Startups don't need to write a five year business case, they have no "digital" strategy and don't need to get 14 committees to approve. They need to build something that customers want, so they can secure more investment and fast.

We're already seeing some promising signs from the incumbents. Goldman Sachs released Marcus to huge success and RBS launched Mettle, to service small businesses through a truly digital experience. These are the organisations that are trying to rekindle the desire to deliver better customer experiences and what that means for both their customers and themselves.

To achieve this they needed to be agile. Not post-it notes and sheep dipping employees into Kanban training. True agility is not a methodology, it is in product development and engineering, where firms can move from an idea to it being safely and securely executed to their customers in a fraction of the time it currently takes.

New challengers can move at pace because they have a tech stack and a mentality that allows them to. Data is accessible, clean, and available in real-time. Their core banking engines are designed around integrated customer identity systems, not ones that are siloed around product lines. They're easily configurable, allowing the flexibility to create new financial products, and more importantly services, quickly and easily.

Time for action

We are in a fascinating time with a continually shifting banking battlefield. The UK, and London in particular, has built an incredible financial services community that I am proud to be part of and work within.

However, we cannot be complacent. We need to ensure the services created here and those already becoming household names, continue to be founded, funded and supported as they have to make us the undoubted leader in the world.

The incumbent banks also need to change before everything they have built to create their legacy, and I mean in the good way, is eroded through inertia and a culture that is no longer fit for the truly digital age.

It's daunting. But it is also in our collective hands and I believe the UK has the talent, imagination and determination to do it and remain at the forefront of financial services.

Let's get back to work.

David M. Brear - Group CEO at 11:FS

The UK has a long tradition of entrepreneurial enterprise, and its global leadership in FinTech offers an opportunity to reshape financial services in the years to come. To realise this vision, innovative thinking and experimentation must continue to be fostered by government and private sector alike.

A culture of growth begins in translational university research, bringing cutting edge ideas from lab to launch. In the commercial marketplace, the UK's array of preeminent financial institutions must promulgate a growth mindset and increase failure tolerance, to encourage experimentation. UK regulators must provide a receptive climate in which financial innovations can drive inclusion, promote equity, accelerate liquidity improvements, and demonstrate creativity on the world stage. By harnessing the vibrancy of the UK financial ecosystem and all of its participants, the UK can expand and internationalise its culture of innovation both to create economic value and improve society.

David Shrier - Associate Fellow, Said Business School at University of Oxford and Lecturer at MIT Media Lab

Domestic FinTech policy and initiatives

“Millions of consumers and small businesses have already chosen FinTechs over banks, and this trend is only going to continue. In our case we have transformed the customer experience for small business owners. Initiatives like Open Banking enable us to set new standards in the industry and help unlock the true potential of small businesses.”

Christoph Rieche – Co-Founder & CEO at Iwoca

Making the UK the best place in the world to start and grow a FinTech business

“UK customers are digitally savvy and expect top quality financial service products. We’re proud to be able to do that in 2019. We’re able to do this by getting support from the UK government and our UK based business partners. Without them, we would not have a sling to shoot from.”

Matt Leibowitz – Founder & CEO at Stake

The world is being transformed by a technological revolution, with established incumbent firms being challenged by digital innovators. This is particularly true in financial services, where FinTech is changing the way customers bank, invest, insure and pay for things.

Financial services is a key sector of the UK economy and so the government has invested heavily in ensuring that we are also at the forefront of this revolution. This investment has paid off, the UK has been independently assessed as the best place in the world for FinTech, and the government is committed to ensuring that this remains the case.

World leading financial services and thriving tech scene

The UK’s comparative advantage in FinTech is rooted in our world-leading financial and professional services sectors - we have the markets, domestic skills, talent and expertise, and demand for products and services from corporate clients to provide a solid foundation for the growth of our FinTech sector.

Combining this historic strength in financial services with a thriving tech scene, it’s no wonder that the UK is the best place to start and grow a FinTech business. The UK is home to more billion-dollar startups than anywhere else in Europe and has strong domestic demand for FinTech products from consumers, with 42% of digitally active adults using the services of at least one FinTech firm and more than 20 million people using banking apps.

Positive regulatory environment supporting innovation

The focus of UK government support for FinTech has been creating a positive regulatory environment for FinTech. The UK’s main financial services regulator, the FCA has been given a strong competition objective, which led to them establishing an Innovation hub and Regulatory Sandbox.

The Innovation hub helps FinTech firms understand the regulatory framework and provides them with assistance when they make an application for authorisation. Since 2013 the Innovation hub has provided support to over 500 businesses. The Regulatory Sandbox creates a safe space for firms to test revolutionary new products, allowing them to serve real customers, while ensuring that risks to both customers and firms are well managed. Since 2016 almost 100 firms have tested products in the sandbox.

The government has also supported innovation in payment systems, creating a new Payments Systems Regulator (PSR) in 2015, the first of its kind in the world. Like the FCA, the PSR has been given a clear remit to promote and support innovation. The government also legislated to allow non-bank payment service providers direct access to payment systems, creating a level playing field with banks.

Promoting competition in retail banking markets

The UK is at the forefront of efforts to develop and implement Open Banking. In 2017, the Competition and Market Authority, published its ground-breaking Retail Banking Market Investigation Order, which required the nine largest banks in the UK to build standardised systems that allow consumers to safely and securely share their financial information with FinTech firms.

Open Banking allows firms to offer innovative solutions to consumers, from better financial advice, to cheaper loans. The standardisation that sits at the heart of the UK’s Open Banking project, and differentiates it from similar activity in other jurisdictions, also makes it easier and cheaper for FinTech firms to build these services and improves the quality of the products they can offer consumers. Open Banking also allows consumers to make payments without needing to use a credit or debit card.

The FinTech Sector Strategy

The government has made great strides in supporting FinTech, but it also recognises that there are always opportunities to do more. The government's first FinTech Sector Strategy, launched in March 2018, sets out its plans to maintain and extend the UK's comparative advantage in FinTech, and included details of a number of innovative new projects:

Building RegTech solutions - the UK's financial regulators, the FCA and the Bank of England have developed a digital regulatory reporting project. This work, delivered in partnership with industry, is focused on making the process of achieving and maintaining compliance with regulations as efficient and effective as possible.

Helping FinTech firms access talent - ensuring the right mix of skills is critical to the success and growth of the UK's FinTech sector. In order to build a domestic talent pipeline, the government has partnered with Barclays to deliver a Connect with Work project, which aims to introduce young people from diverse backgrounds to careers in FinTech.

Exploring new forms of financial services infrastructure - the government's financial services Trade and Investment Board has sponsored work to investigate the potential benefits associated with shared utilities that promote economies of scale in complex financial services markets.

Facilitating partnerships with incumbents - the government-funded FinTech Delivery Panel published a set of 'Onboarding Guidelines' in November 2018, which help FinTech firms partner with incumbents. Barclays, Lloyds Banking Group, HSBC, RBS and Santander have committed to fully implementing these guidelines.

Delivering the benefits of FinTech across the UK - at present the UK's FinTech sector is concentrated in London, with 80% of FinTech firms based in the capital. To ensure that the whole of the UK benefits from FinTech, the government has announced six Regional FinTech Envoys charged with fuelling the growth of firms across the country.

Harnessing the potential of emerging technologies - the government's FinTech Sector strategy announced the creation of a Cryptoassets Taskforce, comprised of HM Treasury, the FCA and the Bank of England, to explore further the risks of cryptoassets and the potential benefits of the underlying distributed ledger technology (DLT). The Task Force published its final report in October 2018, which set out actions the government and financial regulators will take to mitigate the risks that cryptoassets pose to consumers and market integrity; to prevent the use of cryptoassets for illicit activity; to guard against threats to financial stability that could emerge in the future; and to encourage responsible development of legitimate DLT and crypto-asset related activity in the UK.

UK FinTech Week

In 2017 and 2018, HM Treasury hosted an International FinTech Conference, bringing together investors, UK FinTech firms, and key industry figures to celebrate the UK's position as a global leader in FinTech and interact with policy-makers on the evolving landscape for these businesses. Keynote speeches, panel discussions, and workshops highlighted the UK's innovative approach to regulation and policy that makes our sector both a global leading FinTech hub and a valuable destination for investment. Speakers included Mark Carney, Governor of the Bank of England, Adrienne Harris, former adviser to the Obama administration, and Andrew Bailey, Head of the FCA. The best of the UK's FinTech talent also had the opportunity to pitch directly to global investors. Each conference brought together over 100 FinTech firms and over 400 domestic and international investors, leading to an increase in capital investment in the UK sector. HM Treasury look forward to supporting Innovate Finance's Global Summit and a range of events taking place during UK Fintech Week 2019.

By HM Treasury

International initiatives for UK FinTech

“WorldRemit sends money from 50 to 150 countries, operating in over 6,500 remittance corridors and serving 4 million customers worldwide. Access to capital, diverse talent and a growing migrant population with a strong appetite for low-cost digital alternatives to send their money back home, have been crucial to our fast growth. The UK’s progressive approach to FinTech regulation enables early stage companies to innovate, scale at pace and compete on the global stage.”

Ismail Ahmed - Founder & Executive Chairman at WorldRemit

Making UK FinTech more competitive globally

As the UK continues to focus on its international trade policy, this presents an important opportunity for the financial services sector and UK FinTech exports. The UK is taking a creative and ambitious approach to financial services trade policy to facilitate detailed discussions on cross-border market access, ensure advanced, fair and transparent operating environments, and support the growth and competitiveness of the UK FinTech sector with new financial services, payments and data at the forefront of policy development.

As the UK's financial services industry expands it will ensure the continued competitiveness of the City of London as a major global financial centre. This will support growth and jobs in the UK and our partners' economies, as new policy provisions are implemented and trade friction is reduced to develop more effective shared markets.

The UK remains a world-leading destination for the best global talent and our migration system helps to ensure we are at the forefront of digital and scientific advances. The Exceptional Talent Visa is available to leaders in the digital technology, science, arts and creative sectors, ensuring UK businesses in these fields have access to the best talent from across the world; while our new Startup and Innovator Visas make it faster and easier for talented entrepreneurs to come to the UK and start a business.

FinTech is clearly a growing sector of importance for the UK internationally. The sector's growth is unprecedented and there are several ongoing international initiatives that the UK government is leading on for the benefit of the UK FinTech ecosystem, both domestically and abroad.

These include:

FinTech Steering Board

DIT's FinTech steering board brings together academics, industry experts, government and regulators to drive investment into the sector, which is at the forefront of the UK's global technology and innovation proposition. The Board is chaired by the City of London's Lord Mayor.

FinTech Bridges

The UK has entered 5 FinTech Bridge agreements with other FinTech hubs including Singapore, South Korea, China, Hong Kong, and Australia. These bespoke agreements create valuable opportunities for the UK by overcoming barriers to international market entry and linking UK-based FinTechs with opportunities for international investment through:

- Collaboration between key players in the UK FinTech sector and in Bridge markets on emerging market trends
- Regulatory agreements that support firms to overcome market access barriers in each jurisdiction

By sharing knowledge and best-practice with Bridge jurisdictions, and aligning international FinTech policy development, we are increasing opportunities for FinTech firms to export solutions to key markets at pace. Each Bridge enables firms licensed by the FCA to be referred directly to regulators in Bridge markets, easing the process of obtaining a license and smoothing access to priority international markets.

FinTech Bridges Pilot Program

DIT's primary goal for the Bridge Pilot Program in the coming months is to demonstrate the success of the UK's world-leading FinTechs and to support their business growth. The Pilot Program has been devised to be run across the Australia and Hong Kong Bridges to establish the success in helping companies to scale from the UK into a Bridge market. 10 UK FinTech companies will be selected to participate in each of the two programmes (Australia and Hong Kong). A tailored support programme will be developed for each of the FinTech companies to run throughout 2019, culminating with a trade mission to a flagship conference in market. The ultimate goal of the programme is to provide essential, connections and assistance, thereby accelerating their ability to set-up business in the bridge market during the year. Once the pilot is complete, the aim is to put forward recommendations to create a scalable programme across other Bridge markets supporting and accelerating the growth of bilateral trade related to FinTech.

Emerging markets

The UK is a globally recognised hub of FinTech excellence, with a wealth of unique expertise to offer developing countries. Leveraging the City of London to empower and enable FinTech in emerging markets to grow successful business has the potential to stimulate growth, create jobs, drive financial inclusion and make it easier for UK companies to enter and invest in markets of the future.

This is where departments across UK government, such as the Department for International Development (DFID) have long championed the significant role that financial technology can play in increasing access to, and reducing the cost of, financial services in developing countries. Learning from the UK's success at pioneering regulatory tools and approaches to enable FinTech growth, DFID is working with regulators and policymakers across a range of developing countries to help put the building blocks in place for well-functioning digital finance ecosystems, including modernising payment infrastructure and supporting conducive regulatory environments. In partnership with Vodafone, DFID support provided seed funding to M-PESA in 2007, one of the most successful mobile money services globally, radically expanding financial inclusion in East Africa and providing a platform on which emerging FinTech continues to flourish.

As part of this vision, and to showcase how support may be provided for the development of FinTech more widely, DIT is currently piloting ways of working together with DFID. FinTech can be an enabler for broader financial reform and stability, as well as in introducing innovation which may directly benefit those who are the most financially excluded. It is for this reason that partnering with DFID will not only help in better sharing regulatory best practice abroad, but in also better matching where UK (and international) FinTech expertise might be best deployed to help drive efforts around financial inclusion, and the digitisation of financial services.

By creating sound, stable and supportive financial ecosystems abroad, coupled with facilitating useful collaborations between the UK FinTech sector and those in emerging markets, our ambition is to promote greater financial inclusion and drive greater cross-border flows of activity.

UK-Africa FinTech Partnership

In August 2018 the Prime Minister announced the first UK-Africa FinTech partnership, which aims to deepen collaboration and build relationships between African and UK FinTech industries. The partnership is coordinated by DFID and has three features:

1. Identifying business opportunities - the Africa FinTech Investment Group is a sub-group of DIT's FinTech Steering Board and brings together the collective expertise of the UK and African FinTech communities to identify investment opportunities to support the development of the thriving African FinTech industry.
2. Building capacity within the regulators - a DFID partnership with the FCA will support regulation of FinTech in Africa, to be piloted in Kenya and Nigeria.
3. Taking African FinTech innovations to scale - a £2m FinTech fund is helping Nigerian FinTechs with a focus on financial inclusion to take their innovations to scale. DFID may expand this offer to other African markets.

Women in FinTech

The Women in FinTech Global Initiative is aimed at bringing more female entrepreneurs to the UK and to help make the UK's FinTech ecosystem more diverse.

The initiative has three pillars. First is creating an opportunity for likeminded women to meet, inspire, advise and mentor each other. Second is the chance to connect female entrepreneurs with a supportive investment community that understands the challenges that women face. Third is to provide valuable scaling guidance by working with accelerators and incubators to offer women support through their programmes. NatWest is the first company to support DIT's accelerator programme by offering places to women FinTech entrepreneurs to take part in the 18-month fully-funded programme. The cohort will be offered bespoke coaching, learning, workshops and free office space.

The VCs and investors supporting the initiative include Motive Partners, Anthemis Group and Octopus Ventures.

David Bartlett - Head of Financial & Professional Services at Department for International Trade

The UK has built a reputation as the home of innovative trailblazers in the payments sector. Bacs launched in 1968, and we were a first with Faster Payments in 2008. Over the last decade Faster Payments transitioned from a radical idea around enabling instant payments to become a platform for innovation and a world leader. It now has nearly 30 participants in the UK, and in the last year alone, transaction volumes increased by 23%. As the global appetite for state-of-the-art payments solutions grows, the UK continues to set the pace. We now take for granted transferring money in real-time, paying by contactless or smartphone - however innovation is not just about technological advances, it's about adding real value to users. At Vocalink, we believe 'thoughtful innovation' is central to the payments sector by making the system safer and more resilient, and tackling both current and future consumer needs.

Vocalink's strong heritage in the UK includes the designing, building and operating of the nation's payments infrastructure. Today, Vocalink is active all around the world, driving financial inclusivity and powering economies through technology-led solutions.

It is our belief that innovation is thriving in the UK, particularly in the payments sector, and thoughtful innovation will continue to be at the heart of what we do.

Paul Stoddart - CEO at Vocalink & President of New Payments Platforms at Mastercard

Key milestones

2008

2009

2010

2011

2012

2013

2014

2015

Financial Crisis

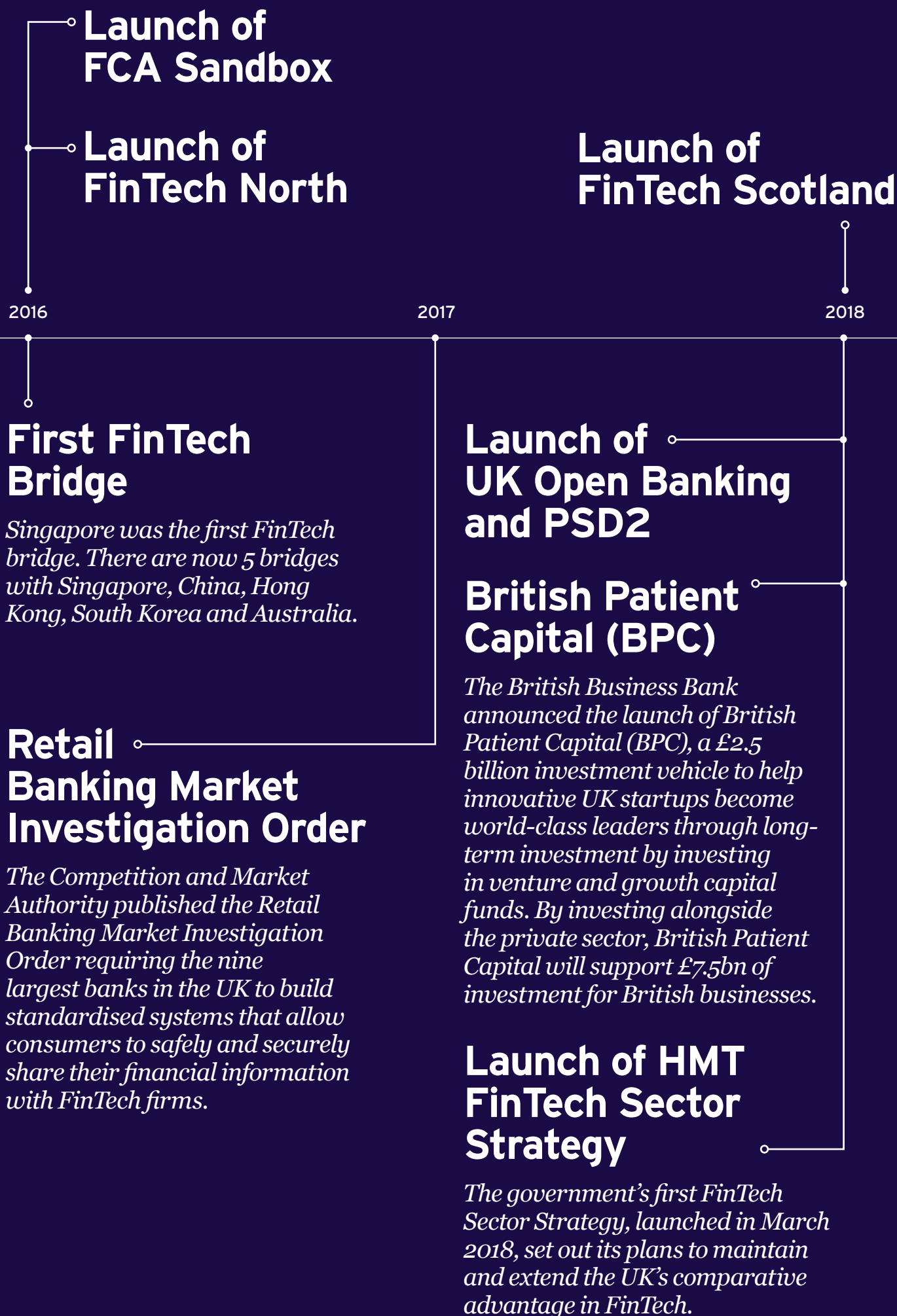
Global Financial Crisis created an impetus for numerous regulatory reforms and a shifting public perception towards financial services, creating an opportunity for new, competitive players to join the market with a technology-first approach.

FCA's Project Innovate Launch

The purpose was to help firms tackle regulatory barriers to innovation, be it through clarifying regulatory expectations, examining the FCA's own rules or enacting policy changes. This in turn, provided firms the space to innovate in the interests of consumers.

Innovate Finance Launched

Founded in August 2014, Innovate Finance, an independent membership organisation, formed out of a government consultation to represent the FinTech sector and promote FinTech member companies. The Innovate Finance Global Summit was also launched as a flagship event to convene the global FinTech community to the FinTech capital of the World, London.



Closing remarks



As we reflect on the last ten years, the face of financial and professional services in the UK has transformed. Innovation is now firmly at the heart of the sector and the UK has emerged to become the global hub for FinTech.

The UK FinTech sector employs over 76,500 people and generates a revenue of £6.6 billion pounds. Whether it be investment in FinTech, the role of the regulator, government policy or the abundance of skills, talent and diversity; the UK has laid solid foundations for its future in the FinTech industry.

The strength of the UK's growing FinTech sector is fast receiving global interest. During my visits overseas, FinTech has become a major topic of conversation; international companies are keen to hear about the strength of the UK's FinTech ecosystem and explore opportunities for collaboration with British FinTech firms.

When promoting the UK's FinTech sector abroad, it is essential that we have a cohesive voice, both at government and industry level. The State of the Nation is a perfect example of this; revealing the scale and depth of FinTech across the UK and acknowledging the fundamental work of government and industry in creating a welcoming and healthy environment for FinTech firms to thrive.

As Chair of the Department for International Trade's FinTech Steering Board, this document will act as a benchmark for future discussions around FinTech, offering a strong understanding of the UK FinTech industry today, so we can build on our success for tomorrow.

The Rt. Hon the Lord Mayor of City of London Peter Estlin

Sources

- 11FS - Banking Battlefield: Winning the War For Customers (23rd May 2018), also available at: <https://11fs.com/blog/banking-battlefield>
- Beauhurst - Why you should keep an eye on accelerators and their cohort (18th January 2019)
- BVCA - Letter to HM Treasury: Financing Growth in Innovative Companies (22nd September 2017)
- Centre for Entrepreneurs (CFE) - Business formations recover to reach new high in 2018 (14th January 2019)
- City of London Corporation - Global investment: driving UK jobs and growth in financial services (2018)
- Competition and Markets Authority's (CMA) - Retail banking market investigation - Final Report (2016)
- Crunchbase Data - Funding Circle (IPO stock price) assessed: 26 March 2019 - also available at: <https://www.crunchbase.com/organization/funding-circle#section-ipo-stock-price>
- Crunchbase Data - Monzo (funding section) assessed: 26 March Series E Funding (GBP 85m - FX rate at 31 Oct 2018) - also available at: <https://www.crunchbase.com/organization/monzo#section-funding>
- Deloitte & Innovate Finance - A journey through the FCA regulatory sandbox (2018)
- Deloitte, The City UK, Santander - Splitting the bill: the role of platforms in financial services Regulation (2018)
- Department for Business, Energy & Industry Strategy - Business Incubators and Accelerators: The National Picture (2017)
- EY - FinTech Adoption Index (2017)
- EY - UK Attractiveness Survey: in transition (2018)
- EY, HM Treasury and Innovate Finance - UK FinTech Census (2017)
- FCA - Regulation innovation: a global enterprise, by Christopher Woolard - Executive Director of Strategy and Competition at the FCA (20th March 2018), available at: <https://www.fca.org.uk/news/speeches/regulating-innovation-global-enterprise>
- FCA - Regulatory sandbox lessons learned report (2017)
- FinTech Futures - Convergence of RPA and AI: the changing landscape in banking compliance (14th May 2018)
- HM Revenue & Customs - Research and Development Tax Credit Statistics (2018)
- Innovate Finance - Supporting UK FinTech: Accessing a Global Talent Pool (2018)
- Innovate Finance - UK FinTech VC Investment Sector Analysis 12 February 2019, Data provided by Pitchbook
- Intellipaat - The Convergence of Blockchain, IoT and AI (3rd September 2018) - also available at: <https://intellipaat.com/blog/convergence-blockchain-iot-ai/>
- Tech Dragons - Interview of Chris Ganje, CEO of Amplyfi by Nicholas Fearn (Tech Dragons) (5th January 2019) - also available at: <http://techdragons.wales/interview-chris-ganje-ceo-of-amplyfi/>
- Investni - 300 New Tullett Prebon Jobs Will Contribute Over £9.9m in Salaries to Economy Each Year (2nd August 2016) - also available at: <https://www.investni.com/news/300-new-tullett-prebon-jobs.html>
- KPMG International - The Pulse of FinTech 2018 H2, released 13 February 2019 (Data provided by Pitchbook at 4 January 2019)
- Medium - The convergence of AI and Blockchain: what's the deal? (1st December 2017) - also available at: https://medium.com/@Francesco_AI/the-convergence-of-ai-and-blockchain-whats-the-deal-60c618e3acc
- Office for National Statistics - Foreign direct investment involving UK companies: 2017 (4 December 2019)
- Pitchbook Data: VC and CVC average value per deal (UK FinTech investment) assessed 18 October 2018, Analysis by KPMG LLP in the UK
- Pitchbook Data: VC and CVC deal volume (UK FinTech investment) assessed 4 January 2019, Analysis by KPMG LLP in the UK
- PwC - 22nd Global CEO Survey (2019)
- PwC - Automation Now: Your business - automated and empowered - also available at: <https://www.pwc.com/us/en/services/consulting/library/unlocking-automation-value.html>
- PwC - Global Blockchain Survey (2018)
- PwC - Global FinTech Survey (2016)
- PwC - Redrawing the lines (2017)
- PwC - The Essential Eight technologies: how to prepare for their impact (2016)
- PwC - The Essential Eight Technologies Revolutionising Business (2018)
- PwC - Technology and Innovation in Europe's Capital Markets (2018)
- PwC - Strengthening digital society against cyber shocks (2018)
- QS Top Universities - World University Rankings (2019)
- Tech Nation - Connection and collaboration: powering UK tech and driving the economy (2018) - also available at: <https://technation.io/insights/report-2018>

Contributors



11:FS is the challenger firm defining and building digitally native financial services. They've assembled the world's top banking, FinTech and insurance leaders to transform traditional banks from within, and build new banking services from scratch. They field interdisciplinary teams bringing the best designers, product experts, consultants, researchers, technologists and domain specialists together to deliver tangible outcomes in the shortest possible time frames. By combining corporate expertise with startup agility in the way they work, the way they think and the way they build propositions, they are uniquely placed to help overcome legacy systems, create new business models, and develop the best next-generation, customer-centric services.



The British Private Equity & Venture Capital Association (BVCA) is the industry body and public policy advocate for the private equity and venture capital industry in the UK. For more than three decades they have represented the industry and delivered authoritative research and analysis, proprietary publications, specialist training, topical conferences and best practice standards. Their membership comprises more than 750 influential firms, including over 300 private equity and venture capital houses, as well as institutional investors, professional advisers, service providers and international associations. They work together to provide capital and expertise to growing businesses, to unlock potential and to deliver enhanced returns to the millions who directly and indirectly invest in their industry.



The financial and professional services industry is key to the ongoing prosperity of the UK. It provides exports more than double those of any other sector, and significant contributions to employment, tax and productivity - across the country. The City of London Corporation works with partners in industry and local and national governments across the UK, to keep the UK competitive into the future: nurturing innovative sectors, securing the best environment for firms to thrive, supporting inclusive and sustainable growth, and showcasing the sector's UK-wide offer. They work to promote the industry to overseas markets: attracting and retaining investment, building partnerships and sharing expertise to secure long-term, worldwide trading relationships.



Deloitte LLP is a leading professional services firm committed to making an impact that matters for our clients, our people and society. They bring a breadth of skills and industry knowledge in providing high-quality audit, advisory, tax, legal and consulting services to clients across the financial services industry and FinTech ecosystem. As part of a globally connected network of member firms in more than 150 countries, Deloitte's industry specialists provide comprehensive, integrated solutions to the FinTech sector to help their clients meet their goals, plan new strategies, and keep up-to-date on changes in technology, regulation and customer expectations.



At EY financial services, they share a single focus - to build a better financial services industry, not just for now, but for the future. They train and nurture their inclusive teams to develop minds that can transform, shape and innovate financial services. It's because they have minds made for financial services that they ask better questions. Better questions lead to better answers that benefit their people, their clients and their communities. It's how they play their part in building a better working world.



The Financial Conduct Authority is the conduct regulator for 58,000 financial services firms and financial markets in the UK and the prudential regulator for over 18,000 of those firms.



FinTech North is the focal point for the FinTech community in the Northern Powerhouse. It is an open and collaborative platform for sharing ideas, challenges and best practice, for showcasing innovative startups and scale-ups and for facilitating the connections and collaborations which create real value for businesses and consumers.



FinTech Scotland has been established to secure Scotland's place as a top five global FinTech centre. To succeed they bring together entrepreneurs, the established financial sector, the public sector, accelerators, investors, consumer groups, technology and service firms, universities and skills agencies.



Northern Ireland attracts global companies because of its blend of an exceptionally skilled workforce with a strong work ethic and highly competitive operating costs. The region has accumulated a number of industry accolades with Belfast ranked as the top destination for financial technology investment projects, the top city in Europe for new software development projects and the top international location for US cyber security development projects. Invest Northern Ireland, the region's economic development agency, works in an ongoing partnership with investors offering business advice and financial assistance in order to develop and expand the business and to improve capability and international competitiveness.



KPMG LLP, a UK limited liability partnership, operates from 22 offices across the UK with approximately 16,300 partners and staff. KPMG is a global network of professional services firms providing Audit, Tax and Advisory services. They operate in 153 countries and territories and have 207,000 people working in member firms around the world. The independent member firms of the KPMG network are affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. Each KPMG firm is a legally distinct and separate entity and describes itself as such. KPMG FinTech professionals include partners and staff in over 50 FinTech hubs around the world, working closely with financial institutions and FinTech companies to help them understand the signals of change; identify the growth opportunities; and to develop and execute on their strategic plans.



At PwC, their purpose is to build trust in society and solve important problems. They are a network of firms in 158 countries with over 250,000 people who are committed to delivering quality in assurance, advisory and tax services. They have an end-to-end FinTech team engaged at all points of the innovation ecosystem. Working across both start-ups and established financial services firms, their team advise on strategy, integration of FinTech into business processes, facilitate partnerships and offer support as firms scale and mature.



Tech Nation is a government-backed organisation helping to accelerate the growth of the digital tech sector across the UK, and make the UK the best place in the world to imagine, start and grow a digital tech business. Its mission is to empower tech entrepreneurs to grow faster through knowledge and connections, to build a UK economy that is fit for the next generation. It does this by running growth programmes, developing digital entrepreneurship skills through its online Digital Business Academy, through its visa scheme for exceptional talent and by championing the UK's digital sector through data, stories and media campaigns.



Established in 2012, Whitecap Consulting is a regional strategy consultancy headquartered in Leeds, with offices in Manchester, Milton Keynes, Bristol and Newcastle. Whitecap works with executives, boards and investors of predominantly mid-sized organisations, typically with a turnover of c£10m-£300m, helping them analyse, develop and implement growth strategies. Whitecap works with clients across multiple sectors, with financial services and FinTech being key areas of focus.



Department for International Trade

invest.great.gov.uk

Department for International Trade

The Department for International Trade (DIT) helps businesses export, drives inward and outward investment, negotiates market access and trade deals, and champions free trade.

We are an international economic department, responsible for:

- supporting and encouraging UK businesses to drive sustainable international growth
- ensuring the UK remains a leading destination for international investment and maintains its number one position for international investment stock in Europe
- opening markets, building a trade framework with new and existing partners which is free and fair
- using trade and investment to underpin the government's agenda for a Global Britain and its ambitions for prosperity, stability and security worldwide.

Disclaimer

Whereas every effort has been made to ensure that the information in this document is accurate, the Department for International Trade and the Contributors accept liability for any errors, omissions or misleading statements, and no warranty is given or responsibility accepted as to the standing of any individual, firm, company or other organisation mentioned.

© Crown Copyright 2019

You may re-use this information free of charge in any format or medium, strictly in accordance with the terms of the Open Government Licence.

To view this licence, visit:

www.nationalarchives.gov.uk/doc/open-government-licence

or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information in the material that you wish to use, you will need to obtain permission from the copyright holder(s) concerned.

Any enquiries regarding this material should be sent to us at enquiries@trade.gov.uk